BEFORE THE ENERGY FACILITY SITING COUNCIL OF THE STATE OF OREGON

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In the Matter of Request for Amendment 5 for the Montague Wind Power Facility

DRAFT-PROPOSED ORDER ON REQUEST FOR AMENDMENT 5 TO THE SITE CERTIFICATE

June 26 July 30, 2020

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Attachment B

Reviewing Agency Comments on preliminary Request for Amendment 5

Attachment C

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<u>Attachment D Draft Amended Habitat Mitigation Plans</u> Draft Amended Montague Wind Facility Habitat Mitigation Plan Draft Montague Solar Facility Habitat Mitigation Plan Draft Oregon Trail Solar Facility Habitat Mitigation Plan

Attachment E Draft Amended Revegetation Plans Draft Amended Montague Wind Facility Revegetation Plan Draft Montague Solar Facility Revegetation Plan Draft Oregon Trail Solar Facility Revegetation Plan

Attachment F Draft Weed Control Plans

Draft Amended Montague Wind Facility Weed Control Plan Draft Montague Solar Facility Weed Control Plan Draft Oregon Trail Solar Facility Weed Control Plan Attachment G Draft Amended Wildlife Monitoring and Mitigation Plans Draft Amended Montague Wind Facility Wildlife Monitoring and Mitigation Plan Draft Montague Solar Facility Wildlife Monitoring and Mitigation Plan Draft Oregon Trail Solar Facility Wildlife Monitoring and Mitigation Plan

<u>Attachment H Cultural, Historic and Archeological Resource Mitigation Plans</u> Inadvertent Discovery Plan (Montague Wind, Montague Solar and Oregon Trail Solar) Draft Amended Montague Solar Facility Historic Properties Management Plan

1 I. INTRODUCTION

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The Oregon Department of Energy (Department or ODOE) issues this draft-proposed order, in 3 accordance with Oregon Revised Statute (ORS) 469.405(1) and Oregon Administrative Rule 4 5 (OAR) 345-027-03670371, based on its review of Request for Amendment 5 (amendment request or RFA5) to the Montague Wind Power Facility site certificate, as well as comments and 6 7 recommendations received by specific state agencies and local governments during review of 8 the preliminary amendment request. This proposed order also considers comments received on the record of the draft proposed order from June 26 through July 23, 2020 and comments 9 received from the Energy Facility Siting Council (Council or EFSC) following its review of the 10 11 draft proposed order at the July 24, 2020 Council meeting. The certificate holder is Montague 12 Wind Power Facility, LLC (hereinafter referred to as certificate holder), a wholly owned subsidiary of Avangrid Renewables, LLC. 13 14 15 The certificate holder requests that Energy Facility Siting Council (EFSC or Council) approvale of the following changes to the site certificate-to: 16 17 18 Amend the Montague Wind Power Facility site certificate to cover Phase 1 facility 19 components (201 MW, 56 wind turbines with maximum blade tip height of 492 feet) 20 within reduced site boundary (47,056 to 29,607 acres) Allocate previously approved Phase 2 facility components into two new site certificates, 21 • based entirely on the approved Montague Wind Power Facility site certificate, to be 22 owned and operated by new limited liability companies (LLC) owned by current 23 24 certificate holder owner, Avangrid Renewables LLC. The amendment request seeks 25 approval to use or occupy more area for the layout of previously approved solar 26 photovoltaic energy generation equipment (increase maximum footprint from 1,189 to 27 2,725 acres). Montague Solar Facility: to include 1,496 acre solar micrositing area (1,189 acres) 28 previously approved, plus proposed addition of 307 acres) and 162 MW of 29 30 previously approved solar photovoltaic energy generation equipment and 31 related or supporting facilities, within 1,763 acre site boundary. Oregon Trail Solar Facility: to include a proposed 1,228 acre solar micrositing 32 0 33 area and 41 MW of previously approved wind and solar facility components, including up to 16 wind turbines with maximum blade tip height of 597 feet or 34 up to 1,228 acres of solar photovoltaic energy generation equipment, or any 35 36 combination of wind and solar energy generation equipment not to exceed 41 37 MW, and related or supporting facilities, within a 13,866 acre site boundary. 38 Proposed new related or supporting facilities include a 2-acre switching station 39 comprised of circuit breakers, switches, and other auxiliary equipment to link the Oregon Trail Solar Facility to the Montague Solar collector substation 40 Amend Council's previous goal exception taken for a 1,189 acre solar micrositing area 41 • under the statewide policy embodied in Goal 3, Agricultural Lands, to cover the 42

1	proposed expansion from 1,189 to 2,725 acres. The amended goal exception would then
2	apply to solar micrositing areas under the Montague Solar Facility (1,496 acres) and
3	Oregon Trail Solar Facility (1,228 acres) site certificates.
4	 To be included in the amended and new site certificates:
5	 Alternative 3.6 mile route segment for previously approved 230 kV transmission
6	line
7	 Removal of Condition 89(a) 200 foot setback for transmission lines to residential
8	structures
9	 Administratively amend/delete site certificate conditions based on allocation of
10	Phase 1 and Phase 2 facility components into amended and new site certificates
11	
12	In the amendment request, the certificate holder requests that Council apply the transfer
13	process under OAR 345-027-0400 based on the change in certificate holder for the site
14	certificates that would be issued for Montague Solar Facility and Oregon Trail Solar Facility.
15	However, because the owner of the new certificate holders, or the owner of the entity to be in
16	control or possession of the facility would remain Avangrid Renewables, LLC – the existing
17	certificate holder owner - in accordance with the intent of the language under OAR 345-025-
18	0006(15), the Department recommends Council find that changes in certificate holder, when
19	the certificate holder is a sole purpose limited liability company reliant upon its parent
20	company, and the parent company is the owner of the certificate holder, not to trigger the OAR
21	345-027-0400 transfer process.
22	
22 23	While the certificate holder seeks approval to split the Montague Wind Power Facility site
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1	approved or in operation, at the time of the amendment request. This clarification is intended
2	to establish that, with the splitting of facility components under three site certificates, that
3	baseline conditions and environmental impacts are not adjusted in a way that results in greater
4	overall impacts than the level of impacts that would be authorized under one site certificate.
5	
6	Based upon review of this amendment request, in conjunction with comments received from
7	the general public and recommendations received by state agencies and local government
8	entities, the Department recommends that the Council approve and grant a fifth amendment to
9	the Montague Wind Power Facility site certificate subject to the existing and recommended
10	new and amended conditions set forth in this draft p roposed order. If approved, the amended
11	site certificate would result in an amended site certificate for the Montague Wind Facility and
12	original site certificates for the Montague Solar Facility and Oregon Trail Solar Facility, inclusive
13	of all conditions previously imposed in the Montague Wind Power Facility site certificate, unless
14	otherwise evaluated in this order.
15	
16	I.A. Certificate Holder and Owner Information
17	
18	Montague Wind Power Facility
19	
20	The current certificate holder for the Montague Wind Power Facility site certificate is as
21	follows:
22	
23	Montague Wind Power Facility, LLC
24	1125 NW Couch Street, Suite 700
25	Portland, OR 97209
26	
27	The current certificate holder owner (parent company) for the Montague Wind Power Facility
28	site certificate is as follows:
29	
30	Avangrid Renewables, LLC
31	Dertland OR 07200
32	Portiand, OR 97209
33 24	Montagua Salar Facility
34 25	Montague Solar Facinity
22 26	The proposed cortificate holder for the Montague Solar Facility site cortificate is as follows:
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40 41	
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 1125 NW Couch Street, Suite 700 Portland, OR 97209 Oregon Trail Solar Facility Oregon Trail Solar Facility The proposed certificate holder for the Oregon Trail Solar Facility site certificate is as follows: Oregon Trail Solar, LLC 1125 NW Couch Street, Suite 700 Portland, OR 97209 The certificate holder owner (parent company) for the Oregon Trail Solar Facility site certificate is as follows: Avangrid Renewables, LLC, 1125 NW Couch Street, Suite 700 Portland, OR 97209 Avangrid Renewables, LLC, 1125 NW Couch Street, Suite 700 Portland, OR 97209 I.B. Operational and Approved Facility Components, Site Boundary and Micrositing Corridors The Montague Wind Power Facility is a wind and solar energy generation facility that includes facility components currently in operation; and, facility components that were previously approved but not yet been constructed. The facility was approved to be developed in two phases, Phase 1 and Phase 2. Phase 1 commenced operation in October 2019 and includes 201 MW 06 wind energy generation components. Wind energy generation components and related or supporting facilities include: 56 wind turbines with a maximum blade tip height of 499 feet; an above- and belowground 34.5 kV electrical collection system; fiber optic communications network; Supervisory, Control and Data Acquisition (SCADA) system; one collector substation Phase 1 collector substation); aboveground, approximately 10 mile single-circuit 230-kV transmission line; four permanent meteorological towers; access roads; public roadway modifications; and temporary laydown areas and crane paths. Phase 2 is approved for up to 202 MW of wind and solar energy generation equipment, including any combination of up to 81 wind turbines with a maximum blade tip height ranging from 486 to 597 feet and solar photovoltaic equipment occupy	1	Avangrid Renewables, LLC,
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 (Phase 1 collector substation); aboveground, approximately 10 mile single-circuit 230-kV transmission line; four permanent meteorological towers; access roads; public roadway modifications; and temporary laydown areas and crane paths. Phase 2 is approved for up to 202 MW of wind and solar energy generation equipment, including any combination of up to 81 wind turbines with a maximum blade tip height ranging from 486 to 597 feet and solar photovoltaic equipment occupying up to 1,189 acres (solar micrositing area). Related or supporting facilities include an above- and belowground electrical collection system; SCADA System; one collector substation; an approximately 14-mile 230 kV transmission line (includes the 10-mile 230 kV transmission line constructed as part of Phase 1); 	29	network: Supervisory, Control and Data Acquisition (SCADA) system: one collector substation
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 modifications; and temporary laydown areas and crane paths. Phase 2 is approved for up to 202 MW of wind and solar energy generation equipment, including any combination of up to 81 wind turbines with a maximum blade tip height ranging from 486 to 597 feet and solar photovoltaic equipment occupying up to 1,189 acres (solar micrositing area). Related or supporting facilities include an above- and belowground electrical collection system; SCADA System; one collector substation; an approximately 14-mile 230 kV transmission line (includes the 10-mile 230 kV transmission line constructed as part of Phase 1); 	31	transmission line: four permanent meteorological towers: access roads: public roadway
Phase 2 is approved for up to 202 MW of wind and solar energy generation equipment, including any combination of up to 81 wind turbines with a maximum blade tip height ranging from 486 to 597 feet and solar photovoltaic equipment occupying up to 1,189 acres (solar micrositing area). Related or supporting facilities include an above- and belowground electrical collection system; SCADA System; one collector substation; an approximately 14-mile 230 kV transmission line (includes the 10-mile 230 kV transmission line constructed as part of Phase 1);	32	modifications: and temporary laydown areas and crane paths.
Phase 2 is approved for up to 202 MW of wind and solar energy generation equipment, including any combination of up to 81 wind turbines with a maximum blade tip height ranging from 486 to 597 feet and solar photovoltaic equipment occupying up to 1,189 acres (solar micrositing area). Related or supporting facilities include an above- and belowground electrical collection system; SCADA System; one collector substation; an approximately 14-mile 230 kV transmission line (includes the 10-mile 230 kV transmission line constructed as part of Phase 1);	33	
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 from 486 to 597 feet and solar photovoltaic equipment occupying up to 1,189 acres (solar micrositing area). Related or supporting facilities include an above- and belowground electrical collection system; SCADA System; one collector substation; an approximately 14-mile 230 kV transmission line (includes the 10-mile 230 kV transmission line constructed as part of Phase 1); 	35	including any combination of up to 81 wind turbines with a maximum blade tip height ranging
 micrositing area). Related or supporting facilities include an above- and belowground electrical collection system; SCADA System; one collector substation; an approximately 14-mile 230 kV transmission line (includes the 10-mile 230 kV transmission line constructed as part of Phase 1); 	36	from 486 to 597 feet and solar photovoltaic equipment occupying up to 1,189 acres (solar
 collection system; SCADA System; one collector substation; an approximately 14-mile 230 kV transmission line (includes the 10-mile 230 kV transmission line constructed as part of Phase 1); 	37	micrositing area). Related or supporting facilities include an above- and belowground electrical
transmission line (includes the 10-mile 230 kV transmission line constructed as part of Phase 1);	38	collection system; SCADA System; one collector substation; an approximately 14-mile 230 kV
	39	transmission line (includes the 10-mile 230 kV transmission line constructed as part of Phase 1);
40 up to 8 permanent meteorological towers; new, temporary and substantially modified access	40	up to 8 permanent meteorological towers; new, temporary and substantially modified access
41 roads; 100 MW of lithium-ion or flow battery storage system; and temporary laydown areas.	41	roads; 100 MW of lithium-ion or flow battery storage system; and temporary laydown areas.

- 1 Within the solar micrositing area, solar photovoltaic energy generation equipment could
- 2 include up to 867,000 modules consisting of solar panels, trackers, racks, posts,
- 3 inverter/transformer units and above- and belowground cabling. Solar panels would be

4 supported by approximately 260,000 galvanized steel posts, which would be hydraulically

- 5 driven into the ground at a depth of 5 to 8 feet, with an approximately 4 to 5.5-foot
- 6 aboveground height. Solar panels would be designed with anti-reflective coating. Modules
- 7 would be placed on non-specular metal galvanized steel racks, with heights ranging from 4 to
- 8 15 feet at full tilt. To convert energy generated within the modules from alternating current (ac)
- 9 to direct current (dc), up to 102 inverter/transformer units would be installed. Solar
- 10 photovoltaic energy generation equipment would be contained by an approximately 8-foot
- chain-link fence extending around the perimeter (approximately 6.9 miles). Access to solar
- 12 facility components would be provided via two new access points on the north side of
- 13 Bottemiller Lane.
- 14

15 The battery storage approved for Phase 2 would occupy up to 6 acres and would include

- 16 batteries and racks or containers, inverters, isolation transformers, and switchboards, an
- 17 approximately 20-foot warehouse-type building, medium-voltage and low-voltage electrical
- 18 systems, fire suppression, heating, ventilation, and air-conditioning systems, building auxiliary

19 electrical systems, and network/SCADA systems. Battery storage would include a cooling

- 20 system (more advanced systems required for Li-ion), which may include a separate chiller plant
- 21 located outside the battery racks with chillers, pumps, and heat exchangers. High-voltage (HV)
- 22 equipment would include a step-up transformer, HV circuit breaker, HV current transformers
- and voltage transformers, a packaged control building for the HV breaker and transformer
- equipment, HV towers, structures, and HV cabling. The battery storage area would be enclosed
- by approximately 2,140 feet of continuous chain-link perimeter fencing 8 feet in height, with
- two 16-foot-wide gates and one pedestrian, 4-foot-wide gate.
- 27

28 I.C. Description of Approved Facility Site Location

- 29
- 30 Site Boundary
- 31
- 32 The site boundary, as approved, encompasses approximately 47,056 acres and includes the
- 33 perimeter of the energy facility site and its related or supporting facilities, all temporary
- 34 laydown and staging areas and all approved corridors.¹ The site boundary is located on private
- land south of the City of Arlington, within Gilliam County, Oregon. As presented in Figure 1:
- 36 Facility Regional Location and Approved Site Boundary, the previously approved site boundary
- 37 includes both Phase 1 and Phase 2, inclusive of all area shaded yellow/orange and blue (see
- 38 figure legend).

¹ Pursuant to OAR 345-001-0010(55), the term "site boundary" means the perimeter of the site of an energy facility and its related or supporting facilities, all temporary laydown and staging areas and all corridors proposed by the applicant. The term "energy facility site" means all land upon which an energy facility is located or proposed to be located. The term "energy facility" means only the electric power generating plant while the term "facility," as defined in ORS 469.300 (14) means the energy facility together with any related or supporting facilities.

1 Figure 1: Facility Regional Location and Approved Site Boundary

2



3 4 5

Micrositing Corridor

6

7 Micrositing corridor means a continuous area of land within which construction of facility

8 components may occur subject to site specific conditions.² Council authorizes micrositing

9 corridors for energy facilities when a certificate holder has adequately studied the entire

10 corridor and demonstrated compliance with Council standards based on impacts of facility

- 11 components anywhere within the corridor.
- 12

For this facility, based on the extent of the certificate holder's analysis, as provided on the record of siting proceedings on the Final Order on the ASC through the Final Order on RFA4, the Council approved two distinct micrositing corridors – one for solar facility components and one for wind facility components. The approved micrositing corridor/area for wind facility components is depicted by areas shaded in beige and blue; the approved micrositing corridor for solar facility components is depicted by the area outlined in pink, as presented in Figure 2: *Approved Micrositing and Transmission Line Corridors.*

- 21
- 22

² OAR 345-001-0010(32)

1 Transmission Line Corridor

3 The facility includes a 14 mile 230 kV transmission line corridor, extending from the Phase 2

4 collector substation to the Phase 1 collector substations, and then from the Phase 1 collector

5 substation to Bonneville Power Administration's Slatt Substation, for interconnection to the

- 6 electric grid. The approved transmission line corridor, as specified in Condition 18 pursuant to
- 7 OAR 345-025-0010(5), is ½-mile in width and extends approximately 14 miles in length, as
- 8 presented by the yellow/orange line in Figure 2: Approved Micrositing and Transmission Line
- 9 Corridors.



1 Figure 2: Approved Micrositing and Transmission Line Corridors

2

3 I.D. Site Certificate Procedural History

4

The Council issued the *Final Order on the Application for Site Certificate for the Montague Wind Power Facility (Final Order on the Application)* on September 10, 2010, authorizing construction
and operation of a 404 MW wind energy generation facility, with up to 269 wind turbines and

related or supporting facilities. On December 28, 2012, the certificate holder submitted to the

9 Department its Request for Amendment 1 (RFA1), seeking approval to extend the construction

10 commencement and completion deadlines by two years, lower the minimum aboveground

11 blade-tip clearance for wind turbines, and transfer of the site certificate.³ The Council issued a

12 Final Order on Amendment 1 of the Site Certificate on June 21, 2013, approving the requested

- 13 changes.
- 14

³ Transfer of the site certificate to Portland General Electric was not completed and Montague Wind Power Facility LLC remains the site certificate holder.

- 1 On March 11, 2015, the certificate holder submitted to the Department its Request for
- 2 Amendment 2 (RFA2), seeking approval to extend the construction commencement and
- 3 completion deadlines by two years. The Council issued a Final Order on Amendment 2 of the
- 4 Site Certificate on December 4, 2015, approving the requested changes. On May 4, 2017, the
- 5 certificate holder submitted to the Department its Request for Amendment 3 (RFA3), seeking
- 6 approval to lower the minimum aboveground blade-tip clearance. The Council issued a *Final*
- 7 Order on Amendment 3 of the Site Certificate on July 12, 2017, approving the requested change.
- 8
- 9 On April 5, 2019, the certificate holder filed a complete Request for Amendment 4 (RFA4),
- 10 seeking approval to amend the site boundary and micrositing corridor; construct and operate
- battery storage and use or occupy up to 1,189 acres of agricultural-zoned lands for solar
- 12 photovoltaic equipment; and, change wind turbine layout and maximum dimension
- 13 specifications. The Council issued a *Final Order on Amendment 4 of the Site Certificate* on
- 14 September 6, 2019, approving the requested change.
- 15

16 <u>II. AMENDMENT PROCESS</u>17

- 18 II.A. Requested Amendment
- 19

20 Montague Wind Power Facility Site Certificate – Facility and Site Boundary Description

21

22 The amendment request seeks Council approval to amend the Montague Wind Power Facility

23 site certificate, based entirely on the fourth amended site certificate (September 2019), to

24 apply only to Phase 1 facility components currently in operation, within a redefined site

25 boundary encompassing approximately 29,607 acres. For the Montague Wind Power Facility

site certificate, the site boundary and micrositing corridor are the same.

- 27
- 28 The Montague Wind Power Facility site certificate would apply to the existing, operational 201

29 MW wind-energy generation facility including 56 wind turbines; an above- and belowground

- 30 34.5 kV electrical collection system; fiber optic communications network; SCADA system; one
- 31 collector substation (renamed from Phase 1 collector substation to Montague Wind collector
- 32 substation); aboveground, approximately 10 mile single-circuit 230-kV transmission line; four
- 33 permanent meteorological towers; access roads; public roadway modifications; and temporary
- 34 laydown areas and crane paths.
- Related or supporting facilities to be shared under Montague Wind Power, Montague Solar,
- 36 and Oregon Trail Solar Facility site certificates include the existing, operational Montague Wind
- 37 collector substation and the approximately 10-mile segment of 230 kV transmission line
- 38 extending from the Montague Wind collector substation to BPA's Slatt Substation.
- 39 The current Montague Wind Power Facility site certificate holder would be maintained as
- 40 Montague Wind Power Facility, LLC, a wholly owned subsidiary of Avangrid Renewables, LLC.
- 41

- New Site Certificates Facility and Site Boundary Descriptions 1
- 2 3

The amendment request seeks Council approval to further amend the Montague Wind Power

4 Facility site certificate, based on the fourth amended site certificate (September 2019), by allocating facility components approved in the Council's September 2019 Final Order on RFA4 5

6 (Phase 2) into two new site certificates, for facilities named Montague Solar Facility and Oregon

- 7 Trail Solar Facility.
- 8

Montague Solar Facility

9 10

The Montague Solar Facility site certificate would include 162 MW of previously approved solar 11 12 photovoltaic energy generation equipment within previously approved site boundary (1,763 13 acres) and solar micrositing area (1,189 acres). The amendment requests seeks approval to 14 expand the previously approved solar micrositing area by 307 acres, from 1,189 to 1,496 acres, 15 to allow additional flexibility in layout of previously approved solar facility components. Related or supporting facilities would include previously approved: above- and belowground 34.5 kV 16 17 electrical collection system; fiber optic communications network; SCADA system; two collector 18 substations (renamed from Phase 1 collector substation to Montague Wind collector substation and Phase 2 collector substation to Montague Solar collector substation); approximately 14 19 miles of aboveground single-circuit 230-kV transmission line; an O&M building (renamed from 20 21 Phase 1 O&M to Montague Solar O&M building); 100 MW of battery storage, access roads; 22 public roadway modifications; and temporary laydown areas and crane paths. Previously approved related or supporting facilities to be shared under Montague Wind Power,

23

24 25 Montague Solar, and Oregon Trail Solar Facility site certificates include the Montague Wind

collector substation and the approximately 10-mile segment of 230 kV transmission line 26

extending from the Montague Solar collector substation, to the Montague Wind collector 27

28 substation, and then to BPA's Slatt Substation. Previously approved related or supporting

29 facilities to be shared under the Montague Solar and Oregon Trail Solar Facility site certificates

include the Montague Solar collector substation, additional 3.6 miles of 230 kV transmission 30

line, 100 MW of battery storage, access roads and temporary laydown areas and crane paths. 31

32 In RFA5, the certificate holder identifies that the Montague Solar Facility would be owned and operated by a new LLC - Montague Solar, LLC – which is a wholly owned subsidiary of Avangrid 33 34 Renewables, LLC, the current certificate holder owner.

35

Oregon Trail Solar Facility

36 37

38 The Oregon Trail Solar Facility site certificate would include any combination of previously

39 approved wind and solar facility components not to exceed 41 MW, within previously approved

40 site boundary area (13,866 acres) and 12,638 acre wind micrositing corridor. In the amendment

- request, the certificate holder seeks approval for use of a new 1,228 acre solar micrositing area 41
- 42 within previously approved site boundary area. The facility would include up to 16 wind

- 1 turbines with a maximum blade tip height of 597 feet or solar photovoltaic energy generation
- 2 equipment occupying up to 1,228 acres, or any combination of wind and solar generation
- 3 equipment not to exceed 41 MW; an above- and belowground 34.5 kV electrical collection
- 4 system; fiber optic communications network; SCADA system; two collector substations
- 5 (renamed from Phase 1 collector substation to Montague Wind collector substation and Phase
- 6 2 collector substation to Montague Solar collector substation); approximately 14 miles of
- 7 aboveground single-circuit 230-kV transmission line; an O&M building (renamed from Phase 1
- 8 O&M to Montague Solar O&M building); 100 MW of battery storage; access roads; public
- 9 roadway modifications; and temporary laydown areas and crane paths.
- 10
- 11 Previously approved related or supporting facilities to be shared under Montague Wind Power,
- 12 Montague Solar, and Oregon Trail Solar Facility site certificates include the Montague Wind
- collector substation and the approximately 10-mile segment of 230 kV transmission line
- 14 extending from the Montague Wind collector substation to BPA's Slatt Substation. Related or
- 15 supporting facilities to be shared under the Montague Solar and Oregon Trail Solar Facility site
- 16 certificates include the Montague Solar collector substation, additional 3.6 miles of 230 kV
- 17 transmission line, 100 MW of battery storage, access roads and temporary laydown areas and
- 18 crane paths.
- 19 New related or supporting facilities proposed in RFA5 include a switching station that would
- 20 connect the Oregon Trail Solar Facility to the Montague Solar collector substation via a
- 21 previously approved overhead 34.5 kV collector line along Bottemiller Lane. The proposed
- switching station would include circuit-breakers, switches and other auxiliary equipment, and
- 23 be located within a 2-acre graveled, fenced area.
- In RFA5, the certificate holder identifies that the Oregon Trail Solar Facility would be owned and
- 25 operated by a new LLC Oregon Trail Solar, LLC, a wholly owned subsidiary of Avangrid
- 26 Renewables, LLC, the current certificate holder owner.
- 27
- 28 Proposed 230 kV Transmission Line Alternative Route Segment
- 29
- 30 The certificate holder seeks Council approval for use of an alternate 230 kV transmission line
- route segment for the segment that connects the two collector substations. The previously
- 32 approved route exits east out of the Montague Solar collector substation, crosses OR 19, and
- diagonals across fields to Old Tree Road where it may run on the north or the south side of the
- road to reach the Montague Wind collector substation, and then extends north to BPA's Slatt
- 35 Substation. The proposed alternate route segment would exit east out of the Montague Solar
- 36 collector substation to a 90-degree turning structure just east of OR 19. From there, it would
- 37 extend straight north along OR 19 (outside of the road right-of-way) until it reaches the corner
- of Old Tree Road where it would turn east towards the Montague Wind collector substation.
- 39 The approved and proposed alternative segment route are presented in Figure 3: *Proposed Site*
- 40 Boundary, Solar Micrositing Area and Alternate 230 kV Transmission Line Segment Route below.
- 41

- 1 Proposed Changes to Site Boundary and Solar Micrositing Corridor
- 2

3 The certificate holder seeks Council approval to reduce previously approved site boundary area

4 for the Montague Wind Power Facility site certificate from 47,056 to 42,946 acres and redefine

5 site boundaries within previously approved site boundary area for the amended and new site

certificates. For the amended Montague Wind Power Facility site certificate, the site boundary
would encompass 29,607 acres; for the new site certificates, Montague Solar Facility site

- 8 boundary would encompass 1,763 acres, and Oregon Trail Solar Facility site boundary would
- 9 encompass 13,866 acres.
- 10
- 11 The certificate holder seeks Council approval to expand the previously approved solar
- micrositing area for the Montague Wind Power Facility site certificate from 1,189 to 2,725 acres
- and redefine solar micrositing areas for the amended and new site certificates. For the
- amended Montague Wind Power Facility site certificate, the solar micrositing area would be
- removed as the facility would only include wind components. For the new site certificates, the
- 16 Montague Solar Facility solar micrositing area would include 1,496 acres (1,189 acres previously
- approved and proposed addition of 307 acres). The additional 307 acres is located directly
- 18 north of Bottemiller Land and the existing solar micrositing area. The certificate holder
- 19 represents that the solar micrositing area expansion would allow solar energy capture
- 20 optimization and provide additional flexibility in the layout of previously approved solar facility
- 21 components. In other words, the certificate holder requests approval to use or occupy more
- 22 area (acres) without increasing or changing the type or number of solar facility components
- 23 approved in the Final Order on RFA4 (see Section I.B. *Operational and Approved Facility*
- 24 *Components* of this order).
- 25
- In RFA5, the certificate holder seeks approval of an additional 1,228 acre solar micrositing area
 for the Oregon Trail Solar facility, within the previously approved site boundary, located directly
- 28 west of Weatherford Road and the existing solar micrositing area.
- 29
- 30 Exception Request for Goal 3, Agricultural Lands
- 31

The certificate holder requests Council approval to amend the Council's previous exception taken for the statewide policy embodied in Goal 3, *Agricultural Lands*, based on the use, occupation or cover of more than 12 acres of high-value farmland and more than 20 acres of

- 35 arable land from agricultural use through the expansion of the solar micrositing areas and
- 36 potential siting of solar photovoltaic energy generation equipment under the Montague Solar
- 37 Facility and Oregon Trail Solar Facility site certificates (non-compliance with GCZO Section
- 4.020(D)(11), and OAR 660-033-0130(38)(g) and (i).
- 39
- 40 Site Certificate Condition Deletions and Amendments
- 41
- 42 OAR 345-027-0060(1)(d) requires that the certificate holder identify the specific language of the 43 site certificate, including affected conditions, that the certificate holder proposes to change,

add, or delete through the amendment process. The certificate holder seeks approval to

administratively amend several conditions imposed in the Montague Wind Power Facility to

- align with the allocation of facility components across the amended and new site certificates.
- The certificate holder requests to substantively amend Condition 89(a) to remove a 200 foot
- setback for transmission lines to residential structures (site certificate Condition 89(a)). The
- draft amended and new site certificates, as presented in Attachment 1 of this order, are based
- entirely on the Council's August 2019 Fourth Amended Site Certificate, unless otherwise
- evaluated in this order.



1 Figure 3: Proposed Site Boundaries, Solar Micrositing Areas and Alternate 230 kV Transmission Line Segment Route

2

1 II.B. Amendment Review Process

2

3 Council rules describe the processes for transfers, Type A, Type B, and Type C review of a 4 request for amendment at OAR 345-027-0351. The Type A review is the standard or "default" site certificate amendment process for changes that require an amendment. Type C review 5 6 process is associated with construction-related changes. The key procedural difference 7 between the Type A and Type B review is that Type A review includes a public hearing on the 8 draft proposed order and an opportunity to request a contested case proceeding. The primary 9 timing differences between Type A and Type B review are in the maximum allowed timelines for the Department's determination of completeness of the preliminary request for 10 amendment, as well as the issuance of the draft proposed order, and proposed order. It is 11 12 important to note that Council rules authorize the Department to adjust the timelines for these 13 specific procedural requirements, if necessary. 14 15 On April 27, 2020, the certificate holder submitted a Type B review amendment determination request (Type B Review ADR) for Request for Amendment 5 (RFA5) with the preliminary RFA5, 16 17 requesting the Department's review and determination of whether, based on evaluation of the 18 OAR 345-027-0357(8) factors and pRFA5, the amendment request could be reviewed under the Type A review process. Pursuant to OAR 345-027-0357(6), on May 19, 2020, the Department 19 20 issued a written determination to the certificate holder stating that Type A review be 21 maintained for the modifications proposed in pRFA5. 22 23 OAR 345-027-0357(7) allows that, at the request of the certificate holder, the Department's 24 determination must be referred to the Council for concurrence, modification, or rejection, 25 which, in this instance, was not exercised. 26 Reviewing Agency Comments on preliminary Request for Amendment 5 27 28 29 The Department consulted with or received comments on RFA5 from the following reviewing agencies and Special Advisory Group: 30 31 32 Oregon Department of Fish and Wildlife Oregon Department of Land Conservation and Development 33 Oregon Department of Aviation 34 35 Gilliam County (Special Advisory Group) 36 Comments from these agencies and local governments are incorporated into the Department's 37 analysis of Council standards below, as applicable, and provided in Attachment B of this order. 38 39

- 40 For reference, a special advisory group is defined as "the governing body of any local
- 41 government within whose jurisdiction the facility is proposed to be located."⁴ On November 20,

⁴ ORS 469.480

- 2010, EFSC designated the Gilliam County Board of Commissioners as the Special Advisory
 Groups (SAG) for the facility.
- 3

7

10

11

12

4 The certificate holder submitted a complete RFA5 on May 29, 2020. On June 26, 2020 the

5 Department posted the complete RFA5 and an announcement on its website informing the

6 public that the complete RFA5 had been received and was available.

- 8 <u>As presented in Attachment B of this proposed order, the Department received comments on</u>
 9 <u>the RFA from the general public, certificate holder and the state, local and Tribal governments:</u>
 - Montague Wind Power Facility, LLC (certificate holder)
 - Joyce Weatherford (general public)
- 13 Chuck Little (general public)
- 14 Oregon Department of Aviation
- 15 Oregon Department of Fish and Wildlife
- 16 Oregon Department of State Lands
 - Oregon State Historic Preservation Office
 - Oregon Department of Transportation
 - Morrow County Planning Department
 - Confederated Tribes of the Warm Springs Indian Reservation
- 20 21

17

18

19

II.C. Council Review Process

22 23

On June 26, 2020, the Department issued the draft proposed order, and a notice of comment period on RFA5 and the draft proposed order (notice). The notice was distributed to all persons on the Council's general mailing list, to the special mailing list established for the facility, to an updated list of property owners supplied by the certificate holder, and to a list of reviewing agencies as defined in OAR 345-001-0010(52).

29

30 The comment period extend<u>eds</u> 27-days, and will-conclude<u>d on July 23, 2020,</u> at the close of

- 31 the public hearing scheduled to occur on July 23, 2020 atheld via Webinar, teleconference and
- 32 <u>in-person in the vicinity of the facility at</u> the Veteran's Memorial Hall in Condon, Oregon. In
- addition to accepting written comments during the comment period, the Council will also

34 accept<u>tedaccepted</u> oral testimony at the public hearing.⁵ As part of the public hearing, the

- 35 Department presented an overview of the Type A amendment review process and the changes
- 36 proposed in RFA5. Council reviewed the draft proposed order and comments received on the
- 37 record of the draft proposed during its July 24, 2020 meeting.
- 38
- 39 To raise an issue on the record of the draft proposed order, a person must raise the issue in a
- 40 written comment submitted after the date of the notice of the draft proposed order received
- 41 by the Department before the written comment deadline. The Council will not accept or

⁵ OAR 345-027-0067(6).

- 1 consider public comments on the RFA5 or on the draft proposed order after the written
- 2 comment deadline, listed above, that closes the record on the draft proposed order. Only those
- 3 persons, including the site certificate holder, who provided written comment by the written
- 4 comment deadline may seek judicial review as provided in ORS 469.403 and issues eligible for
- 5 judicial review are limited to the issues raised in that person's written comments.
- 7 On July 30, 2020, the Department issued a proposed order, After the Council considers all
- 8 comments received before the comment deadline for the draft proposed order, but not more
- 9 than 21 days after the comment deadline, the Department will issue a proposed order, taking
- 10 into consideration Council comments, any comments received "on the record of the public
- 11 hearing" (i.e., oral testimony provided at the public hearing and written comments received by
- 12 the Department after the date of the notice of the public hearing and before the close of the
- public hearing comment period), including any comments from reviewing agencies, special
 advisory groups, Tribal Governments and the certificate holder. Concurrent with the issuance of
- 15 the proposed order, the Department will-issued a Notice of Opportunity to Request a Contested
- 16 Case and a public notice of the proposed order.⁶
- 17

6

- 18 Only those persons who comment<u>ted</u> commented in person or in writing on the record of the
- 19 public hearing may request a contested case proceeding on their issues raised, unless the
- 20 Department did not follow the requirements of OAR 345-027-0367, or unless the action
- 21 recommended in the proposed order differs materially from the draft proposed order, including
- 22 any recommended conditions of approval, in which case the person may raise only new issues
- 23 within the jurisdiction of the Council that are related to such differences. <u>Additionally, to raise</u>
- 24 an issue in a contested case proceeding, the issue must be within Council jurisdiction, and the
- 25 person must have raised the issue on the record of the public hearing with "sufficient specificity
- 26 to afford the Council, the Department, and the certificate holder an adequate opportunity to
- 27 <u>respond to the issue."</u> If the Council finds that a request for contested case identifies one or
- 28 more properly raised issues that justify a contested case proceeding, the Council shall conduct a
- 29 contested case proceeding on the proposed order.
- 30
- All rules and supporting evidence that a person may wish to cite or include in a request for a
- 32 contested case proceeding must be included in comments provided on the record of the draft
- proposed order public hearing. See OAR 345-027-0367(3)(G) "The Council will not accept or
- 34 consider any further public comment on the request for amendment or on the draft proposed
- 35 order after the close of the public hearing." Additionally, to raise an issue in a contested case
- 36 proceeding, the issue must be within Council jurisdiction, and the person must have raised the
- issue on the record of the public hearing with "sufficient specificity to afford the Council, the
- 38 Department, and the certificate holder an adequate opportunity to respond to the issue."⁸
- 39

⁶ See OAR 345-027-0371

⁷ OAR 345-027-03071(7).

⁸ OAR 345-027-0371(5)

Montague Wind Power Facility - Proposed Order on Request for Amendment 5 July 30, 2020

- 1 To raise an issue with sufficient specificity, a person must have presented facts, on the record
- 2 of the public hearing, that support the person's position on the issue. The purpose of OAR 345-
- 3 027-0367 is to ensure that the public provides the Department and Council all comments,
- 4 including any documents or statutory or regulatory citations, that the public believes are
- 5 relevant to the site certificate analysis conducted by the Department and Council at a point in
- 6 the process where the Department, Council and certificate holder have "an adequate
- 7 opportunity to respond to the issue" (as stated in OAR 345-027-0367(5)(b)) *i.e.*, at a point
- 8 when the Department can address any relevant issues raised by those comments in the
- 9 proposed order. Allowing a person requesting a contested case to submit new or additional
- 10 documents, information or regulatory citations that might have influenced the Council's
- 11 comments regarding a draft proposed order and the Department's preparation of a proposed
- 12 order undermines that goal.
- 13

14 It is not the Department or Council's position that all information that would be submitted *in* a 15 contested case proceeding be submitted in comments provided on the record of the draft

- 16 proposed order. It is not the Department's intent, nor does the Department have the authority,
- to limit the level, type and amount of information that may be submitted in a contested case
- proceeding, if requested and granted by Council on a site certificate amendment. A contested
- 19 case proceeding is an evidentiary process overseen by an independent hearing officer, whom
- has the discretion to allow the introduction of new evidence into the record for the purpose of
- 21 evaluating contested case issues.
- 22

Following a contested case proceeding, if requested and granted; or if no contested case is
 requested or if requested but not granted, the Council shall adopt, modify, or reject the
 proposed order and will issue a final order approving or denying the site certificate amendment

- 26 based upon the applicable laws and Council standards required under OAR 345-027-0375(2)
- and in effect on the dates described in OAR 345-027-0375(3). The Council's final order
- approving or rejecting an amended site certificate is subject to judicial review by the Oregon
- 29 Supreme Court. A petition for judicial review must be filed with the Supreme Court within 60
- 30 days after the date of service of the Council's final order or within 30 days after the date of a
- 31 petition for rehearing is denied or deemed denied.⁹
- 32

33 II.D. Applicable Division 27 Rule Requirements

- 34
- A site certificate amendment is necessary under OAR 345-027-0350(4) because the certificate
- 36 holder requests to design, construct, and operate the facility in a manner different from the
- 37 description in the site certificate, and the proposed changes: (1) could result in a significant
- 38 adverse impact to a resource or interest protected by a Council standard that the Council has
- 39 not addressed in an earlier order; (2) could impair the certificate holder's ability to comply with
- 40 a site certificate condition; or (3) could require new conditions or modification to existing
- 41 conditions in the site certificate, or could meet more than one of these criteria.

⁹ ORS 469.403 and OAR 345-027-0371(12).

- 1 The Type A amendment review process (consisting of OARs 345-027-0359, -0360, -0363, -0365,
- 2 -0367, -0371 and -0375) is the default amendment review process and shall apply to the
- 3 Council's review of a request for amendment proposing a change described in OAR 345-027-
- 4 0350(2), (3), and (4).¹⁰
- 5

6 III. REVIEW OF THE REQUESTED AMENDMENT

7

8 Under ORS 469.310, the Council is charged with ensuring that the "siting, construction and 9 operation of energy facilities shall be accomplished in a manner consistent with protection of the public health and safety." ORS 469.401(2) further provides that the Council must include in 10 the amended site certificate "conditions for the protection of the public health and safety, for 11 12 the time for completion of construction, and to ensure compliance with the standards, statutes 13 and rules described in ORS 469.501 and ORS 469.503."¹¹ The Council implements this statutory 14 framework by adopting findings of fact, conclusions of law, and conditions of approval 15 concerning the amended facility's compliance with the Council's Standards for Siting Facilities at OAR 345, Divisions 22, 24, 26 and 27. 16 17 18 This draft-proposed order includes the Department's initial analysis of whether the proposed changes meet each applicable Council Standard (with mitigation and subject to compliance with 19 existing, recommended new, and recommended amended conditions, as applicable), based on 20 21 the information in the record and consideration of .- After the Council has reviewed the draft 22 proposed order and considered all comments received on the record of the public hearing, the 23 Department will issue its proposed order, which will include the Department's consideration of

any oral comments made at the public hearing, written comments received before the close of

- 25 the record of the public hearing, agency consultation, applicant_certificate holder_responses to
- 26 comments, and-any Council comments.
- 27 28

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7 III.A. Standards Potentially Impacted by Request for Amendment 5

- III.A.1 General Standard of Review: OAR 345-022-0000
- (1) To issue a site certificate for a proposed facility or to amend a site certificate, the Council
 shall determine that the preponderance of evidence on the record supports the following
 conclusions:
 - (a) The facility complies with the requirements of the Oregon Energy Facility Siting statutes, ORS 469.300 to ORS 469.570 and 469.590 to 469.619, and the standards adopted by the Council pursuant to ORS 469.501 or the overall public benefits of the facility outweigh the damage to the resources protected by the standards the facility does not meet as described in section (2);

¹⁰ OAR 345-027-0351(2).

¹¹ ORS 469.401(2).

- (b) Except as provided in OAR 345-022-0030 for land use compliance and except for 1 2 those statutes and rules for which the decision on compliance has been delegated 3 by the federal government to a state agency other than the Council, the facility 4 complies with all other Oregon statutes and administrative rules identified in the project order, as amended, as applicable to the issuance of a site certificate for 5 6 the proposed facility. If the Council finds that applicable Oregon statutes and 7 rules, other than those involving federally delegated programs, would impose 8 conflicting requirements, the Council shall resolve the conflict consistent with the 9 public interest. In resolving the conflict, the Council cannot waive any applicable 10 state statute. *** 11 12 (4) In making determinations regarding compliance with statutes, rules and ordinances normally administered by other agencies or compliance with 13 14 requirements of the Council statutes if other agencies have special expertise, the 15 Department of Energy shall consult such other agencies during the notice of intent, site certificate application and site certificate amendment processes. 16 17 Nothing in these rules is intended to interfere with the state's implementation of 18 programs delegated to it by the federal government. 19 **Findings of Fact** 20 21 22 OAR 345-022-0000 provides the Council's General Standard of Review and requires the Council
- to find that a preponderance of evidence on the record supports the conclusion that the
 proposed changes would comply with the requirements of EFSC statutes and the siting
 standards adopted by the Council and that the proposed changes would comply with all other
 Oregon statutes and administrative rules applicable to the issuance of proposed two new site
- 27 certificates.
- 28
- 29 OAR 345-022-0000(2) and (3) apply to RFAs where a certificate holder has shown that the proposed facility modifications cannot meet Council standards or has shown that there is no 30 reasonable way to meet the Council standards through mitigation or avoidance of the damage 31 32 to protected resources; and, for those instances, establish criteria for the Council to evaluate in making a balancing determination. In RFA5, the certificate holder has not represented that the 33 proposed amendments cannot meet an applicable Council standard. Therefore, OAR 345-022-34 35 0000(2) and (3) would not apply to this review. 36 37 Certificate Expiration (OAR 345-027-0313)
- 38
- ORS 469.370(12) requires the Council to "specify in the site certificate the date by which
- 40 construction of the facility must begin." ORS 469.401(2) requires that the site certificate contain
- a condition "for the time for completion of construction." Under OAR 345-025-0006(4), the
- 42 certificate holder must begin construction on the facility no later than the construction
- 43 beginning date specified by Council in the site certificate. "Construction" is defined in ORS

- 1 469.300(6) and OAR 345-010-0010(12) to mean "work performed on a site, excluding surveying,
- 2 exploration or other activities to define or characterize the site, the cost of which exceeds
- 3 \$250,000."
- 4
- 5 For the Montague Wind Power Facility site certificate, Conditions 24 and 25 establish the
- 6 construction commencement and completion deadlines for previously approved wind and solar
- 7 facility components. In RFA5, the certificate holder requests Council amend Conditions 24 and
- 8 25 for the proposed new Montague Wind Facility, Montague Solar Facility, and Oregon Trail
- 9 Solar Facility site certificates, as further described and evaluated below.
- 10

11 Conditions 24 and 25 of the existing site certificate establishes construction commencement

- and completion deadlines for Phase 1 (wind facility components) and Phase 2 (wind and solar
- 13 facility components). Phase 1 construction is complete and commenced commercial operation
- in October 2019; therefore, Conditions 24 and 25 have been satisfied for Phase 1. Condition 24
- and 25 Phase 2 requirements apply to facility components to be governed by the proposed new
- 16 Montague Solar Facility and Oregon Trail Solar Facility site certificates. The certificate holder
- 17 requests Council amend Conditions 24 and 25 for the Montague Wind Facility site certificate
- to remove reference to Phase 1 and 2, referring only to the facility, and remove reference to
- 19 deadlines established for Phase 2.
- 20

The Department considers the requested condition amendments to be administrative in nature - removing reference to deadlines that would no longer apply based on the allocation of facility components approved in the Final Order on RFA4 (Phase 2) to proposed new site certificates. Therefore, the Department recommends Council amend the conditions, consistent with the

- Therefore, the Department recommends Council amend the conditions, consistent with the certificate holders' request, as follows:
- 26

27 Montague Wind Power Facility

28

Recommended Amended Condition 24: The certificate holder shall: <u>b</u>Begin construction of
 Phase 1 of the facility by September 14, 2017. Under OAR 345-015-0085(9), a site certificate
 is effective upon execution by the Council Chair and the applicant. The Council may grant an
 extension of the deadline to begin construction in accordance with OAR 345-027-0385 or
 any successor rule in effect at the time the request for extension is submitted. [ASC; AMD2;
 AMD4; AMD5]

- 35 i. Begin construction of Phase 2 of the facility by August 30, 2022. The Council may grant
 36 an extension of the deadline to begin construction in accordance with OAR 345-027 37 0385 or any successor rule in effect at the time the request for extension is submitted.
 38 [AMD4]
- 39
- 40
- 41 **Recommended Amended Condition 25**: The certificate holder shall:
- 42 <u>c</u>Complete construction of Phase 1 of the facility by September 14, 2020. Construction is
- 43 complete when: (1) the facility is substantially complete as defined by the certificate

holder's construction contract documents, (2) acceptance testing has been satisfactorily 1 2 completed and (3) the energy facility is ready to begin continuous operation consistent with 3 the site certificate. The certificate holder shall promptly notify the Department of the date 4 of completion of construction. The Council may grant an extension of the deadline for 5 completing construction in accordance with OAR 345-027-0385 or any successor rule in effect at the time the request for extension is submitted. [ASC; AMD2; AMD4; AMD5] 6 7 Complete construction of Phase 2 of the facility by [3 years of from the date of construction commencement]. Construction is complete when: (1) the facility is substantially complete 8 as defined by the certificate holder's construction contract documents, (2) acceptance 9 testing has been satisfactorily completed and (3) the energy facility is ready to begin 10 continuous operation consistent with the site certificate. The certificate holder shall 11 promptly notify the Department of the date of completion of construction. The Council may 12 13 grant an extension of the deadline for completing construction in accordance with OAR 345-027-0385 or any successor rule in effect at the time the request for extension is submitted. 14 15 [AMD4] 16 17 As described above, Conditions 24 and 25 of the existing site certificate establishes construction 18 commencement and completion deadlines for Phase 1 (wind facility components) and Phase 2 (wind and solar facility components). The certificate holder requests Council amend Conditions 19

20 24 and 25 for the Montague Solar Facility and Oregon Trail Solar Facility site certificates to
 21 remove reference to Phase 1 and 2, referring only to the facility, and remove reference to

22 deadlines established for Phase 1 facility components, would be covered under the Montague

23 Wind Facility site certificate. The Department considers the requested condition amendments

to be administrative in nature – removing reference to deadlines that would no longer apply

25 based on the allocation of facility components approved in the Final Order on RFA4 (Phase 2) to

26 proposed new site certificates. Therefore, the Department recommends Council amend the

27 conditions, consistent with the certificate holders' request, as follows:

28

29 Montague Solar Facility and Oregon Trail Solar Facility Site Certificates

30

Recommended Amended Condition 24: The certificate holder shall: Begin construction of 31 Phase 1 of the facility by September 14, 2017. Under OAR 345-015-0085(9), a site certificate 32 is effective upon execution by the Council Chair and the applicant. The Council may grant an 33 extension of the deadline to begin construction in accordance with OAR 345-027-0385 or 34 any successor rule in effect at the time the request for extension is submitted. [ASC; AMD2; 35 36 AMD4] bBegin construction of Phase 2 of the facility by August 30, 2022. The Council may grant an 37 extension of the deadline to begin construction in accordance with OAR 345-027-0385 or 38 any successor rule in effect at the time the request for extension is submitted. [AMD4; 39 40 AMD51

41 **Recommended Amended Condition 25**: The certificate holder shall Complete_construction

42 of Phase 1 of the facility by September 14, 2020. Construction is complete when: (1) the

43 facility is substantially complete as defined by the certificate holder's construction contract

- 1 documents, (2) acceptance testing has been satisfactorily completed and (3) the energy
- 2 facility is ready to begin continuous operation consistent with the site certificate. The
- 3 certificate holder shall promptly notify the Department of the date of completion of
- 4 construction. The Council may grant an extension of the deadline for completing
- construction in accordance with OAR 345-027-0385 or any successor rule in effect at the
 time the request for extension is submitted. [ASC; AMD2; AMD4]
- 7 Complete construction of Phase 2 of the facility by [3 years of from the date of construction
- 8 commencement. Construction is complete when: (1) the facility is substantially complete
- 9 as defined by the certificate holder's construction contract documents, (2) acceptance
- 10 testing has been satisfactorily completed and (3) the energy facility is ready to begin
- 11 continuous operation consistent with the site certificate. The certificate holder shall
- promptly notify the Department of the date of completion of construction. The Council may grant an extension of the deadline for completing construction in accordance with OAR 345-
- grant an extension of the deadline for completing construction in accordance with OAR 345 027-0385 or any successor rule in effect at the time the request for extension is submitted.
- 14 027-0385 of any successor rule in effect at the time the request for extension is submitted.
 15 [AMD4; AMD5]
- 16

17 Council previously imposed Condition 26 requiring that, prior to construction, the certificate

- 18 holder notify the Department confirming whether wind turbines previously approved for
- 19 construction and operation under the Leaning Juniper II facility site certificate would instead be
- 20 constructed and operated under the Montague Wind Power Facility site certificate. On
- 21 September 17, 2010, the certificate holder satisfied this condition, confirming that the
- 22 identified wind turbines would be constructed and operated under the Montague Wind Power
- 23 Facility site certificate. Because the condition was previously satisfied and no longer provides an
- 24 applicable requirement, the certificate holder requests, and the Department agrees, that
- 25 Council remove the condition from each of the proposed amended and new site certificates, as
- 26 follows:
- 27

28 Montague Wind Facility, Montague Solar Facility and Oregon Trail Solar Facility

- 29
- 30 **Recommended Deleted Condition 26**: Before beginning construction of the facility, the
- 31 certificate holder shall notify the Department whether the turbines identified as H1, H2, H3,
- 32 H4, L8, L9, L10, L11 and L12 on Figure C-3a of the site certificate application will be built as
- 33 part of the Montague Wind Power Facility or whether the turbines will be built as part of
- 34 the Leaning Juniper II Wind Power Facility.
- 35

Mandatory and Site-Specific Conditions in Site Certificates [OAR 345-025-0006 and OAR 345-025-0010]

3

4 OAR 345-025-0010 establishes "site specific" conditions that the Council may include in site 5 certificate to address issues specific to certain facility types or proposed features of facilities.¹² 6 Pursuant to site specific conditions under OAR 345-025-0010(5), the Council must specify an 7 approved corridor for construction and operation of transmission lines. Council previously 8 imposed Condition 18 in the site certificate, consistent with this requirement. The certificate 9 holder requests that the corridor description be redefined in the amended Montague Wind Power Facility site certificate and new Montague Solar Facility and Oregon Trail Solar site 10 certificates to be consistent with the segment initiation and termination point for each facility. 11 12 The certificate holder also requests removal of reference to the length of the transmission line 13 segment applicable to each facility, which based on the intent of OAR 345-025-0010(5) to 14 "specify" an approved corridor, the Department disagrees. Therefore, the Department 15 recommends Council amend Condition 18 as follows: 16 17 Montague Wind Facility 18 Recommended Amended Condition 18: OAR 345-025-0010(5): The certificate holder is 19 authorized to construct a 230-kV transmission line anywhere within the approved corridor, 20 21 subject to the conditions of the site certificate. The approved corridor is ½-mile in width and extends approximately 14 10 miles from the Phase 2 collector substation to the Phase 22 23 ¹Wind collector substation to BPA's Slatt Substation as presented in Figure 1 of the site certificate. 24 25 [OAR 345-025-0010(5); ASC; AMD4; AMD5] 26 27 Montague Solar Facility and Oregon Trail Facility 28 29 Recommended Amended Condition 18: OAR 345-025-0010(5): The certificate holder is authorized to construct a 230-kV transmission line anywhere within the approved corridor, 30 subject to the conditions of the site certificate. The approved corridor is ½-mile in width and 31 32 extends approximately 14 miles from the Phase 2 Montague Solar collector substation to the Phase 1 Montague Wind collector substation to BPA's Slatt Substation as presented in 33 Figure 1 of the site certificate. 34 35 [OAR 345-025-0010(5); ASC; AMD4; AMD5] 36 37 OAR 345-025-0006 lists certain mandatory conditions that the Council must adopt in every site

- certificate. Mandatory conditions, pursuant to OAR 345-025-0006, were imposed as conditions
 within the approved site certificate. Of relevance to this amendment request, Council
- 40 previously imposed Condition 27, mirroring OAR 345-025-0006(3)(a), requiring that the

¹² Site-Specific Conditions at OAR 345-025-0010(1)-(3), and (6)-(7) do not apply to the proposed facility based on facility energy source/type (wind/solar photovoltaic power generation facility).

1 certificate holder design, construct, operate and retire the facility substantially as described in

2 the site certificate. In RFA5, the certificate holder requests Council amend Condition 27 to be

consistent with facility components to be covered under each proposed new site certificate, as
presented below.

5

7

6 Montague Wind Facility

Recommended Amended Condition 27: The certificate holder shall construct a facility
 substantially as described in the site certificate and may select turbines of any type, subject
 to the following restrictions and compliance with all other site certificate conditions. Before
 beginning construction, the certificate holder shall provide to the Department a description
 of the turbine types selected for the facility demonstrating compliance with this condition.
 For Phase 1 facility components:

- 14 (a) The total number of turbines must not exceed 81 56 turbines.
- (b) The turbine hub height must not exceed 100 meters and the maximum blade tip height must not exceed 150 meters.
 - (c) The minimum blade tip clearance must be 14 meters above ground. [Amendment #3]
 - i. _For Phase 2 facility components:
 - (a) Components may include any combination of wind and solar energy generation equipment, up to 81 wind turbines or the maximum layout (including number and size) of solar array components substantially as described in RFA4.
 - (b) The maximum blade tip height must not exceed 597 feet (182 meters). The minimum aboveground blade tip clearance must be 46 feet (14 meters).
- 24 [Final Order on ASC; AMD3; AMD4<u>; AMD5</u>]
- 25

17

18

19

20 21

22 23

26 Montague Solar Facility

27 28 **Recommended Amended Condition 27**: The certificate holder shall construct a facility substantially as described in the site certificate and may select turbines of any type, subject 29 to the following restrictions and compliance with all other site certificate conditions. Before 30 beginning construction, the certificate holder shall provide to the Department a description 31 of the turbine types selected for the facility demonstrating compliance with this condition. 32 i. For Phase 1 facility components: 33 (a) The total number of turbines must not exceed 81 turbines. 34 35 (b) The turbine hub height must not exceed 100 meters and the maximum blade tip 36 height must not exceed 150 meters. 37 (c) The minimum blade tip clearance must be 14 meters above ground. [Amendment #3] ii. For Phase 2 facility components: 38 (a) Components may include any combination of wind and solar energy generation 39 equipment, up to 81 wind turbines or the maximum layout (including number and 40 size) of solar array components substantially as described in RFA4. 41 The maximum blade tip height must not exceed 597 feet (182 meters). The minimum 42 aboveground blade tip clearance must be 46 feet (14 meters). solar array components using 43

1	or occupying up to 1,496 acres substantially as approved in Final Order on RFA4 (August
2	2019) and Final Order on RFA5 (September 2020).
3	[Final Order on ASC; AMD3; AMD4 <u>; AMD5]</u>
4	
5	Oregon Trail Solar Facility
6	
7	Recommended Amended Condition 27: The certificate holder shall construct a facility
8 9	substantially as described in the site certificate and may select turbines of any type, subject to the following restrictions and compliance with all other site certificate conditions. Before
10	beginning construction, the certificate holder shall provide to the Department a description
11	of the turbine types selected for the facility demonstrating compliance with this condition, i.
12	i. For Phase 1 facility components:
13	(a) The total number of turbines must not exceed 81 turbines.
14	(b) The turbine hub height must not exceed 100 meters and the maximum blade tip
15	height must not exceed 150 meters.
16	(c) The minimum blade tip clearance must be 14 meters above ground.
17	[Amendment #3]
18	ii. For Phase 2 facility components:
19	(a) Components may include any combination of wind and solar energy generation
20	equipment, up to <u>16</u> 81 wind turbines or the maximum layout (including number
21	and size) of solar array components <u>using or occupying up to 1,228 acres</u>
22	substantially as described in RFA4 and approved in the Final Order on RFA4
23	<u>(August 2019).</u>
24	(b) The maximum <u>wind turbine</u> blade tip height must not exceed 597 feet (182
25	meters). The minimum aboveground blade tip clearance must be 46 feet (14
26	meters).
27	[Final Order on ASC; AMD3; AMD4 <u>; AMD5]</u>
28	
29	Construction and Operation Rules for Facilities [OAR Chapter 345, Division 26]
30	
31	The Council has also adopted rules at OAR Chapter 345, Division 26 to ensure that construction,
32	operation, and retirement of facilities are accomplished in a manner consistent with the
33	protection of public health, safety, and welfare and protection of the environment. These rules
34	include requirements for compliance plans, inspections, reporting and notification of incidents.
35	The certificate holder must construct the facility substantially as described in the site certificate
36	and the certificate holder must construct, operate, and retire the facility in accordance with all
3/	applicable rules adopted by the Council in OAR Chapter 345, Division 26.
38	Conclusions of Low
39 40	
40 41	Based on the recommended findings of fact and conclusions of law, and subject to compliance

42 with existing and recommended amended site certificate conditions, the Department

recommends that the Council find that the facility, with proposed RFA5 modifications, would
 satisfy the requirements of OAR 345-022-0000.

III.A.2 Organizational Expertise: OAR 345-022-0010

(1) To issue a site certificate, the Council must find that the applicant has the organizational expertise to construct, operate and retire the proposed facility in compliance with Council standards and conditions of the site certificate. To conclude that the applicant has this expertise, the Council must find that the applicant has demonstrated the ability to design, construct and operate the proposed facility in compliance with site certificate conditions and in a manner that protects public health and safety and has demonstrated the ability to restore the site to a useful, non-hazardous condition. The Council may consider the applicant's experience, the applicant's access to technical expertise and the applicant's past performance in constructing, operating and retiring other facilities, including, but not limited to, the number and severity of regulatory citations issued to the applicant.

- (2) The Council may base its findings under section (1) on a rebuttable presumption that an applicant has organizational, managerial and technical expertise, if the certificate holder has an ISO 9000 or ISO 14000 certified program and proposes to design, construct and operate the facility according to that program.
- (3) If the applicant does not itself obtain a state or local government permit or approval for
 which the Council would ordinarily determine compliance but instead relies on a permit
 or approval issued to a third party, the Council, to issue a site certificate, must find that
 the third party has, or has a reasonable likelihood of obtaining, the necessary permit or
 approval, and that the applicant has, or has a reasonable likelihood of entering into, a
 contractual or other arrangement with the third party for access to the resource or
 service secured by that permit or approval.
- (4) If the applicant relies on a permit or approval issued to a third party and the third party
 does not have the necessary permit or approval at the time the Council issues the site
 certificate, the Council may issue the site certificate subject to the condition that the
 applicant shall not commence construction or operation as appropriate until the third
 party has obtained the necessary permit or approval and the applicant has a contract or
 other arrangement for access to the resource or service secured by that permit or
 approval.

Findings of Fact 1

2

3 Subsections (1) and (2) of the Council's Organizational Expertise standard require that the 4 certificate holder demonstrate its ability to design, construct and operate the facility, with

5 proposed RFA5 modifications, in compliance with Council standards and all site certificate

6 conditions, and in a manner that protects public health and safety, as well as its ability to

7 restore the site to a useful, non-hazardous condition. The Council may consider the certificate

8 holder's experience and past performance in constructing, operating and retiring other facilities

9 in determining compliance with the Council's Organizational Expertise standard. Subsections (3)

- and (4) address third party permits. 10
- 11

12 The changes proposed in RFA5 that could impact Council's previous findings of compliance

13 under the Organizational Expertise standard include the request for new certificate holders for

14 the new site certificates proposed for the Montague Solar and Oregon Trail Solar Facilities;

15 shared use of previously approved related or supporting facilities; impacts to previous

decommissioning estimate and evaluation related to the proposed new switching station; and, 16

17 removal of conditions imposed to reduce public health and safety risk from battery component

18 storage, transport and disposal (due to removal of battery storage as a related or supporting

facility under the amended Montague Wind Power Facility site certificate). 19

20

21 Request for New Certificate Holders

22

23 In RFA5, the certificate holder requests approval to transfer ownership of the Montague Wind 24 Power Facility site certificate based on the site certificate split, resulting in new certificate 25 holders for the Montague Solar Facility and Oregon Trail Solar Facility. The current certificate holder is Montague Wind Power Facility, LLC, a wholly-owned subsidiary of Avangrid 26 Renewables, LLC. Avangrid Renewables, LLC is the certificate holder owner, and would be 27 28 maintained as the certificate holder owner for the new site certificates. Therefore, as described 29 above, because the owner of the new certificate holders, or the owner of the entity to be in control or possession of the facility would remain Avangrid Renewables, LLC – the existing 30 certificate holder owner - in accordance with the intent of the language under OAR 345-025-31 32 0006(15), the Department recommends Council find that changes in certificate holder, when the certificate holder is a sole purpose limited liability company reliant upon its parent 33 company, and the parent company is the owner of the certificate holder, not to trigger the OAR 34 35 345-027-0400 transfer process. 36

37 In the Final Order on the ASC, the Council found Avangrid, or its wholly owned subsidiaries, to

have the organizational expertise to construct, operate and retire energy facilities.¹³ The Council 38

found that the certificate holder had specific qualified and experienced internal personnel for 39

management and design, construction and operation of the facility as well as would hire only 40 qualified contractors with direct experience in wind energy facility construction to design and

⁴¹

¹³ Final Order on the Application at 14-15.

- 1 build the proposed facility.¹⁴ Therefore, the Council found that the certificate holder satisfied
- 2 the Council's Organizational Expertise Standard. The Council's previous findings and conclusions
- 3 are incorporated by this reference.
- 4
- 5 The new LLCs proposed as certificate holders of the Montague Solar and Oregon Trail Solar 6 Facilities would not affect the current certificate holder's organizational expertise, or impact 7 the Council's previous findings. To support Council's review of the new LLCs, articles of 8 organization and proof of registration to do business were provided in RFA5 Attachment 5. In 9 addition, Avangrid Renewables, LLC's in-house legal Counsel, Jeffrey Durocher, provided 10 confirmation that the new LLCs have legal authority to construct and operate energy facility components to be included in the new site certificates without violating articles of 11 12 incorporation or other similar agreement (RFA5 Attachment 6). Based on review of the articles 13 of organization and legal opinion provided in RFA Attachment 5 and 6, the Department 14 recommends Council approve the new LLCs as certificate holders for the Montague Solar and 15 Oregon Trail Solar Facility site certificates. 16 17 Third-Party Permits 18 19 In RFA5, the certificate holder represents that previously approved related or supporting 20 facilities, including collector substations, O&M building, access road, temporary staging areas, 21 battery storage system and 230 kV transmission line would be shared between each or by two 22 site certificates. The Department recommends Council evaluate facility components shared 23 between site certificate/certificate holders to be substantially similar to a third-party resource. 24 25 In RFA5, the certificate holder does not address the mechanism or agreement that would be executed or implemented between LLCs for the sharing of the above-referenced facility 26 27 components. Because the new LLCs (new certificate holders) are wholly owned indirect subsidiaries of Avangrid Renewables, which acts as the certificate holder owner and entity with 28 29 control of each certificate holder, the Department recommends that, in accordance with OAR 345-022-0010(3), the Council find that the certificate holders' have a reasonable likelihood of 30 entering into a contractual or other arrangement for access to the shared facilities. 31 32 Nonetheless, the Department recommends Council adopt the following condition, which 33 34 requires that evidence be provided to the Department demonstrating that -ensures that each 35 certificate holder has legal rights to use and access to the shared facility resources is secured 36 prior to sharing or of operation of shared facilities, within the amended and new site 37 certificates. Evidence of an executed agreement or similar conveyance is consistent with OAR 345-022-0010(3)), which requires Council to find that the certificate holder has a reasonable 38 likelihood of entering into a contractual agreement with a third-party for access to a resource 39 necessary for facility operation. Evidence of an executed agreement or similar conveyance 40 provides the Department and Council the ability to understand assignment of responsibilities, 41

¹⁴ Id.

agreement duration and terms, including termination, amendment and severability, and verify access to the shared resources.¹⁵

- 3
- 4 The Department also recommends Council impose requirements in the same condition, based
- 5 on shared facilities, to ensure full coverage of the site restoration compliance obligation, as
- 6 required per Sub(1) of the standard, which obligates each certificate holder to notify the
- 7 Department, and evaluate through an amendment determination request (OAR 345-027-0357)
- 8 or request for amendment (OAR 345-027-0360), any substantial changes to shared related or
- 9 supporting facilities or of termination or ceasing of facility operations. In the proposed order,
- 10 the Department recommends the condition be modified to clarify that the requirement for
- 11 <u>submittal of an amendment determination request, by each certificate holder, if any of the</u>
- 12 shared related or supporting facilities are substantially modified could be satisfied through a
- 13 <u>single amendment determination request, if authorized (signed) by each certificate holder.</u>
- 14 Recommended changes to Condition 118 from the draft proposed order to the proposed order
- 15 <u>are presented in redline format below:16</u>
- 16
- 17 Montague Wind Power Facility
- 18

Recommended Condition 118: The site certificate authorizes shared use of related or
 supporting facilities including the Montague Wind collector substation, 230 kV transmission
 line, access roads, and temporary staging areas under the site certificates issued for the
 Montague Wind Facility, Montague Solar Facility and Oregon Trail Solar Facility.

- a. Within 30 days of shared use, the certificate holder must provide evidence to the
 Department that the certificate holders have an executed agreement for shared use of
 facilities.
- b. If certificate holders of <u>the Montague Wind Power Facility</u>, Montague Solar <u>Facility</u> or
 Oregon Trail Solar Facility propose to substantially modify any of the shared facilities
 listed in sub(a) of this condition, each certificate holder shall submit an amendment
- 29 determination request or request for site certificate amendment to obtain a
- determination from the Department on whether a site certificate amendment is
 required or to process an amendment for both site certificates. If certificate holders opt
- 32 to submit an amendment determination request, the requirement may be satisfied
- 33 through submittal of a single amendment determination request with authorization (or
- 34 <u>signature) provided from all three certificate holders.</u>

¹⁵ On the record of the draft proposed order, certificate holder requests that sub(b) of the condition be modified to require that the certificate holder submit to the Department a figure depicting the location of shared facilities, rather than evidence of an agreement. While the Department does not argue the value of a figure demonstrating the final location of facility components and shared facility components, it would not serve the purpose intended by recommended Condition 118(b), which is to provide evidence of an executed agreement to verify long-term access to shared "third-party" resources necessary for facility operation. MWPAMD5 DPO Comments Certificate Holder Hutchinson. 2020-07-23.

¹⁶ MWPAMD DPO Comments Certificate Holder Hutchinson 2020-07-23.

- c. Prior to facility decommissioning or if facility operations cease, each certificate holder
 shall submit an amendment determination request or request for site certificate
 amendment to document continued ownership and full responsibility, including
 coverage of full decommissioning amount of the shared facilities in the bond or letter of
 credit pursuant to Condition 32, for the operational facility, if facilities are
 decommissioned at different times.
- 7 8

9

Montague Solar and Oregon Trail Solar Facilities

Recommended Condition 118: The site certificate authorizes shared use of related or 10 supporting facilities including the Montague Solar collector substation, Montague Solar 11 12 O&M building, battery storage system, 230 kV transmission line, access roads, and 13 temporary staging areas under the site certificates issued for the Montague Solar Facility 14 and Oregon Trail Solar Facility. The site certificate authorizes shared use of related or 15 supporting facilities including the Montague Wind collector substation under the site certificates issued for the Montague Wind Facility, Montague Solar Facility and Oregon Trail 16 17 Solar Facility.

- a. Within 30 days of shared use, the certificate holder must provide evidence to the
 Department that the certificate holders have an executed agreement for shared use of
 facilities.
- 21 b. If certificate holders of Montague Solar Facility or Oregon Trail Solar Facility propose to substantially modify any of the shared facilities listed in sub(a) of this condition, each 22 23 certificate holder shall submit an amendment determination request or request for site 24 certificate amendment to obtain a determination from the Department on whether a 25 site certificate amendment is required or to process an amendment for both site 26 certificates. If certificate holders opt to submit an amendment determination request, the requirement may be satisfied through submittal of a single amendment 27 determination request with authorization (or signature) provided from each certificate 28
- 28 <u>determination request with authorization (or signature) provided from ea</u> 29 <u>holder.</u>
- c. Prior to facility decommissioning or if facility operations cease, each certificate holder
 shall submit an amendment determination request or request for site certificate
 amendment to document continued ownership and full responsibility, including
 coverage of full decommissioning amount of the shared facilities in the bond or letter of
 credit pursuant to Condition 32, for the operational facility, if facilities are
 decommissioned at different times.
- 36

Based on compliance with the above-recommended condition, the Department recommends
Council find that the existing and proposed certificate holders have a reasonably likelihood of
obtaining access to the shared facilities, of entering into a contract to obtain access to the
shared facilities, and of ensuring site certificate responsibility of the shared facilities for the

- 41 duration of facility operation.
- 42

1 Public Health and Safety

2

3 Council previously imposed Conditions 116 and 117 establishing requirements for storage, 4 transport and disposal of battery storage equipment and related waste. In RFA5, the certificate 5 holder proposes to remove the battery storage as a related or supporting facility under the Montague Wind Power Facility site certificate. The previously approved battery storage system 6 7 would be included, as a shared related or supporting facility, under the Montague Solar Facility and Oregon Trail Solar Facility site certificates, where Conditions 116 and 117 would be 8 9 maintained. Based on the certificate holder's proposed reallocation of related or supporting facilities under the new site certificates, the Department recommends Council delete 10 Conditions 116 and 117 from the amended Montague Wind Power Facility site certificate, as 11 12 follows: 13 14 Montague Wind Power Facility 15 Recommended Deleted Condition 116: The certificate holder shall ensure its third-party 16 contractor transports and disposes of battery and battery waste in compliance with all 17 18 applicable regulations and manufacturer recommendations related to the transport of hazardous battery materials. 19 Prior to construction, the certificate holder shall provide a description to the Department of 20 applicable regulations and manufacturer recommendations applicable to the transport and 21 disposal of batteries and battery related waste. 22 23 During construction and operation, the certificate holder shall report to the Department 24 any potential compliance issue or cited violations of its third-party contractor for the requirements identified in sub(a) of this condition. 25 [AMD4] 26 27 Recommended Deleted Condition 117: During facility operation, the certificate holder shall 28 conduct monthly inspections of the battery storage systems, in accordance with 29 manufacturer specifications. The certificate holder shall maintain documentation of 30 inspections, including any corrective actions, and shall make available for review upon 31 request by the Department. [AMD4] 32 33 34 Ability to Restore the Site to a Useful, Non-Hazardous Condition 35 36 The facility, with proposed RFA5 modifications, includes a new switching station. The certificate holder identifies tasks and actions for decommissioning of the switching station, including 37

removal of the switching station components; removal, regrading, and reseeding of the surrounding graveled area; removal and recycling of the site perimeter fence; removal of

surrounding graveled area; removal and recycling of the site perimeter fence; removal of
 demolition debris to a licensed landfill; and recycling of steel, concrete, and other components

41 to the extent possible. These tasks and actions are consistent with those identified for

- 42 previously approved facility components, including collector substations and O&M building.
- 43 Based on similarities in components of a switching station compared to previously approved
- 1 collector substations and O&M buildings, the Department recommends Council find that the
- 2 new switching station would not impact the certificate holder's ability to restore the site to a
- 3 useful, non-hazardous condition, as further evaluated in Section III.A,5 Retirement and Financial
- 4 Assurance of this order, in which the Department recommends that Council find that the
- 5 certificate holder would continue to be able to comply with the Retirement and Financial
- 6 Assurance standard.
- 7

8 Conclusions of Law

9

10 Based on the evidence in the record, and subject to compliance with the existing and

- 11 recommended new and deleted conditions, the Department recommends that the Council find
- 12 that the certificate holder would continue to satisfy the requirements of the Council's
- 13 Organizational Expertise standard.
- 14
- 15 16

17

18

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III.A.3 Soil Protection: OAR 345-022-0022

- To issue a site certificate, the Council must find that the design, construction and operation of the facility, taking into account mitigation, are not likely to result in a significant adverse impact to soils including, but not limited to, erosion and chemical factors such as salt deposition from cooling towers, land application of liquid effluent, and chemical spills.
- 21 22

23 Findings of Fact

24

25 The Soil Protection standard requires the Council to find that, taking into account mitigation,

- the design, construction and operation of a facility or proposed amendment would not be likely
 to result in a significant adverse impact to soils.
- 28

The analysis area for potential impacts to soils, as defined in the Project Order, is the area

- 30 within the site boundary. Land uses within the analysis area include private agriculture
- 31 generally used for dryland wheat production or rangeland.
- 32

33 Potential Significant Adverse Impacts to Soil

34

In RFA5, the certificate holder proposes to expand the solar micrositing area from 1,189 to

2,275 acres. The additional 1,536 acres would include soil units consisting primarily of Ritzville

37 silt loam with slopes ranging from zero to 12 percent, and a small area of Willis silt loam with 5

- 38 to 12 percent slopes. Potential impacts from construction and operation of previously approved
- 39 solar facility components within the proposed expanded area would include erosion. Council
- 40 previously imposed Condition 80, which requires that the certificate holder comply with erosion
- 41 control measures required by the Facility's NPDES 1200-C construction permit. Based on
- 42 compliance with the existing condition, the Department recommends Council continue to find
- 43 that the facility, with proposed RFA5 modifications, would minimize soil erosion impacts.

- In Condition 80, Council previously imposed a subpart, consistent with the version of the Land 1
- Conservation and Development Commissions' (LCDC) OAR 660-033-0130(38)(f)(B) in place in 2
- 3 September 2019, which required solar facilities on arable land to develop and implement a
- 4 topsoil management plan. LCDC adopted and implemented a rule change, whereby the topsoil
- management requirement was removed. Therefore, the certificate holder requests that Council 5
- 6 amend Condition 80 in the proposed amended and new site certificates to align with the rule
- 7 change, as presented below:
- 8
- 9

Montague Wind Power, Montague Solar and Oregon Trail Solar Facilities

10

Recommended Amended Condition 80: 11

- The certificate holder shall conduct all construction work in compliance with an Erosion 12 i. and Sediment Control Plan (ESCP) satisfactory to the Oregon Department of 13 14 Environmental Quality and as required under the National Pollutant Discharge
- 15 Elimination System (NPDES) Storm Water Discharge General Permit #1200-C. The certificate holder shall include in the ESCP any procedures necessary to meet local 16 17
 - erosion and sediment control requirements or storm water management requirements.
- 18 ii. Before beginning construction of Phase 2 wind energy generation components, the certificate holder shall submit to the Department and Gilliam County Planning Director 19 for review and approval a topsoil management plan including how topsoil will be 20 21 stripped, stockpiled, and clearly marked in order to maximize topsoil preservation and minimize erosion impacts. [OAR 660 033 0130(38)(f)(B)]. The topsoil management plan 22 23 may be incorporated into the final Erosion and Sediment Control Plan, required under sub(c) or may be provided to the Department as a separate plan. 24
- 25 iii. Prior to beginning facility operation, the certificate holder shall provide the Department a copy of an operational SPCC plan, if required pursuant to OAR 340-141-0001 to -0240. 26 27 [AMD4; AMD5]

29 **Conclusions of Law**

30

28

Based on the foregoing recommended findings of fact and conclusions of law, and subject to 31 compliance with existing and amended site certificate conditions, the Department recommends 32 that the Council find that facility, with proposed RFA5 modifications, would continue to comply 33 34 with the Council's Soil Protection standard.

35 36

37 38

39

- III.A.4 Land Use: OAR 345-022-0030
 - (1) To issue a site certificate, the Council must find that the proposed facility complies with the statewide planning goals adopted by the Land Conservation and Development Commission.
- (2) The Council shall find that a proposed facility complies with section (1) if:
- 42 43

1	(a) The applicant elects to obtain local land use approvals under ORS 469.504(1)(a)
2	and the Council finds that the facility has received local land use approval under
3	the acknowledged comprehensive plan and land use regulations of the affected
4	local government; or
5	
6	(b) The applicant elects to obtain a Council determination under ORS 469.504(1)(b)
7	and the Council determines that:
8	
9	(A) The proposed facility complies with applicable substantive criteria as
10	described in section (3) and the facility complies with any Land Conservation
11	and Development Commission administrative rules and goals and any land
12	use statutes directly applicable to the facility under ORS 197.646(3);
13	
14	(B) For a proposed facility that does not comply with one or more of the
15	applicable substantive criteria as described in section (3), the facility
16	otherwise complies with the statewide planning goals or an exception to any
17	applicable statewide planning goal is justified under section (4); or
18	
19	(C) For a proposed facility that the Council decides, under sections (3) or (6), to
20	evaluate against the statewide planning goals, the proposed facility complies
21	with the applicable statewide planning goals or that an exception to any
22	applicable statewide planning goal is justified under section (4).
23	***
24	(4) The Council may find goal compliance for a proposed facility that does not otherwise
25	comply with one or more statewide planning goals by taking an exception to the
26	applicable goal. Notwithstanding the requirements of ORS 197.732, the statewide
27	planning goal pertaining to the exception process or any rules of the Land
28	Conservation and Development Commission pertaining to the exception process, the
29	Council may take an exception to a goal if the Council finds:
30	(a) The land subject to the exception is physically developed to the extent that the
31	land is no longer available for uses allowed by the applicable goal;
32	(b) The land subject to the exception is irrevocably committed as described by the
33	rules of the Land Conservation and Development Commission to uses not allowed
34	by the applicable goal because existing adjacent uses and other relevant factors
35	make uses allowed by the applicable goal impracticable; or
36	(c) The following standards are met:
37	(A) Reasons justify why the state policy embodied in the applicable goal should
38	not apply;
39	(B) The significant environmental, economic, social and energy consequences
40	anticipated as a result of the proposed facility have been identified and
41	adverse impacts will be mitigated in accordance with rules of the Council
42	applicable to the siting of the proposed facility; and

1 2 (C) The proposed facility is compatible with other adjacent uses or will be made compatible through measures designed to reduce adverse impacts.

3

4 Findings of Fact

5

6 The Land Use standard requires the Council to find that a facility, with proposed changes,

7 complies with the statewide planning goals adopted by the Land Conservation and

8 Development Commission (LCDC). Under ORS 469.504(1)(b)(A), the Council may find

9 compliance with statewide planning goals if the Council finds that a facility, with proposed

10 changes, "complies with applicable substantive criteria from the affected local government's

11 acknowledged comprehensive plan and land use regulations that are required by the statewide

planning goals and in effect on the date the application is submitted." RFA5 was received on
 April 27, 2020.¹⁷

14

15 The analysis area for potential land use impacts, as defined in the Project Order, is the area

16 within and extending $\frac{1}{2}$ -mile from the site boundary.¹⁸

17

18 In RFA5, the certificate holder seeks approval to expand the previously approved solar

micrositing area, from 1,189 to 2,725 acres, to allow additional flexibility in the layout of

20 previously approved solar facility components.¹⁹ The solar micrositing area would be split

21 between the new site certificates for the Montague Solar Facility and Oregon Trail Solar Facility.

22 The Montague Solar Facility solar micrositing area would include 1,496 acres (1,189 acres of

23 previously approved micrositing area, plus the proposed addition of 307 acres). The Oregon

Trail Solar Facility solar micrositing area would include up to 1,228 acres; this solar micrositing

area would be located within the approved site boundary, but has not been previously

26 evaluated as a solar micrositing area. RFA5 also seeks approval for construction and operation

of an approximately 2-acre switching station within the Oregon Trail Solar Facility solar

28 micrositing area, near Bottemillier Lane; and use of an alternative route for approximately 3.6

29 miles of the previously approved 14-mile 230 kV transmission line route (alternative 230 kV

route), to be shared by the Montague Solar Facility and Oregon Trail Solar Facility site

- 31 certificates.
- 32

¹⁷ Preliminary Request for Amendment 5 was received on April 20, 2020, but did not include property owner information pursuant to OAR 345-027-0360(1)(f) necessary for the Department's procedural noticing requirement. Therefore, the date of receipt of the amendment request is based upon receipt of information required under OAR 345-027-0360, which occurred on April 27, 2020.

¹⁸ Also noted in the Project Order, the certificate holder must assess potential impacts beyond the analysis area if there are identified resources, such as a protected Goal 5 resource, that could result in significant adverse impacts, direct or indirect, from the facility or a proposed change to a facility. The certificate holder has not identified potential resources outside of the analysis area for which this would apply; however, this information is provided to inform the reviewer of the certificate holder's obligation to evaluate potential impacts if resources are identified during the RFA5 review process.

¹⁹ MWPAMD4 Final Order on RFA4. 2019-09.

- 1 Based on the proposed expansion of solar micrositing area, the certificate holder seeks Council
- 2 approval of an exception to the statewide policy embodied in Goal 3, Agricultural Lands, for the
- 3 use of more than 12 acres of high-value farmland and more than 20 acres of arable land by
- 4 previously approved solar facility components. Council previously granted a reasons exception
- 5 in the September 2019 Final Order on RFA4, based on solar photovoltaic energy generation
- 6 equipment on up to 1,189 acres high value and arable lands. In this order, the Department
- 7 presents the exception request as an amendment to Council's previously Goal 3 exception,
- 8 which if taken by Council for RFA5, would then apply to the Montague Wind Solar Facility and
- 9 Oregon Trail Solar Facility site certificates.
- 10 11

III.A.4.1 Local Applicable Substantive Criteria

- 12
- 13 Under OAR 345-022-0030(2), the Council must apply the applicable substantive criteria
- recommended by the Special Advisory Group (SAG). On November 20, 2010, the Council
- 15 appointed the Gilliam County Board of Commissioners as a SAG for EFSC proceedings related to
- the Montague Wind Power Facility, pursuant to ORS 469.480(1). The applicable substantive
- 17 criteria for which the certificate holder must comply are established in the Gilliam County
- 18 Zoning and Land Development Ordinance (GCZO) and Gilliam County Comprehensive Plan
- 19 (GCCP), as updated and amended in 2017. The applicable substantive criteria from GCZO and
- 20 goals and policies from GCCP are presented below in Table 1, *Gilliam County Applicable*
- 21 Substantive Criteria.
- 22

Gilliam County Zoning and Land Development Ordinance (GCZO)					
Article 4 – Use Zor	Article 4 – Use Zones				
Section 4.020	Exclusive Farm Use				
Section A	High Value Farmland				
Section C	Planning Director Review				
Section D	Conditional Uses Permitted				
Section H	Specific Review Criteria				
Section J	Property Development Standards				
Article 7 – Conditie	onal Uses				
Section 7.010	Authorization to Grant or Deny Conditional Uses				
Section A	General Approval Criteria				
Section 7.020	Standards Governing Conditional Uses				
Section A	Conditional Uses, Generally				
Section Q	Conditional Uses in Exclusive Farm Use Zones				
Article 8 – Supplementary Provisions					
Section 8.030	Clear Vision Areas				
Section 8.040	Outdoor Lighting Standards				
Section 8.050	Sign Regulations				
Section 8.100	Off-Street Parking Requirements				

Table 1: Gilliam County Applicable Substantive Criteria

	. Children County Applicable Substantive Criteria	
Section A	Number of Parking Spaces Required	
Section 8.140	Site Plan Review	
Section A	Purpose	
Section E	Detailed Plan	
Section F	Outdoor Storage and Activities, if Permitted in the Zone	
Section G	Topographic Information	
Section H	Drainage Plan	
Section I	Identification of Proposed Trash Storage Locations	
Section J	Location of All Existing and Proposed Utilities	
Section K	Elevation Drawings	
Section L	Approval Standards	
Section M	The Development Will Not Result In Traffic Volumes that	
Section M	Will Reduce the Performance Standard	
Section N	The Development Will Not Adversely Affect Agricultural	
Section N	or Forestry Uses	
Gilliam County Co	mprehensive Plan (GCCP)	
(Goal 2) Land Use Planning – Policy 7		
(Goal 3) Agricultural Lands – Policy 3		
(Goal 5) Natural Resources – Policies 2 and 12		
(Goal 6) Air, Water, and Land Resources Quality – Policies 6 and 7		
(Goal 8) Recreation – Policy 3		
(Goal 12) Transpor	rtation – Policies 10 and 14	
(Goal 13) Energy Conservation – Policy 3		

Table 1: Gilliam	County	Applicable	Substantive	Criteria
	county	Applicable	Jubstantive	Cificina

2 The Department reviewed the applicable substantive criteria presented in the table above and

3 the changes proposed in RFA5 to provide recommendation of compliance to Council. As

4 described throughout this order, the certificate holder proposes to expand the solar micrositing

5 area by 1,535 acres to allow additional flexibility in layout of previously approved solar facility

6 components, as well as a new switching station and alternate 230 kV route. These specific

7 facility modifications could change Council's previous findings of compliance and therefore are

8 evaluated in the section below.

9

10 Gilliam County Zoning Ordinance

11

12 The changes proposed in RFA5 are evaluated under the following land use categories

- 13 established in the Gilliam County Zoning Ordinance (GCZO):
- 14

• Commercial Utility Facilities for the Purpose of Generating Power for Public Use by Sale

- 16 (applies to expanded solar micrositing area, to be split and included in the Montague Solar
- 17 Facility and Oregon Trail Solar Facility site certificates the solar micrositing area would
- 18 include any layout of previously approved solar photovoltaic power generation equipment

- 1 including solar modules and other accessory equipment like a battery storage system,
- 2 trackers, posts, cabling, inverters, transformers, collection system, collection substations,
- 3 access roads, perimeter fencing, and gates, temporary construction areas; and, proposed
- 4 new switching station associated with Oregon Trail Solar Facility)
- 5 Utility Facilities Necessary for Public Service (alternate 230 kV route)
- 6 7

The following analysis addresses the applicable substantive criteria identified in the GCZO for the land uses listed above.

8 9

11

14

10 GCZO Article 4 Use Zones

- 12 GCZO Section 4.020: EFU Exclusive Farm Use
- 13 In an EFU Zone, the following regulations shall apply:
- A. High Value Farmland. Due to the limited amount of High Value Farmland in Gilliam
 County, the uses for High Value Farmland are not listed in this section. If a use permitted
 in Subsections B G of this section is located on High Value Farmland, the requirements
 of this section and the requirements of OAR 660, Division 33, shall be used for the
 review.
- 20
 21 GCZO Section 4.020(A) applies to permitted uses, as defined in GCZO Section 4.020(B) (G), on
 22 high value farmland, and requires compliance with applicable GCZO Section 4.020(B) (G) and
- 23 OAR 660-030-0130 provisions.
- 24

High-value farmland is defined in ORS 195.300(10) and implemented in the Land Conservation 25 and Development Commissions' administrative rule OAR 660-033-0020(8)(a), where there are 26 27 over 15 combinations of environmental conditions (e.g. soil, water, agricultural use) that would 28 define farmland as "high-value." In RFA5, the certificate holder proposes to expand the 29 previously approved solar micrositing area, from 1,189 to 2,725 acres. Within the additional 30 1,535 acres, approximately 436 acres are identified as "high-value" farmland under ORS 195.300(10)(f)(C) based on its location within Exclusive Farm Use (EFU) zoned land and, 31 Columbia Valley Viticulture area meeting certain requirements for elevation, slope, and aspect 32 33 (i.e. no more than 3,000 feet above mean sea level, with an aspect between 67.5 and 292.5 degrees and a slope between 0 and 15 percent).²⁰ In RFA5 Figure 11, the certificate holder 34

- 35 presents the location of the proposed solar micrositing areas overlain with Columbia Valley
- 36 Viticulture areas meeting the elevation, slope and aspect under ORS 195.300(10)(f)(C), which is
- 37 also represented in Figure 4: *Proposed Solar Micrositing Expansion Areas, High-Value Farmland,*
- 38 *and Arable Land* below.

²⁰ As presented in RFA5, of the 436 acres within ORS 195.300(10)(f)(c)-designated high-value farmland, 89.3 acres would be located within the Montague Solar Facility solar micrositing area and 347 acre would be within the Oregon Trail Solar Facility solar micrositing area.



1 Figure 4: Proposed Solar Micrositing Expansion Areas, High Value Farmland and Arable Land

\lgalt\proj\Avangrid\683329\MapFiles\RFA5\Figure_11_200414.mxd

Aerial Imagery Source: ESRI World Imagery

Based on the certificate holder's mapping and identification of OAR 195.300(10)(f)(C) high value 1 2 farmland areas within the proposed solar micrositing expansion areas and the identified land 3 use categories permissible within EFU-zoned land (commercial utility facilities..), the 4 Department agrees and recommends Council find that the proposed RFA5 facility modifications would impact high-value farmland within EFU-zoned land and necessitates review under GCZO 5 6 Section 4.020(C) and (D) and OAR 660-030-0130 provisions. The evaluation of compliance with 7 GCZO Section 4.020(C) and (D) and OAR 660-030-0130 provisions is presented in this section of 8 the order. 9 C. Planning Director Review. In the EFU zone, the following uses and their accessory uses 10 may be permitted if determined by the Planning Director to satisfy the applicable criteria 11 12 and provisions of law. Authorization of these uses does constitute a land use decision pursuant to ORS 197.015(10). Notice and an opportunity for a hearing must be provided 13 14 in the manner described in Section 11.140. These uses may be referred to the Planning 15 Commission for review if deemed appropriate by the Planning Director. (emphasis 16 added) 17 18 24. Utility facilities necessary for public service 19 GCZO Section 4.020(C)(24) identifies utility facilities "necessary" for public service as a 20 permissible use on high value farmland within EFU zoned land, subject to Planning Director 21 22 Review. Pursuant to 215.283(1)(c)(B), a transmission line is a utility necessary for public service 23 if it is an associated transmission as defined in ORS 215.274. 24 25 As described in RFA5, the certificate holder seeks approval to construct and operate a segment of the previously approved, approximately 14 mile 230 kV transmission line using either the 26 27 previously approved route or the previously approved route with an alternative route segment. 28 The previously approved segment exits east out of the Montague Solar collector substation, 29 crosses OR 19, and diagonals across fields to Old Tree Road where it may run on the north or 30 the south side of the road to reach the Montague Wind collector substation. The proposed alternate route segment would exit east out of the Montague Solar collector substation to a 90-31 32 degree turning structure just east of OR 19. From there, it would extend straight north along OR 19 (outside of the road right-of-way) until it reaches the corner of Old Tree Road where it would 33 turn east towards the Montague Wind collector substation (see Figure 7: Approved and 34 35 Proposed Alternate 230 kV Transmission Line Route). 36 37 As provided in Section III.A.4.2 Directly Applicable State Statutes, the proposed alternate 230 kV 38 route would be (part of) an associated transmission line. Notwithstanding the language in the county's code, the conditional use requirements beyond those that are consistent with ORS 39 215.274 are not applicable to the proposed alternative 230 kV route because, as a utility facility 40 41 necessary for public service under ORS 215.283(1)(c), the use is permitted subject only to the requirements of ORS 215.274 and the county cannot impose additional approval criteria. 42

43 Therefore, the Department recommends Council find that the proposed alternate 230 kV route

is a utility facility necessary for public service and that it is a permitted use in EFU-zoned land,
 subject to the evaluation criteria of ORS 215.274 presented below.

3

GCZO Section 4.020(D): Conditional Uses Permitted. In the EFU Zone, the following uses and
their accessory uses may be permitted, either by a Type I or a Type II Conditional Use Permit
to satisfy the applicable criteria and procedures set forth in Section 7.010. The appropriate
review criteria are identified for each use.

8 ***

11. Commercial utility facilities for the purpose of generating power for public use by sale, not including wind power generating facilities. A power generation facility not located on high-value farmland shall not preclude more than 20 acres from use as a commercial agricultural enterprise. Approval of a use pursuant to this subsection is subject to the review criteria of Section 4.020.H, and any other applicable criteria or provisions of law.

14 15

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11 12

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16 GCZO Section 4.020(D)(11) identifies "commercial utility facilities for the purposes of

17 generating power for public use by sale" (commercial utility facilities) as a permitted

18 conditional use in an EFU zone. The section limits commercial utility facilities from precluding

19 more than 12 acres of high-value farmland or more than 20 acres of arable land from use as a

- 20 commercial agricultural enterprise, unless an exception to the statewide policy embodied in
- Goal 3 is taken. GCZO Section 4.020(D)(11) also requires compliance with GCZO Section
 4.020(H) and Section 7.010 review criteria.
- 23

24 A commercial utility facility includes a photovoltaic solar power generation facility, with 25 components defined under OAR 660-033-0130(38)(f). In RFA5, the certificate holder proposes to expand the solar micrositing area by approximately 1,535 acres to allow additional flexibility 26 27 in layout of previously approved solar energy generation equipment, and proposes a new switching station. The proposed switching station would collect and transmit energy via a 28 29 previously approved aboveground 34.5 kV collector line from the Oregon Trail Solar Facility to the Montague Solar collector substation, which would then be transmitted via 34.5 collector 30 line to the Montague Wind collector substation and then to BPA's Slatt Substation for grid 31 32 integration. In RFA5, the certificate holder represents the proposed switching station as necessary grid interconnection equipment considered part of the photovoltaic solar power 33 generation facility under -0130(38)(f). Based on the operational function and purpose of the 34 35 proposed switching station, the Department agrees with the certificate holder and 36 recommends Council evaluate the switching station as part of the solar photovoltaic power 37 generation facility under GCZO Section 4.020(D)(11).

38

39 The proposed solar micrositing areas for the Montague Solar Facility and Oregon Trail Solar

40 Facility could preclude up to 89 and 347 acres, respectively, of high value farmland from use as

41 a commercial agricultural enterprise.²¹ The proposed solar micrositing areas for the Montague

²¹ MWPAMD5. RFA5 Table 8. 2020-05-29.

- Solar Facility and Oregon Trail Solar Facility could preclude up to 307 and 1,223 acres, 1 respectively, of arable land from use as a commercial agricultural enterprise.²² Therefore, 2 3 because the proposed solar micrositing areas may preclude more than 12 acres of high value 4 farmland and 20 acres of arable land from use as a commercial agricultural enterprise, the 5 certificate holder would not comply with the GCZO Section 4.020(D)(11) acreage limitation and 6 a Goal 3 exception would be needed. In RFA5, the certificate holder requests Council review 7 and approval of a Goal 3 exception, as evaluated in Section III.A.4.2 below. 8 9 The evaluation of GCZO Section 4.020(H) and Section 7.010, which apply per GCZO Section 4.020(D)(11), is presented under review of these criteria below. 10 11 12 GCZO SECTION 4.020(H) EFU SPECIFIC REVIEW CRITERIA 13 14 1. The use may be approved only where the County finds that the use will not: 15 a. Force a significant change in accepted farm or forest practices on 16 surrounding lands devoted to farm or forest use; or 17 18 b. Significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use. 19 20 21 GCZO Section 4.020(H) establishes review criteria for specific conditional uses within EFU zoned 22 land, including commercial utility facilities. The review criteria include a demonstration that the 23 proposed RFA5 facility modifications would not force a significant change or significantly 24 increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or 25 forest use. Because there are no forest uses or forest lands within the land use analysis area, there would be no potential impacts to forest lands.²³ 26 27 28 As presented above, the proposed expansion of solar micrositing areas for the Montague Solar 29 and Oregon Trail Solar Facilities are evaluated based on requirements applicable to a commercial utility facility and therefore GCZO Section 4.020(H) applies. In RFA5, the certificate 30 holder requests that because the site boundary, which establishes the analysis area, would not 31 32 change as a result of the proposed changes in solar micrositing area, that the Council find that there are no substantive changes to the evaluation of GCZO Section 4.020(H) from Council's 33 review of RFA4 and approval of the Final Order on RFA4 in September 2019. The Department 34 35 agrees that, because the analysis area has not changed as a result of proposed RFA5 facility 36 modifications and based on recent timing of Council's review (2019), the Council should rely on 37 its previous reasoning and analysis to make findings of compliance for this criteria, as 38 summarized below. Accepted Farm Practices 39
- 40

²² Id.

²³ MWPAMD4. Exhibit K Figure K-3A and K-3B. 2017-11-22.

1	The certifi	cate holder previously described that agricultural use on surrounding lands includes
2	dryland w	heat farming with limited irrigated farming and some grazing on rangeland (there is
3	no irrigate	ed farmland within the proposed solar micrositing expansion areas). Dryland wheat
4	crop land	is periodically left fallow (plowed but not planted) between plantings. Accepted farm
5	practices of	on surrounding lands devoted to farm use, verified by the certificate holder during
6	2017 surv	eys, include soil preparation in the spring and fall, sowing, fertilizing, pest and weed
7	managem	ent, and harvesting.
8		
9	Potential I	impacts to Accepted Farm Practices
10	The a secutif:	
11	Ine certifi	cate holder previously identified that potential impacts to accepted farm practices
12 13	from use c	of solar micrositing areas during construction could include:
14 15	•	Temporary, but minimal, crop yield interference from weed dispersal during ground disturbing activities
16	•	Changes to access points for routes to farm fields to accommodate construction
17		activities
18	•	Delays in delivery of farm products or increased time to access farm fields due to
19		increased truck traffic on Oregon Highway 19 (OR 19)
20	•	Soil erosion and compaction from ground disturbance
21 22	•	Decreased crop yield productivity if construction disturbance occurs prior to harvest
23	The certifi	cate holder previously identified that potential impacts to accepted farm practices
24	from use o	of solar micrositing areas during operation could include:
25		
26	•	Permanent changes to access points or routes to farm fields
27	•	Modified planting and harvest practices to avoid solar facility components
28	•	Varying application of fertilizers and other products to crops
29	•	Use, cover or occupation of up to 1,189 acres on farmland – which, as a result of
30		RFA5, would increase to 2,725 acres of farmland
31		
32	Council pr	eviously imposed several conditions that would minimize potential impacts to
33	accepted	farm practices within the surrounding area. Previously imposed conditions are
34	summariz	ed below:
35		
36	•	Condition 38 requires that, during construction and operation, the certificate holder
37		consult with area landowners and lessees and implement measures to reduce or
38		avoid adverse impacts to farm practices
39	•	Condition 39 requires that the certificate holder design and construct the facility to
40		minimize impacts to farm practices
41	•	Condition 43 requires that, during construction and operation, a Weed Control Plan
42		be implemented

1		Condition 73 requires that, during construction, traffic control measures be
2		implemented and notification of activities and schedule be provided to adjacent
3		landowners
4		 Condition 74 requires that, during construction, County roads not be used for
5		equipment and machinery parking
6		 Condition 80 requires that, during construction, erosion and sediment control
7		measures be implemented to minimize erosion and sediment impacts to adjacent
8		land use
9		• Condition 81 requires that, during construction, truck traffic be limited to improved
10		road surfaces, to the extent practicable, to minimize unnecessary soil compaction
11		• Condition 82 requires that, during construction, best management practices (such as
12		watering) be implemented for dust control
13		Condition 92 requires that, following completion of construction, temporarily
14		impacted agricultural areas be revegetated
15		
16	The cer	tificate holder proposes to administratively amend Condition 38 and 39, to remove
17	referer	ice to Phase 1 and Phase 2, in the amended Montague Wind Power Facility site
18	certific	ate and proposed new site certificates for the Montague Solar Facility and Oregon Trail
19	Solar Fa	acility, as presented below.
20		
21	Monta	gue Wind Power Facility
22		
23	Rec	commended Amended Condition 38: The certificate holder shall:
24	i.	<u>c</u> Consult with area landowners and lessees during construction and operation of Phase
25		1 of the facility and implement measures to reduce and avoid any adverse impacts to
26		farm practices on surrounding lands and to avoid any increase in farming costs.
27	ii.	Consult with area landowners and lessees during construction and operation of Phase 2
28		of the facility and implement measures to reduce and avoid any adverse impacts to
29		ongoing farm practices on surrounding lands, including coordination with the
30		landowner of the solar micrositing area to ensure that the final solar array layout does
31		not prevent the landowner from maximizing agricultural production on the land not
32		occupied by the solar array.
33		[Final Order on ASC; AMD4 <u>; AMD5]</u>
34		
35		Recommended Amended Condition 39 : The certificate holder shall design and
36		construct:
37		i. Phase 1 of the facility using the minimum land area necessary for safe construction
38		and operation. The certificate holder shall locate access roads and temporary
39		construction laydown and staging areas to minimize disturbance of farming practices
40		and, wherever teasible, shall place turbines and transmission interconnection lines
41		along the margins of cultivated areas to reduce the potential for conflict with farm

1	ii. Phase 2 of the facility to minimize the permanent impacts to agricultural land,
2	including to the extent practicable, using existing access roads, co-locating facilities,
3	reducing road and transmission line/collector line lengths, and designing facility
4	components to allow ongoing access to agricultural fields.
5	[Final Order on ASC; AMD4]
6	
7	Montague Solar Facility and Oregon Trail Solar Facility
8	
9	Recommended Amended Condition 38: The certificate holder shall:
10	i. c C onsult with area landowners and lessees during construction and operation of Phase
11	1 of the facility and implement measures to reduce and avoid any adverse impacts to
12	farm practices on surrounding lands and to avoid any increase in farming costs.
13	ii. Consult with area landowners and lessees during construction and operation of Phase 2
14	of the facility and implement measures to reduce and avoid any adverse impacts to
15	ongoing farm practices on surrounding lands, including coordination with the landowner
16	of the solar micrositing area to ensure that the final solar array layout does not prevent
17	the landowner from maximizing agricultural production on the land not occupied by the
18	solar array.
19	[Final Order on ASC; AMD4; AMD5]
20	
21	Recommended Amended Condition 39 : The certificate holder shall design and construct:
22	i. Phase 1 of the facility using the minimum land area necessary for safe construction and
23	operation. The certificate holder shall locate access roads and temporary construction
24	laydown and staging areas to minimize disturbance of farming practices and, wherever
25	feasible, shall place turbines and transmission interconnection lines along the margins of
26	cultivated areas to reduce the potential for conflict with farm operations. [Final Order
27	on ASC; AMD4]
28	ii. Phase 2 of the facility to minimize the permanent impacts to agricultural land, including
29	to the extent practicable, using existing access roads, co-locating facilities, reducing road
30	and transmission line/collector line lengths, and designing facility components to allow
31	ongoing access to agricultural fields.
32	[Final Order on ASC; AMD4; AMD5]
33	
34	The Department recommends Council administratively amend Conditions 38 and 39, based on
35	the certificate holder's representations, to align with proposed RFA5 facility modifications.
36	
37	The Council previously found that solar micrositing areas approved for the Montague Wind
38	Facility would not force a significant change in accepted farming practices because it would not
39	change or preclude access to farm operations on surrounding lands or landowners, would not
40	necessitate relocating any existing access routes or farm infrastructure, and would not result in
41	changes to the practices for planting, irrigating, fertilizing, or harvesting. In RFA5. the certificate
42	holder commits to designing the solar micrositing areas in order to provide farm access through
43	the site to adjoining fields, and designing perimeter gates to accommodate pass-through of

- farm equipment. Because the proposed expansion of solar micrositing area would include 1
- 2 design measures to minimize impacts to field access and farm equipment operation, and based
- 3 on compliance with the above-referenced and recommended amended conditions, the
- 4 Department recommends Council find that the certificate holder would satisfy the GCZO
- 5 Section 4.020(H)(1)(a) review criterion.
- 6 7

Potential Impacts to Cost of Accepted Farm Practices

- 8
- 9 The certificate holder previously described that use of the approved solar micrositing areas 10 would not require relocation of any access routes or farm infrastructure, and would not result in changes to the practices for planting, irrigating, fertilizing, or harvesting on surrounding land 11 12 devoted to farm use. Based on the certificate holder's representations, Council previously 13 found that use of up 1,189 acres on high-value farmland and arable land would not increase the 14 cost of accepted farm practices. For the same reasons previously relied upon, the Department 15 recommends Council find that the proposed increase in solar micrositing area from 1,189 to 2,725 acres on high value farmland and arable land would not increase the cost of accepted 16 17 farm practices and would continue to satisfy the GCZO Section 4.020(H)(1)(b) review criterion. 18 19 GCZO SECTION 4.020(J): Property Development Standards 20 21 PROPERTY DEVELOPMENT STANDARDS. In the EFU Zone, the following standards apply 22 to residential and nonresidential development. 1. Building Height. No limitations. 23 24 2. Setbacks 25 a. The front and rear yard setbacks from the property line shall be 25 feet. 26 b. The side yard setbacks from the property line shall be 25 feet. 27 GCZO Section 4.020(J) establishes setback standards for front, rear and side yards for 28 29 residential and nonresidential development within EFU zoned land. As described in GCZO 30 Article 4, nonresidential development includes new construction and substantial improvement 31 of any commercial, industrial or other nonresidential structure. 32 33 The proposed expansion of the solar micrositing area from 1,189 to 2,725 acres would include 34 nonresidential structures - previously approved collector substations, O&M building and 35 battery storage system, and proposed switching station. Council previously imposed Condition 36 42 to align with GCZO Section 4.020(J), which would continue to apply under the amended and 37 new site certificates proposed in RFA5. In RFA5, the certificate holder requests Council 38 administratively amend these conditions based on allocation of wind and solar facility 39 components under three separate site certificates. 40 41
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- 43

Montague Wind Power Facility

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Recommended Amended Condition 42: The certificate holder shall construct all facility
 components in compliance with the following setback requirements:

- (a) All facility components must be at least 3,520 feet from the property line of properties zoned residential use or designated in the Gilliam County Comprehensive Plan as residential.
- (b) Where (a) does not apply, the certificate holder shall maintain a minimum distance of 110-percent of maximum blade tip height, measured from the centerline of the turbine tower to the nearest edge of any public road right-of-way. The certificate holder shall assume a minimum right-of-way width of 60 feet.
- (c) Where (a) does not apply, the certificate holder shall maintain a minimum distance of
 1,320 feet, measured from the centerline of the turbine tower to the center of the
 nearest residence existing at the time of tower construction.
- (d) Where (a) does not apply, the certificate holder shall maintain a minimum distance of
 110-percent of maximum blade tip height, measured from the centerline of the turbine
 tower to the nearest boundary of the certificate holder's lease area.
 - (e) The certificate holder shall maintain a minimum distance of 250 feet measured from the center line of each turbine tower to the nearest edge of any railroad right-of-way or electrical substation.
 - (f) The certificate holder shall maintain a minimum distance of 250 feet measured from the center line of each meteorological tower to the nearest edge of any public road right-ofway or railroad right-of-way, the nearest boundary of the certificate holder's lease area or the nearest electrical substation.
 - (g) The certificate holder shall maintain a minimum distance of 50 feet measured from any facility O&M building to the nearest edge of any public road right-of-way or railroad right-of-way or the nearest boundary of the certificate holder's lease area.
- (h) The certificate holder shall maintain a minimum distance of 50 feet measured from any
 substation to the nearest edge of any public road right-of-way or railroad right-of-way
 or the nearest boundary of the certificate holder's electrical substation easement or, if
 there is no easement, the nearest boundary of the certificate holder's lease area.
- (i) Where (a) does not apply, the certificate holder shall maintain a minimum of 110
 percent of maximum blade tip height, measured from the centerline of the turbine
 tower from any overhead utility line. [Amendment #1]
- (j) Where (a) does not apply, the certificate holder shall maintain a minimum of 150
 percent of maximum turbine height from blade tip height, measured from the
 centerline of the turbine tower from federal transmission lines, unless the affected
 parties agree otherwise. [Amendment #1]
- (k) The certificate holder shall maintain a minimum distance of 25 feet measured from the
 fence line of the solar array to the nearest property line.
- (I) The certificate holder shall maintain a minimum distance of 25 feet measured from the
 front, rear and side yard of the battery storage system site to the nearest property line.

1	(m)	For Phase 2 facility components, all wind turbines must be setback a minimum distance
2		of 656 feet (200 meters), measured from the centerline of the turbine tower to the
3		nearest edge of the breaks of Rock Creek Canyon. [AMD4]
4		
5	Monta	gue Solar Facility
6		
7	Re	commended Amended Condition 42: The certificate holder shall construct all facility
8	cor	nponents in compliance with the following setback requirements:
9	(a)	All facility components must be at least 3,520 feet from the property line of properties
10		zoned residential use or designated in the Gilliam County Comprehensive Plan as
11		residential.
12	(b)	Where (a) does not apply, the certificate holder shall maintain a minimum distance of
13		110-percent of maximum blade tip height, measured from the centerline of the turbine
14		tower to the nearest edge of any public road right-of-way. The certificate holder shall
15		assume a minimum right-of-way width of 60 feet.
16	(c)	Where (a) does not apply, the certificate holder shall maintain a minimum distance of
17		1,320 feet, measured from the centerline of the turbine tower to the center of the
18		nearest residence existing at the time of tower construction.
19	(d)	Where (a) does not apply, the certificate holder shall maintain a minimum distance of
20		110 percent of maximum blade tip height, measured from the centerline of the turbine
21		tower to the nearest boundary of the certificate holder's lease area.
22	(e)	The certificate holder shall maintain a minimum distance of 250 feet measured from the
23		center line of each turbine tower to the nearest edge of any railroad right-of-way or
24		electrical substation.
25	(f)	The certificate holder shall maintain a minimum distance of 250 feet measured from the
26		center line of each meteorological tower to the nearest edge of any public road right-of-
27		way or railroad right-of-way, the nearest boundary of the certificate holder's lease area
28		or the nearest electrical substation.
29	(g)	The certificate holder shall maintain a minimum distance of 50 feet measured from any
30		facility O&M building to the nearest edge of any public road right-of-way or railroad
31		right-of-way or the nearest boundary of the certificate holder's lease area.
32	(h)	The certificate holder shall maintain a minimum distance of 50 feet measured from any
33		substation to the nearest edge of any public road right-of-way or railroad right-of-way
34		or the nearest boundary of the certificate holder's electrical substation easement or, if
35		there is no easement, the nearest boundary of the certificate holder's lease area.
36	(i)	Where (a) does not apply, the certificate holder shall maintain a minimum of 110
37		percent of maximum blade tip height, measured from the centerline of the turbine
38		tower from any overhead utility line. [Amendment #1]
39	(j)	Where (a) does not apply, the certificate holder shall maintain a minimum of 150
40		percent of maximum turbine height from blade tip height, measured from the
41		centerline of the turbine tower from federal transmission lines, unless the affected
42		parties agree otherwise. [Amendment #1]

1	(k)	The certificate holder shall maintain a minimum distance of 25 feet measured from the
2		fence line of the solar array to the nearest property line.
3	(1)	The certificate holder shall maintain a minimum distance of 25 feet measured from the
4		front, rear and side yard of the battery storage system site to the nearest property line.
5	(m) For Phase 2 facility components, all wind turbines must be setback a minimum distance
6		of 656 feet (200 meters), measured from the centerline of the turbine tower to the
7		nearest edge of the breaks of Rock Creek Canyon. [AMD4]
8		
9	Oregoi	n Trail Solar Facility
10		
11	Re	commended Amended Condition 42: The certificate holder shall construct all facility
12	cor	nponents in compliance with the following setback requirements:
13	(a)	All facility components must be at least 3,520 feet from the property line of properties
14		zoned residential use or designated in the Gilliam County Comprehensive Plan as
15		residential.
16	(b)	Where (a) does not apply, the certificate holder shall maintain a minimum distance of
17		110-percent of maximum blade tip height, measured from the centerline of the turbine
18		tower to the nearest edge of any public road right-of-way. The certificate holder shall
19		assume a minimum right-of-way width of 60 feet.
20	(c)	Where (a) does not apply, the certificate holder shall maintain a minimum distance of
21		1,320 feet, measured from the centerline of the turbine tower to the center of the
22		nearest residence existing at the time of tower construction.
23	(d)	Where (a) does not apply, the certificate holder shall maintain a minimum distance of
24		110-percent of maximum blade tip height, measured from the centerline of the turbine
25		tower to the nearest boundary of the certificate holder's lease area.
26	(e)	The certificate holder shall maintain a minimum distance of 250 feet measured from the
27		center line of each turbine tower to the nearest edge of any railroad right-of-way or
28		electrical substation.
29	(f)	The certificate holder shall maintain a minimum distance of 250 feet measured from the
30		center line of each meteorological tower to the nearest edge of any public road right-of-
31		way or railroad right-of-way, the nearest boundary of the certificate holder's lease area
32		or the nearest electrical substation.
33	(g)	The certificate holder shall maintain a minimum distance of 50 feet measured from any
34		facility the Montague Solar Facility O&M building to the nearest edge of any public road
35		right-of-way or railroad right-of-way or the nearest boundary of the certificate holder's
36		lease area.
37	(h)	The certificate holder shall maintain a minimum distance of 50 feet measured from any
38		substation to the nearest edge of any public road right-of-way or railroad right-of-way
39		or the nearest boundary of the certificate holder's electrical substation easement or, if
40		there is no easement, the nearest boundary of the certificate holder's lease area.
41	(i)	Where (a) does not apply, the certificate holder shall maintain a minimum of 110
42		percent of maximum blade tip height, measured from the centerline of the turbine
43		tower from any overhead utility line. [Amendment #1]

1 2	(j)	Where (a) does not apply, the certificate holder shall maintain a minimum of 150 percent of maximum turbine height from blade tip height, measured from the
3 1		centerline of the turbine tower from federal transmission lines, unless the affected
- -	(k)	The certificate holder shall maintain a minimum distance of 25 feet measured from $\frac{1}{2}$
6	(K)	the fence line of the solar array to the nearest property line
7	(1)	The certificate holder shall maintain a minimum distance of 25 feet measured from
8	(1)	the front, rear and side yard of the battery storage system site to the nearest
9		property line.
10	(m) For Phase 2 facility components, all wind Wind turbines must be setback a minimum
11		distance of 656 feet (200 meters), measured from the centerline of the turbine
12		tower to the nearest edge of the breaks of Rock Creek Canyon. [AMD4 <u>; AMD5</u>]
13		
14	Based on o	compliance with recommended amended Condition 42, the Department recommends
15	Council fin	Id that any solar facility components to be located within the proposed expanded
16	RFA5 solar	micrositing area, evaluated as nonresidential development, would satisfy the GCZO
1/	Section 4.0	J20(J) property development standards.
18		
19	<u>Article 7: C</u>	Lonaitional Uses
20	<u> </u>	70 Section 7 010: Authorization to Grant or Dony Conditional Lloss
21	GC	20 Section 7.010: Authonzation to Grant of Deny Conditional Uses
22	GC70 Sect	ion 7.010 establishes general approval criteria and conditions that may be applied to
23	conditiona	in 1.010 establishes general approval criteria and conditions that may be applied to
24 25	conultiona	in uses, regardless of the zone.
26	GC	ZO SECTION Z 010(A): GENERAL APPROVAL CRITERIA AND CONDITIONS
27		
28	А.	In addition to criteria, standards and conditions that may be set forth in a specific
29		Zone, this Article, or other regulations applicable to a specific Conditional Use shall
30		not be approved or permitted unless the following criteria are met. A Conditional Use
31		may be approved on the Condition or Conditions that the applicant obtain and
32		maintain compliance with other permits and approvals required.
33		
34		a. The proposed use shall be in compliance with the applicable Comprehensive
35		Plan designation and policies.
36		
37	GCZO Sect	ion 7.010(A)(1)(a) requires a demonstration that a proposed use would be in
38	complianc	e with the applicable designations and policies of the GCCP. The evaluation of
39	applicable	GCCP goals and policies is presented below, where the Department recommends
40	that the Co	ouncil find that the proposed RFA5 facility modifications would be consistent with the
41	GCCP. The	refore, the Department recommends Council find that the proposed RFA5 facility
42	modificati	ons would satisfy the GCZO 7.010(A)(1)(a) general approval criterion.
43		

- b. As applicable, sewage and/or solid waste disposal methods shall be provided in compliance with applicable local, State and Federal regulations.
- 4 GCZO Section 7.010(A)(1)(b) requires a demonstration that sewage and/or solid waste disposal 5 methods of a proposed use would comply with applicable local, State and Federal regulations. 6 7 Construction and operation of solar facility components within the proposed expanded solar 8 micrositing area would generate sanitary and solid waste. As previously described in RFA4 9 Exhibit U, onsite sanitary and solid waste generated during construction and operation would be disposed of offsite by a licensed contractor. Wastewater from O&M building sanitation 10 facilities would be managed by an Oregon Department of Environmental Quality (ODEQ)-11 12 permitted septic system. Council previously imposed Condition 110 requiring that the 13 certificate holder discharge sanitary wastewater generated at the O&M building to a licensed, 14 on-site septic system in compliance with state permit requirements. Condition 110, as 15 previously imposed, also requires the certificate holder to design the septic system for a discharge capacity of less than 2,500 gallons per day. The certificate holder previously 16 confirmed that wastewater generated at the O&M facility during facility operation would not 17 exceed 2,500 gallons of discharge per day.²⁴ Council also previously imposed Condition 28 18 requiring that the certificate holder and its contractors obtain all necessary federal, state and 19 20 local permits. Therefore, the Department recommends, based on compliance with Condition 28 21 and 110, Council find that the certificate holder would satisfy the GCZO Section 7.010(A)(1)(b) 22 general approval criterion. 23 24 c. Proposal shall be found to be in compliance or conditioned upon compliance 25 with applicable air and noise pollution standards. 26 GCZO Section 7.010(A)(1)(c) requires a demonstration that a proposed use would comply, or 27 28 with conditions would comply, with applicable air and noise pollution standards. 29 Applicable air and noise pollution standards are established in ODEQ's OAR 340-208-0210, 30 Visible Emissions and Nuisance Requirements and 340-035-0035, Noise Control Requirements, 31 32 respectively. ODEQ's visible emissions standard requires implementation of reasonable precautions to prevent particulate matter from becoming airborne; ODEQ's noise control 33 regulation requires compliance with an ambient degradation and maximum allowable noise 34 35 standard, as evaluated in Section III.A.10.1 Noise Control Regulations of this order. 36 37 Construction of solar facility components within the proposed expanded solar micrositing area would generate particulate matter (dust) emissions during ground disturbing activities. Council 38 previously imposed Condition 82 requiring that, during construction, the certificate holder 39 implement best management practices, such as watering roads and disturbed soil areas, to 40 minimize visible emissions, consistent with OAR 340-208-0210. Condition 82 would continue to 41

²⁴ MWPAMD4 Exhibits Q-DD Final 2019-04-05, p. V-6.

1	apply to construction activities within the proposed expanded solar micrositing area and would
2	support OAR 340-208-0210 compliance. Because operational activities within the proposed
3	expanded solar micrositing area would not include ground disturbing activities, particulate
4	matter emissions would not be expected and therefore OAR 340-208-0210 would not apply.
5	
6	Construction and operation of solar facility components within the proposed expanded solar
7	micrositing area would generate noise. Construction related noise is exempt from OAR 340-
8	035-0035. Operational noise and compliance with OAR 340-035-0035 is evaluated in Section
9	III.A.10.1. Noise Control Regulation, where the Department recommends Council find that the
10	certificate holder would, based on compliance with existing conditions, continue to comply with
11	OAR 340-035-0035.
12	
13	Based on the analysis described above, the Department recommends Council find that the
14	facility, with proposed RFA5 modifications, would continue to satisfy the GCZO Section
15	7.010(A)(1)(c) general approval criterion.
16	
17	d. Required access shall be legally established, available, and adequate to serve
18	the proposed use or provisions to provide such evident.
19	
20	GCZO Section 7.010(A)(1)(d) requires a demonstration that access necessary to serve the
21	proposed use be legally established, available and adequate. The Department interprets this
22	condition of approval as applicable to access roads to the proposed expanded and new solar
23	micrositing areas, as access would be necessary to serve the use.
24	
25	Council previously imposed Conditions 70 and 71 requiring that, prior to construction, the
26	certificate holder obtain all necessary permits and approvals for road approach, crossing and
27	modifications from Gilliam County Road Department and Oregon Department of
28	Transportation. These conditions would continue to apply to new roads and road
29	improvements within the proposed expanded and new solar micrositing areas.
30	
31	Council previously imposed Condition 5, which mirrors OAR 345-025-0006(5), and requires the
32	certificate holder to demonstrate that it is has obtained construction rights on all or parts of the
33	site prior to construction. ²⁵ Condition 5 is supported by Condition 28, which requires that the
34	certificate holder, prior to construction, obtain all necessary state, local and federal permits not
35	governed by the site certificate; local permits, such as zoning permits, would be required prior
36	to construction within the proposed expanded solar micrositing corridor and require landowner
37	signature concurring rights of the certificate holder to develop on their land (i.e. access rights).
38	These conditions would continue to apply to solar facility components constructed and
39	operated within the proposed expanded and new solar micrositing areas.
40	

²⁵ OAR 345-025-0006(5) allows flexibility for wind facilities and authorizes construction, if prior to obtaining rights on all of the site, construction rights have only been obtained on parts of the sites.

1 Based on compliance with existing conditions, the Department recommends Council find that

- 2 the certificate holder would continue to satisfy the GCZO Section 7.010(A)(1)(d) general
- 3 approval criterion.4
 - e. Public services deemed necessary shall be available or provisions for such provided and no use shall be approved which is found to exceed the carrying capacities of affected public services unless there are provisions to bring such capacities up to the need.

GCZO Section 7.010(A)(1)(e) requires a demonstration that a proposed use would not exceed the carrying capacities of public service necessary for the use. This general approval criteria aligns with the Council's Public Services standard at OAR 345-022-0110 and is evaluated in Section III.A.8 *Public Services* of this order.

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15 As evaluated in Section III.A.8 Public Services of this order, the Department recommends 16 Council find that, based on compliance with existing and recommended amended conditions, 17 construction and operation of solar facility components within the expanded solar micrositing 18 area would not exceed the carrying capacities of public service providers, including sewers and 19 sewage treatment, water, storm water drainage, solid waste management, housing, traffic 20 safety, police and fire protection, health care and schools. Therefore, the Department 21 recommends Council find that the facility, with proposed RFA5 modifications, would satisfy the 22 GCZO Section 7.010(A)(1)(e) general approval criterion.

- 23
- 24 25

f. Proposal shall be in compliance with the applicable standards and limitations of the primary and combining zone as may be applicable.

26 27 GCZO Section 7.010(A)(1)(f) requires a demonstration that a proposed use be in compliance with applicable standards and limitations of the applicable primary and combining zones. The 28 29 site boundary and proposed expanded solar micrositing area would be entirely within EFU-30 zoned land and would not be located within a designated combining zone. As identified above, the proposed RFA5 facility modifications would not satisfy GCZO Section 4.020(D)(11) or 31 32 4.020(H)(1)(a) (i.e. would not be in compliance with the applicable standards of the primary zone); however, the certificate holder requests Council review of a Goal 3 exception. As 33 presented in Section III.A.4.2, the Department recommends Council grant a Goal 3 exception, 34 35 which effectively provides an exception from Section 4.020(D)(11) and 4.020(H)(1)(a). 36 37

38

g. No use shall be approved which is found to have a significant adverse impact on resource-carrying capacities unless there are provisions for mitigating such impact.

- 39 40
- 41 GCZO Section 7.010(A)(1)(g) requires a demonstration that a proposed use would not have a
- 42 significant adverse impact on carrying capacities of resources, such as air, soil, water supply and
- 43 waterbodies. As presented in Sections III.A.3 Soil Protection, III.A.6 Fish and Wildlife Habitat,

and III.10.2. Removal-Fill, the Department recommends Council find that the proposed RFA5 1 2 facility modifications would not result in significant adverse impacts to the carrying capacities of 3 natural resources. Therefore, based on the analysis and reasoning presented in the referenced 4 sections, the Department recommends Council find that the facility, with proposed RFA5 5 modifications, would satisfy the GCZO Section 7.010(A)(1)(g) general approval criterion. 6 7 h. No use shall be approved which is found to exceed the carrying capacities of 8 affected public services and facilities. 9 10 GCZO Section 7.010(A)(1)(h) requires a demonstration that a proposed use would not exceed the carrying capacities of public services, such as police protection, fire protection, housing, 11 12 schools, hospitals, traffic safety, stormwater infrastructure, wastewater treatment, water 13 supply, necessary for the use. As presented in Sections III.A.8 Public Services of this order, the 14 Department recommends Council find, based on the evidence provided by the certificate holder in RFA4 and RFA5, that proposed RFA5 facility modifications would not result in 15 16 significant adverse impacts the carrying capacities of affected public services. Therefore, based 17 on the analysis and reasoning presented in the referenced section, the Department 18 recommends Council find that the facility, with proposed RFA5 modifications, would satisfy the 19 GCZO Section 7.010(A)(1)(h) general approval criterion. 20 21 *i.* All required State and Federal permits or approvals have been obtained or 22 will be as a condition of approval. 23 24 GCZO Section 7.010(A)(1)(i) requires a demonstration that all required State and Federal 25 permits or approvals have been or will be obtained for the proposed use. In RFA5, the 26 certificate holder represents that State permits necessary for the construction and operation of 27 solar facility components within the proposed expanded and new solar micrositing area include a 1200-C National Pollutant Discharge Permit, to manage stormwater and stormwater run-off, 28 29 and an onsite septic permit, both to be issued by ODEQ. Council previously imposed Conditions 30 28 and 29 requiring that the certificate holder provide copies of all necessary permits, including 31 third-party permits, prior to construction; these conditions would continue to apply. Based on 32 compliance with these conditions, the Department recommends Council find that the facility, with proposed RFA5 modifications, would satisfy the GCZO Section 7.010(A)(1)(i) general 33 34 approval criterion. 35 B. In addition to specific standards and/or conditions set forth by the applicable zone, 36 37 this article or some other applicable regulations, other conditions may be imposed that are determined necessary to avoid a detrimental impact, and to otherwise 38 39 protect the best interests of the surrounding area and the County as a whole. Such 40 conditions may include, but are not limited to, the following:

1	a. Limiting the manner in which the use is conducted including restricting the
2	time an activity may take place and restraints to minimize such
3	environmental effects as noise, vibration, air pollution, glare and odor.
4	b. Establishing a special setback or other open space or lot area or dimension.
5	c. Limiting the height, size or location of a building or other structure.
6	d. Designating the size, number, improvements, location and nature of vehicle
7	access points and parking or loading areas.
8	e. Limiting or otherwise designating the number, size, location, height, and
9	lighting of signs and outdoor lighting.
10	f. Requiring diking, screening, fencing, landscaping or another facility to protect
11	adjacent or nearby property and designating standards for its installation and
12	maintenance.
13	g. Protecting and preserving existing trees, vegetation, water resources, wildlife
14	habitat or other significant natural resources.
15	h. Limiting the term of the Conditional Use Permit to a specific time.
16	<i>i.</i> Requiring necessary on-site or off-site improvements and maintenance.
17	j. Requiring the holder of a Conditional Use Permit to obtain review, renewal, or
18	reapplication approval of the permit in the event that there is an increase in
19	impact from the use on public facilities beyond that which was projected at
20	the time of initial approval.
21	
22	GCZO Section 7.010(A)(2) describes conditions that "may be imposed [if] determined
23	necessary to avoid a detrimental impact, and to otherwise protect the best interests of the
24	surrounding area and the County as a whole." The ordinance lists discretionary conditions and
25	does not contain substantive standards. During review of pRFA5, the Department consulted
26	with the Gilliam County Planning Director and did not identify conditions that the County would
27	consider "necessary to avoid a detrimental impact and to otherwise protect the best interests
28	of the surrounding area and the County as a whole." Therefore, the Department recommends
29	Council not impose additional conditions under GCZO Section 7.010(A)(2).
30	
31	GCZO SECTION 7.020: STANDARDS GOVERNING CONDITIONAL USES
32	
33	GCZO SECTION 7.020(A) Conditional Uses, Generally
34	
35	1. Setback. Requirements are addressed in each individual zone.
36	
37	GCZO Section 7.020(A) specifies that setback requirements are established for uses within
38	specific zones. Therefore, compliance with applicable setback requirements is evaluated under
39	GCZO Section 4.020(J) and 7.020(T)(5)(d).
40	

1	GCZO SECTION 7.020(Q) Conditional Uses in Exclusive Farm Use Zones		
2	A Turne Ley Turne II Conditional Line in an Evolution Forme Line Zone may be appreciated only		
<u>э</u>		A Type Tor Type II Conditional Ose III an Exclusive Farm Ose Zone may be approved only when the Planning Director or Hearings had finds that the use will not:	
4 5		when the Planning Director of Hearings body jinds that the use will not.	
5		a Force a significant change in accented form or forest practices on surrounding	
0		u. Force a significant change in accepted jum of jorest practices on surrounding	
/ 0		h Significantly increase the cost of accented farm or forest practices on surrounding	
0		b. Significantly increase the cost of accepted jurn of jorest practices on surrounding	
9 10		ianas devolea lo jann or jorest use.	
11	6070	Section 7.020(0) establishes standards for Type 1 or Type 2 conditional uses within FELL	
12	70000	Land ²⁶ The standards require a demonstration that the proposed use would not force a	
12	signifi	icant change or significantly increase the cost of accented farm or forest practices on	
14	surro	unding lands devoted to farm or forest use, which mirror the review criteria under GC70	
15	Sectio	on 4 020(H) and OAR 660-033-0130(37). Because the evaluation under GCZO Section	
16	$7.020(\Omega)$ is identical to the evaluation under GC7O Section 4.020(H) and OAR 660-033-0130(38)		
17	it is not repeated. As presented under the evaluation of GC70 Section 4.020(H) and $OAR 660_{-}$		
18	033-0130(38) in this section of the order the Denartment recommends Council find that the		
19	nronosed expanded and new solar micrositing area would not be likely to force a significant		
20	change in accented farm practices or significantly increase the cost of accented farm practices		
21	on su	rrounding lands, and therefore would satisfy the applicable standards.	
22			
23	Articl	e 8. Supplementary Provisions	
24			
25	GCZO	SECTION 8.030 CLEAR VISION AREAS	
26			
27	А.	In all zones, a clear-vision area shall be maintained on the corners of all property at the	
28		intersection of two roads, a road and a driveway, or a road and a railroad. A clear-vision	
29		area shall contain no planting, fence, wall, structure, or temporary or permanent	
30		obstruction exceeding three and one-half feet (3½) in height, measured from the	
31		established road center line grade, except for authorized road signs and cyclone or other	
32		open construction fences which permit clear vision through the triangular area. Trees	
33		may be located in this area as long as all branches and foliage are removed to a height of	
34		eight (8) feet above the grade.	
35			
36	В.	A clear-vision area shall consist of a triangular area, two sides of which are lot lines	
37		intersecting at the corner of the lot, and the third side of which is a line across the corner	

²⁶ GCZO Section 4.020(D)(20) *Wind Power Generation Facilities* does not identify GCZO Section 4.020(H) as applicable; therefore, GCZO Section 4.020(H) does not apply to the proposed Phase 2 wind facility components. However, as noted in RFA4 Exhibit K, GCZO Section 4.020(H) is mirrored in OAR 660-033-0130(37); therefore, the evaluation of potential impacts of proposed Phase 2 wind facility components is appropriately evaluated in Section III.E.2 of this order.

of the lot joining the non-intersection ends of the other two sides. For purposes of this 1 2 section, lot lines shall be considered to be the edge of the right-of-way. 3 4 С. Any side of the triangular clear-vision area adjacent to a road, railroad, or access drive to a parking area shall be at least 30 feet. Any side of the clear-vision area adjacent to a 5 6 residential driveway shall be at least 15 feet. 7 8 GCZO Section 8.030 establishes requirements to maintain specified clear vision areas at corners 9 of property and road or railroad intersections and, lot lines. As described throughout RFA5, the 10 certificate holder proposes to expand and add new area within the previously approved 1,189 acre solar micrositing area, resulting in a 1,496 acre solar micrositing area for the Montague 11 12 Solar Facility and 1,228 acre solar micrositing area for the Oregon Trail Solar Facility. Primary 13 access to the solar micrositing areas would be from Bottemiller Lane and Weatherford Road. 14 The certificate holder represents that clear vision would be maintained at each point of 15 junction with primary or secondary access locations, and a triangular "clear-vision area" would be maintained on either side of intersections of Bottemiller Lane and Weatherford Road. In 16 17 accordance with previously imposed Conditions 70 and 71, the certificate holder would be 18 required to consult with ODOT and the Gilliam County Public Works Department prior to construction relating to this provision. As such, the Department recommends that the Council 19 find that the facility, with proposed RFA5 modifications, would satisfy this GCZO provision. 20 21 22 GCZO SECTION 8.040 – OUTDOOR LIGHTING STANDARDS 23 24 All outdoor lighting, including for accessory facilities and the lighting of commercial 25 signs, shall comply with the following: 26 A. Any outdoor light shall be shielded to illuminate downward. 27 B. The outdoor light source (bulb or element) shall not be visible at or beyond the 28 29 property line. C. Outdoor lights shall not exceed the height limit of the zone where the light will be 30 31 located. 32 D. Structures over 50 feet in height shall not be lighted unless required to be lighted by the Federal Aviation Administration (F.A.A.). Structures over 50 feet in height that 33 are required to be lighted by F.A.A. shall be shielded to illuminate upward. 34 35 36 GCZO Section 8.040 establishes outdoor lighting standards to minimize night-light impacts 37 within the surrounding area. Site certificate Condition 104 restricts the use of exterior lighting at nighttime, with the exception to accommodate: (a) minimum turbine tower lighting for FAA 38 requirements; (b) security lighting at O&M buildings and substations, provided that the lighting 39 is shielded or downward facing; (c) lighting necessary for repairs or emergencies and; (d) 40 41 minimum light necessary for construction activities. 42

1	As presented in RFA5, the proposed split and allocation of previously approved facility				
2	components under an amended Montague Wind Power Facility site certificate and two new site				
3	certificates for Montague Solar Facility and Oregon Trail Solar Facility would result in removal of				
4	wind turbines from the Montague Solar Facility. Therefore, the certificate holder requests that				
5	Condition	104 be administratively amended in the Montague Solar Facility site certificate to			
6	remove re	eference wind turbine related requirements because they are no longer applicable.			
7					
8	Montague	e Solar Facility			
9					
10	Re	commended Amended Condition 104: The certificate holder shall not use exterior			
11	nighttime lighting except:				
12	Th	e minimum turbine tower lighting required or recommended by the Federal Aviation			
13	Ad	ministration.			
14	(a)	Security lighting at the Montague Solar O&M buildings and at the substations,			
15		provided that such lighting is shielded or downward-directed to reduce glare.			
16	(b)	Minimum lighting necessary for repairs or emergencies.			
17	(c)	Minimum lighting necessary for construction directed to illuminate the work area			
18		and shielded or downward-directed to reduce glare.			
19		[Final Order on ASC; <u>AMD5]</u>			
20					
21	The Department recommends that the Council find that proposed RFA5 facility modifications				
22	would sat	isfy this GCZO provision.			
23					
24	GCZO SEC	TION 8.050 – SIGN REGULATIONS			
25					
26	Th	e following regulations shall apply to any sign erected, moved, or altered after			
27	ad	option of this Ordinance. Official traffic control signs and instruments of the state,			
28	CO	unty, or municipality are exempt from all provisions of this Section.			
29					
30	А.	All outdoor advertising signs shall be in compliance with the provision of ORS Chapter			
31		377 when applicable.			
32	В.	No outdoor advertising sign permitted by ORS 377 shall be erected within 100 feet of			
33		a residential dwelling without written consent of the owner and/or occupant of said			
34		dwelling.			
35	С.	No sign shall be placed in a manner that will interfere with visibility or effectiveness			
36		of any official traffic sign or signal, or with driver vision at any access point or			
37		intersection.			
38	D.	No sign shall cause glare, distraction or other driving hazards, or by position, shape,			
39		color or other characteristic be similar to any traffic signal.			
40	Ε.	Light from a sign shall be directed away from roads and adjacent parcels. The light			
41		source shall be shielded to illuminate downward and the light source shall not be			
42		visible beyond the property line or parcel on which the sign is located. No sign may			

1		incorporate a bare incandescent bulb with wattage exceeding 20 watts, except as a
2		shielded indirect light source. Illuminated signs require an electrical permit.
3	<i>F</i> .	Sign structures may be placed within the required setbacks from property lines
4		provided they comply with the vision clearance standards of Section 8.030, but may
5		not be placed within or overhang a dedicated right-of-way unless a permit approving
6		the location has been issued by the Oregon Department of Transportation or County
7		Road Master.
8	G.	No sign may be situated in a manner that results in the blanketing of an existing sign.
9	Н.	Prohibited Signs-The following types of signs are allowed in commercial, industrial
10		and service community zones, but are prohibited in all other zones:
11		1. Moving or flashing signs or signs which incorporate video or fiber optic displays
12		or other mediums that display changing or moving text or images.
13		2. Anchored balloon or other inflatable signs.
14		3. Roof-mounted signs. Sign Size Standards
15	Ι.	Sign area shall be calculated based on the overall dimensions of all panels that
16		display messages. When the sign message is not mounted on a panel, the sign area
17		shall be calculated by drawing a regular geometric shape around the message area.
18		For signs that are incorporated into murals, awnings and similar architectural
19		features, only the portion of the sign considered to contain a message will be
20		calculated as sign area. Signs shall meet the following size standards:
21		1. Free-standing signs shall not exceed 35 feet or the height limit of the zone,
22		whichever is less.
23		2. Signs mounted above an entrance to a building shall have a minimum ground
24		clearance of eight feet.
25		3. Building-mounted signs shall not extend more than one foot above the exterior
26		wall of the building.
27		4. Temporary signs that are 32 square feet or smaller are permitted in any zone.
28		5. In the Exclusive Farm Use zone, one or more signs with a combined total area not
29		exceeding 32 square feet are permitted on any tract. No more than one free-
30		standing sign is permitted per parcel.
31		6. In the Airport Development, Limited Industrial and General Industrial zones, one
32		or more signs with a combined total area not exceeding 300 square feet are
33		permitted on any parcel. No individual sign shall exceed 150 square feet in area.
34		No more than one free-standing sign is permitted per parcel.
35		7. In all other zones not specified in subsection 6, one or more signs with a
36		combined total area not exceeding eight square feet are permitted on any parcel.
37	0070 0	
38	GCZO Sect	tion 8.050 establishes specific requirements for outdoor signs. The certificate holder
39	represents	s that the access points for each facility, based on proposed split of Montague Wind
40	Power Fac	ility into three separate facilities, would include signage that would be designed to

41 adhere to GCZO 8.050 requirements. Because access to each facility would include up to three

outdoor signs, the Department recommends Council impose a condition to support compliance
 with GCZO Section 8.050, as presented below:²⁷

3					
4	Montague Wind Power Facility, Montague Solar Facility and Oregon Trail Solar Facility				
5					
6	Recommended Condition 119: Prior to construction and operation of the facility, the				
7	certificate holder shall identify the number of outdoor signs and applicable Gilliam County				
8	Zoning Ordinance (GCZO) Section 8.050 Sign Regulation provisions and provide to the				
9	<u>Department and Gilliam County Planning Department written confirmation that outdoor</u>				
10	signage complies with the applicable provisions.				
11					
12	Based on compliance with the above-recommended condition, the Department recommends				
13	Council find that the proposed RFA5 facility modifications would comply with GCZO Section				
14	8.050.				
15					
10	GCZO SECTION 8.100 - OFF-STREET PARKING REQUIREMENTS				
10	At the time of construction reconstruction or enlargement of a structure or at the time				
19	At the time of construction, reconstruction, or emargement of a structure, or at the time				
20	accordance with standards required below:				
21					
22	A. NUMBER OF PARKING SPACES REQUIRED				
23					
24	1. The minimum number of parking spaces required for various uses is shown in this				
25	section. Square feet specifications refer to the floor area of the building containing				
26	the use. In addition to these requirements, one space is required per employee				
27	working on the premises during the largest anticipated shift at peak season,				
28	including proprietors.				
29	2. Parking requirements for uses not specified in (A) shall be based on the listed use				
30	that is most similar to the proposed use. If no use listed in (A) is similar to the				
31	proposed use, the applicant shall submit a parking study that includes an estimate of				
32	the parking demand based on recommendations of the Institute of Traffic Engineers				
33	or similar data.				
34	3. Accessible (ADA) parking spaces shall be provided in accordance with current state				
35	Structural Specialty Code and ODOT adopted standards.				

²⁷ On the record of the draft proposed order, the certificate holder requests removal of recommended Condition 119 because it is not a condition normally imposed in site certificates and that the requirements of the condition would be satisfied upon application and issuance of local permits from Gilliam County. Based on the Department's consultation with Gilliam County Planning Director Michelle Colby on July 28, 2020 and comments from Council during the July 24, 2020 review of the draft proposed order, recommended Condition 119 aligns the local and state requirements, consistent with the intent of the siting process and is recommended be maintained in each site certificate. MWPAMD5 DPO Comments Certificate Holder Hutchinson 2020-07-23.

1	4. li	n the event several uses occupy a single structure or parcel of land, the number of			
2	r	equired spaces shall be the total of the requirements for all of the uses.			
3	5. L	Ises that require more than ten parking spaces shall include an area designated for			
4	b	icycle parking, with bike racks that will accommodate at least one bicycle for each			
5	t	en vehicle parking spaces. The bicycle parking area may be in the same location as			
6	t	he vehicle parking spaces or may be located closer to the building entrance or use.			
7					
8	GCZO Sectio	n 8.100(A) establishes parking requirements for proposed uses. Parking			
9	requirement	ts would apply to previously approved collector substations, O&M buildings, and			
10	proposed switching station. The certificate holder previously confirmed that facility				
11	components	s would be designed to comply with parking requirements imposed by GCZO			
12	8.100(A)(1).	Based on the certificate holder's representation, to be verified upon receipt of the			
13	building/zor	ning permit obtained prior to construction (Condition 28), the Department			
14	recommend	s Council continue to find that the facility, with proposed RFA5 facility			
15	modificatior	ns, would comply with GCZO Section 8.100(A).			
16					
17	GCZO SECTIO	ON 8.140 – SITE PLAN REVIEW			
18					
19	GCZO Sectio	n 8.140 Site Plan Review applies to the proposed RFA5 facility modifications based			
20	on the prop	osed increase in solar micrositing area and changes in layout of solar facility			
21	components	s, as evaluated below.			
22					
23	A.PU	IRPOSE			
24	The µ	ourpose of site plan review is to provide for administrative review of the design of			
25	certa	in developments and improvements in order to promote functional, safe,			
26	inno	vative, and attractive site development that is compatible with the natural and man-			
27	made	e environment and is consistent with applicable requirements of this Ordinance.			
28					
29	E. C	DETAILED PLAN for any required or proposed landscaping that shall clearly illustrate:			
30	1	. Plants and tree species, their initial sizes and other proposed landscaping			
31		materials.			
32	2	The location and dimensions of all areas to be devoted to landscaping, and			
33		location of any automatic sprinkler systems.			
34					
35	GCZO Sectio	n 8.140(E) requires, as applicable, a landscaping plan as part of Site Plan Review.			
36	The certificate holder represents that the facility, with proposed RFA5 modifications, would not				
37	include land	scaping.			
38					
39	F. C	DUTDOOR STORAGE AND ACTIVITIES, IF PERMITTED IN THE ZONE: Type, location and			
40	h	neight of screening devices.			
41					
42	GCZO Section 8.140(F) requires identification of the type, location and height of any screening				
43	devices for outdoor areas used for storage or related activities, as part of Site Plan Review.				

Previously approved related or supporting facilities include temporary laydown areas which
 would be used for equipment and material staging and storage. The certificate holder has not
 represented any screening devices for the perimeter of temporary laydown areas.

- 4 5
- G. TOP

G. TOPOGRAPHIC INFORMATION for any area with slopes exceeding 10 percent. Contour intervals shall be ten feet or smaller.

6 7

8 GCZO Section 8.140(G) requires topographic information for areas within slopes exceeding 10

9 percent as part of Site Plan Review. Previously approved facility components would be located

in site boundary area with slopes exceeding 10 percent. Therefore, in compliance with the

11 provision, the certificate holder provides slope 10-foot elevation contours, as presented in

- Figure 5: *Proposed Solar Component Layout and Elevation Contours*, below. Based on the
 mapping provided, the Department recommends that the Council find that the facility, with
- 14 proposed RFA5 modifications, would satisfy this GCZO provision.

Oregon Department of Energy



1 Figure 5: Proposed Solar Equipment Layout and Elevation Contours

2

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H. DRAINAGE PLAN, or evidence that stormwater runoff will be accommodated by an 1 2 existing storm drainage system. 3 4 GCZO Section 8.140(H) requires a drainage plan as part of Site Plan Review. Council previously imposed Condition 80, requiring that the certificate holder obtain, prior to construction, a 5 6 ODEQ-issued National Pollutant Discharge Elimination System (NPDES) 1200-C General 7 Stormwater Discharge Permit. The NPDES 1200-C permit establishes requirements for the 8 management of stormwater runoff from the site, and requires engineering drawings of site 9 drainage. The NPDES 1200-C permit has not yet been obtained for construction activities within 10 the proposed expanded solar micrositing area. 11 12 Because the NPDES 1200-C permit manages stormwater runoff, consistent with GZCO Section 13 8.140(H), the Department recommends Council find that compliance with Condition 80 would 14 satisfy this provision. In addition, the Department would provide a copy of the NPDES 1200-C 15 permit to the county, prior to construction, as part of OAR 345-025-0016 agency consultation, as further evidence of consistency with GCZO Section 8.140(H). 16 17 18 I. IDENTIFICATION OF PROPOSED TRASH STORAGE LOCATIONS, including proposed enclosure design construction and access for pickup purposes. 19 20 21 GCZO Section 8.040(I) requires identification of proposed trash storage locations, enclosure 22 design, and trash pickup access for Site Plan Review. During operation the Montague Wind 23 Facility, Montague Solar Facility and Oregon Trail Solar Facility, minimal quantities of trash 24 would be generated at the Montague Solar O&M building, which would be shared by the 25 Montague Solar and Oregon Trail Solar Facilities (Montague Wind Power Facility would 26 continue to share an O&M building with the Leaning Juniper IIA facility). Access to the O&M 27 building would be provided from a gated entry point off of OR-19, as presented in Figure 5: Proposed Solar Equipment Layout and Elevation Contours above. Based on access presented on 28 29 Figure 5 above, the Department recommends Council find that the facility, with proposed RFA5 modifications, would comply with GCZO Section 8.040(I). 30 31 32 J. LOCATION OF ALL EXISTING AND PROPOSED UTILITIES and septic systems on or 33 abutting the property. 34 35 GCZO Section 8.040(J) requires identification of existing and proposed utilities and septic 36 systems on or abutting the property. The certificate holder previously identified that electricity 37 needed at the O&M building would be provided from PacifiCorp or the Columbia Basin Electric 38 Co-op, and a septic system would be located onsite to service O&M domestic purposes. Water would be provided onsite through the use of an exempt well. Based on the identification of 39 existing and proposed utilities, the Department recommends that Council find that the facility, 40 41 with proposed RFA5 modifications, would satisfy this GCZO provision. 42 43

1 K. ELEVATION DRAWINGS showing the exterior appearance of all proposed buildings. 2 3 GCZO Section 8.040(K) requires elevation drawings for all proposed buildings as part of Site Plan 4 Review. In RFA5, the certificate holder proposes to construct and operate a switching station – a related or supporting facility to be included in the Oregon Trail Solar Facility site certificate. 5 6 Elevation drawings would be required for this building to satisfy the provision. Council 7 previously imposed Condition 28 requiring that the certificate holder obtain all necessary 8 permits and approvals prior to construction. Elevation drawings would be provided to the 9 county at the time the certificate holder requests county approval of a building permit for the proposed switching station. Therefore, the Department recommends Council find that based 10 upon compliance with Condition 28, the certificate holder would satisfy GCZO Section 8.040(K). 11 12 13 L. APPROVAL STANDARDS: 14 1. All provisions of this zoning ordinance and other applicable regulations are complied 15 with. 2. Elements of the site plan are arranged so that: 16 17 a. Traffic congestion is avoided. 18 b. Pedestrian and vehicular safety and welfare are protected. c. Significant features and public amenities are preserved and maintained. 19 20 d. Surface drainage systems are designed so as not to adversely affect neighboring 21 properties, roads, or surface and subsurface water quality. 22 e. Structures and facilities for storage, machinery and equipment, services (mail, 23 refuse, utility wires, etc.), loading and parking and similar accessory areas shall be buffered or screened to minimize adverse impact on neighboring properties. 24 25 26 GCZO Section 8.040(L) establishes approval standards for Site Plan Review. 27 28 M. THE DEVELOPMENT WILL NOT RESULT IN TRAFFIC VOLUMES THAT WILL REDUCE THE 29 PERFORMANCE STANDARD of a transportation facility below the minimum acceptable level identified in the Transportation System Plan (LOS C). This standard may be met 30 through a condition of approval requiring improvements to the transportation facility. 31 32 GCZO Section 8.040(L) requires a demonstration that the development would not result in 33 traffic volumes that would reduce performance standards to a level of service (LOS) C. The 34 35 changes proposed in RFA5 would not result in increases in daily traffic volumes previously 36 evaluated for the facility, where level of service would not be decreased to LOS C. 37 38 N. THE DEVELOPMENT WILL NOT ADVERSELY AFFECT AGRICULTURAL OR FORESTRY USES. 39 40 41 GCZO Section 8.040(N) prohibits adverse effects from a proposed use to agricultural or forested uses. As evaluated above under Section GCZO 4.020(H), the Department recommends that the 42 43 Council find that the facility, with proposed RFA5 modifications, would not result in a significant

change in agricultural practices, or would not result in adverse effects. As such, the Department 1 2 recommends that the Council find that this provision of the GCZO is satisfied. 3 4 **Gilliam County Comprehensive Plan** 5 6 The Gilliam County Comprehensive Plan (GCCP) is modeled after, and is consistent with, 7 Oregon's Statewide Planning Goals. Under GCZO 7.010(A)(1)(a), a conditional use must be in 8 compliance with the Comprehensive Plan. The relevant Comprehensive Plan provisions are 9 discussed below: 10 11 Goal 3. Agricultural Lands 12 13 Goal: To preserve and maintain agricultural lands. 14 15 The policies adopted in Goal Three of the Comprehensive Plan outline County policy with regard to agriculture and the preservation of agricultural lands. These policies are founded 16 17 on the authority given a county to establish Exclusive Farm Use zones (ORS 215.203), to 18 exercise its authority in these zones to protect the health, safety and welfare of the citizens (ORS 215.253{2}) and to review and regulate proposals for subdividing farm lands (ORS 19 20 215.263). The policies are intended to support the state's agricultural land use policy (ORS 21 215.243) and should be so interpreted and construed. 22 23 Policies: 24 25 In consideration of the above Findings, the Gilliam County Court adopts the following 26 policies: 27 1. In order to preserve the maximum level of agriculture in the County, all "Agricultural 28 29 Lands" shall be so designated and shall be zoned in accordance with the provisions of ORS 215.283. Further, those non-farm uses permitted by ORS 215.283(1) shall be 30 permitted uses, and those non-farm uses permitted by ORS 215.283(2) may be 31 32 allowed as conditional uses subject to ORS 215.296. 33 This policy is implemented under GCZO Section 4.020. As noted by the certificate holder, the 34 35 proposed expansion of the solar micrositing area would not comply with the County's "Goal 3," 36 because the proposed expansion would exceed acreage thresholds contained within GCZO 37 4.020(D)(11) and would be required to obtain a goal exception under ORS 469.504(4). The Department recommends approval of the Goal Exception in Section III.A.4.1 of this order. 38 Therefore, the Department recommends that the Council conclude that the facility, with 39 proposed RFA5 modifications, would be consistent with this policy. 40

1 2	Goal 5. Natural Resources, Scenic, and Historic Areas, and Open Spaces		
3	Goal: To conserve open space and protect natural and scenic resources.		
4 5	Policies		
5	Folicies.		
7	2 The Department of Eich and Wildlife (ODEW) will be consulted when proposed land		
/ 0	2. The Department of Fish and Whallje (ODFW) will be consulted when proposed fund		
0	use actions may affect fish of whange habitats.		
9 10	This policy requires consultation with ODEW when proposed land use actions may affect fish or		
10	wildlife babitate within natural resources, sconic and historic areas, and open spaces. The		
12	proposed REAE facility modifications would not result in impacts to fish and wildlife habitate		
12	proposed KLAS facility mounications would not result in impacts to fish and whome habitat,		
17	nonetneiess, the Department is obligated to consult with ODFW for the life of the facility during		
14 15	wood management, revegetation and wildlife surveys and mitigation. Eurthermore, Conditions		
16	91 through 101 also require further ODEW consultation (in pertipent part) relating to the		
17	Wildlife Monitoring and Mitigation Plan (W/MMP) Revegetation Plan. Habitat Mitigation Plan		
10	Washington Ground Squirrel surveys, and sensitive wildlife surveys. Therefore, the Department		
10	recommends that the Council conclude that the facility, with proposed REA5 modifications		
20	would be consistent with this policy		
20	would be consistent with this policy.		
21	12 Gilliam County will continue to encourage the development of alternative sources of		
23	energy		
24	chergy.		
25	This comprehensive plan policy is a directive to the County to encourage alternative energy		
26	development in its implementation of its plan. However, to the extent this policy is considered		
27	an "applicable substantive criteria." the proposed REA5 facility modifications could be		
28	considered an "alternative" source of energy because it would expand the development of		
29	solar facility components. Therefore, the Department recommends that the Council conclude		
30	that the facility, with proposed RFA5 modifications, would be consistent with this policy.		
31			
32	Goal 6. Air, Water and Land Resources Quality		
33			
34	Goal: To maintain and improve the quality of the air, water, and land resources of the state.		
35			
36	Policies:		
37			
38	6. All new industrial development should comply with DEQ air, noise and water quality		
39	standards.		
40			
41	7. The Department of Environmental Quality and other affected agencies should be		
42	notified of all proposals for industrial development or other uses which may affect		
This policy requires that development comply with relevant air, water, and land standards. Based on consultation with ODEQ, there are no new air, noise or water quality standards that would apply to the proposed expansion of the solar micrositing area or switching station. Council previously imposed Condition 80 requiring that, prior to construction, the certificate holder obtain a NPDES 1200-C permit from DEQ, which would manage stormwater runoff at the site and dust during construction; Council previously imposed Condition 106 through 108, which emanate from DEQ noise standards. Therefore, the Department recommends that, based on compliance with previously imposed conditions, Council find that the proposed RFA5 facility modifications would be consistent with this policy. Goal & Recreation Needs f Goal: To satisfy the recreation needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including destination resorts. Policies: 3. Private development should not be permitted if it would block access to or otherwise have a significant adverse impact on public open space lands. The proposed RFA5 facility modifications, including the proposed solar micrositing area expansion and switching station, would be located on private land and would not block access to or	1 2 3	environmental quality. Their comments should be considered in decisions concerning the proposal.	
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8 holder obtain a NPDES 1200-C permit from DEQ, which would manage stormwater runoff at the 9 site and dust during construction; Council previously imposed Condition 106 through 108, 10 which emanate from DEQ noise standards. Therefore, the Department recommends that, based 11 on compliance with previously imposed conditions, Council find that the proposed RFA5 facility 12 modifications would be consistent with this policy. 13 Goal 8. Recreation Needs 14 Goal 7. To satisfy the recreation needs of the citizens of the state and visitors and, where 17 appropriate, to provide for the siting of necessary recreational facilities including destination 18 resorts. 19 Policies: 20 Policies: 21 3. Private development should not be permitted if it would block access to or otherwise have a significant adverse impact on public open space lands. 26 This policy prohibits private development if such development would block access to public 27 open space lands, or otherwise have a significant adverse impact on public open space lands. 28 The proposed RFA5 facility modifications, including the proposed solar micrositing area 29 expansion and switching station, would be located on private land and would not block access 29	7	Council previously imposed Condition 80 requiring that, prior to construction, the certificate	
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11 on compliance with previously imposed conditions, Council find that the proposed RFA5 facility 12 modifications would be consistent with this policy. 13 Goal 8. Recreation Needs 14 Goal: To satisfy the recreation needs of the citizens of the state and visitors and, where 17 appropriate, to provide for the siting of necessary recreational facilities including destination 18 resorts. 19 Policies: 21 3. Private development should not be permitted if it would block access to or otherwise 23 have a significant adverse impact on public open space lands. 24 This policy prohibits private development if such development would block access to public 25 open space lands, or otherwise have a significant adverse impact on public open space lands. 26 The proposed RFA5 facility modifications, including the proposed solar micrositing area 26 expansion and switching station, would be located on private land and would not block access 27 find that the proposed RFA5 facility modifications would be consistent with this policy. 28 foor otherwise impact public open space lands. Therefore, the Department recommends that 29 Goal 12. Transportation 31 Goal: To provide and encourage a safe, convenient, and economic tran	10	which emanate from DEQ noise standards. Therefore, the Department recommends that, based	
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 This policy prohibits private development if such development would block access to public open space lands, or otherwise have a significant adverse impact on public open space lands. The proposed RFA5 facility modifications, including the proposed solar micrositing area expansion and switching station, would be located on private land and would not block access to or otherwise impact public open space lands. Therefore, the Department recommends that Council find that the proposed RFA5 facility modifications would be consistent with this policy. <i>Goal 12. Transportation</i> <i>Goal: To provide and encourage a safe, convenient, and economic transportation system.</i> <i>Policies:</i> 10. Operation, maintenance, repair and preservation of existing transportation facilities shall be allowed without land use review, except where specifically regulated. 14. Gilliam County shall provide notice to ODOT of land use applications and development permits for properties that have frontage or access onto a state highway. 	23 24	nuve a significant duverse impact on pablic open space lanas.	
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 37 38 10. Operation, maintenance, repair and preservation of existing transportation facilities 39 shall be allowed without land use review, except where specifically regulated. 40 41 14. Gilliam County shall provide notice to ODOT of land use applications and 42 development permits for properties that have frontage or access onto a state 43 highway. 	36	Policies:	
 10. Operation, maintenance, repair and preservation of existing transportation facilities shall be allowed without land use review, except where specifically regulated. 40 41 14. Gilliam County shall provide notice to ODOT of land use applications and 42 development permits for properties that have frontage or access onto a state 43 highway. 	37		
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 40 41 14. Gilliam County shall provide notice to ODOT of land use applications and 42 development permits for properties that have frontage or access onto a state 43 highway. 	39	snail be allowed without land use review, except where specifically regulated.	
42 development permits for properties that have frontage or access onto a state 43 highway.	40 11	14. Gilliam County shall provide notice to ODOT of land use applications and	
42 <i>Levelopment permiss for properties that have frontage of access onto a state</i> 43 <i>hiahway</i> .	+⊥ ∕\?	development permits for properties that have frontage or access onto a state	
	43	hiahway.	

1 2 3 4 5 6 7 8 9	This policy prohibits development from interfering with the operation, maintenance, repair and preservation of existing transportation facilities. Based upon the proposed expansion of solar micrositing area, because it would be within previously approved site boundary, previously evaluated facility access and use of interstate, state, and county roads during construction and operation would not change. No new public roads would be constructed as a result of the modifications proposed in RFA5. The facility, with proposed RFA5 modifications, would result in potential road modifications to Oregon Highway 19, Berthold Road, Bottemiller Lane, Weatherford Road, and Baseline (Ione) Rd, as previously evaluated in Council's Final Order on RFA4.
10	Evicting Condition 71 provides in particent part that the contificate holder shall madify as
11	Existing Condition 71 provides, in pertinent part, that the certificate holder shall modify, as
12	road design standards subject to Gilliam County Road Department approval and: (2) State
14	roads, within State road rights-of-way, and in conformity with Oregon Department of
15	Transportation (ODOT) and subject to ODOT approval. Existing Condition 75 provides, in
16	pertinent part, that the certificate holder shall cooperate with the Gilliam County Road
17	Department to ensure that any "unusual damage or wear" to County roads would be repaired
18	by the certificate holder.
19	
20	Based on compliance with the above referenced conditions, the Department recommends that
21	the Council conclude that the proposed RFA5 facility components would be consistent with this
22	policy.
23	
24	Goal 13. Energy Conservation
25	Goal: To conserve energy
20	doui. To conserve energy.
28	Policies:
29	
30	13. Applications for new energy generation facilities, whether public or private, should
31	consider impacts on neighboring properties.
32	
33	This policy establishes that impacts to neighboring properties should be considered during the
34	review of applications for new energy generation facilities. The proposed RFA5 facility
35	modifications would result in splitting of previously approved wind and solar facility
36	components into three site certificates, all within previously approved site boundary area.
37	Therefore, the proposed changes would not impact the Council's previous findings, where the
38	facility design and compliance with site certificate conditions was relied upon to determine
39	consistency with the policy.
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1	III.A.4.2 Directly Applicable State Statutes and Administrative Rules
2	
3	Oregon Revised Statutes
4	
5	ORS 215.283(1)(c) and ORS 215.274 – Associated Transmission Lines Necessary for Public Service
6 7	Transmission lines that most the definition of an "associated transmission line" must consider
/ 0	the requirements of OPS 215 274. If a utility facility percessary for public service is an
0 0	"associated transmission line" as defined in ORS 215 274 and ORS 469 300, the use may be
9 10	established in FELL-zoned land nursuant to ORS 215.274 and ORS 409.500, the use may be
11	
12	ORS 469.300(3) defines "associated transmission lines" as "new transmission lines constructed
13	to connect an energy facility to the first point of junction of such transmission line or lines with
14	either a power distribution system or an interconnected primary transmission system or both
15	or to the Northwest Power Grid," and that definition is incorporated by reference in ORS
16	215.274. Associated transmission lines reviewed under ORS 215.274 are a subset of the
17	transmission lines that could be evaluated as utility facilities necessary for public service under
18	ORS 215.283(1)(c).
19	
20	The proposed alternate 230 kV route would exit east out of the Montague Solar collector
21	substation to a 90-degree turning structure just east of OR 19. From there, it would extend
22	straight north along OR 19 (outside of the road right-of-way) until it reaches the corner of Old
23	Tree Road where it would turn east towards the Montague Wind collector substation. The
24	approved and proposed alternate segment route are presented in Figure 3: Proposed Site
25	Boundary, Solar Micrositing Area and Alternate 230 kV Transmission Line Segment Route below.
26	The Council previously evaluated the 230 kV transmission line as an "associated transmission
27	line" because it would transmit electricity from the facility to BPA's Slatt Substation. The
28	initiation and termination point of the 230 kV transmission line would not change as a result of
29	"accorized transmission line."
3U 21	
37	Gilliam County has not adopted local code provisions to implement OBS 215 274. Therefore
33	the requirements of the statute apply directly to the proposed alternate 230 kV route and the
34	applicable requirements are evaluated below. The proposed alternate 230 kV route and
35	previously approved route segments are represented in Figure 6: Approved and Proposed
36	Alternate 230 kV Route Segments below, where the certificate holder identifies the proposed
37	alternate route as "primary" and the previously approved route as the "alternate."
38	
39	
40	
41	
42	
43	

Oregon Department of Energy

- Legend Approved Phase 1 Site Boundary Approved Phase 1 Micrositing Corridor Approved Phase 2 Site Boundary Approved Phase 2 Micrositing Corridor Residence Residence Buffer (200 feet) 230-kV Transmission Line Corridors Primary 230-kV Transmission Line Route Corridor (0.5 mile) Alternate 230-kV Transmission Line Route Corridor (0.5 mile) Permitted Facility Components Phase 2 Collector Substation Battery Storage System O&M Building
 Temporary Laydown Area --- New Access Road Constructed Facility Components Phase 1 Substation - 230-kV Transmission Line Basemap Features ----- Interstate/Highway - Public Road ---- Other Road ----- Major Railroad Line R288 R273 R380 500 1,000 2,000 VANGRID JACOBS
- 1 Figure 6: Approved and Proposed Alternate 230 kV Route Segments

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Basemap Source: ESRI World Imagery

Montague Wind Power Facility - Proposed Order on Request for Amendment 5 July 30, 2020

1	ORS 215.274(2): An associated transmission line is necessary for public service if an
2	applicant for approval under ORS 215.213 (Uses permitted in exclusive farm use zones in
3	counties that adopted marginal lands system prior to 1993) (1)(c)(B) or 215.283 (Uses
4	permitted in exclusive farm use zones in nonmarginal lands counties) (1)(c)(B) demonstrates
5	to the governing body of a county or its designee that the associated transmission line
6	meets:
7	
8	(a) At least one of the requirements listed in subsection (3) of this section; or
9	(b) The requirements described in subsection (4) of this section.
10	
11	ORS 215.274 requires that the certificate holder demonstrate that the associated transmission
12	line meets the requirements of either ORS 215.274 (3) or (4). As discussed below, Council
13	previously found that the associated transmission line satisfied the requirements of ORS
14	215.274(4).
15	
16	ORS 215.274(3): The governing body of a county or its designee shall approve an application
17	under this section if an applicant demonstrates that the entire route of the associated
18	transmission line meets at least one of the following requirements:
19	
20	(a) The associated transmission line is not located on high-value farmland, as
21	defined in ORS 195.300 (Definitions for ORS 195.300 to 195.336), or on arable
22	land;
23	(b) The associated transmission line is co-located with an existing transmission line;
24	(c) The associated transmission line parallels an existing transmission line corridor
25	with the minimum separation necessary for safety; or
26	(d) The associated transmission line is located within an existing right of way for a
27	linear facility, such as a transmission line, road or railroad, that is located above
28	the surface of the ground.
29	
30	ORS 215.274(3) requires a demonstration that the proposed alternate 230 kV route would not
31	be located on high-value farmland or arable land, co-located or parallel an existing transmission
32	line, or within an existing linear facility right of way. The proposed alternate 230 kV
33	transmission line route would not satisfy any of these requirements.
34	
35	<u>ORS 215.274(4)(a):</u> Except as provided in subsection (3) of this section, the governing body of
36	a county or its designee shall approve an application under this section if, after an
37	evaluation of reasonable alternatives, the applicant demonstrates that the entire route of
38	the associated transmission line meets, subject to paragraphs (b) and (c) of this subsection,
39	two or more of the following factors:
40	
41	ORS 215.2/4(4)(a) requires an evaluation of reasonable alternatives to determine whether the
42	associated transmission line may be sited on land other than EFU-zoned land. The evaluation of

- routes on which the transmission line could be located. Rather, the certificate holder must 1
- 2 consider reasonable alternatives and show that the transmission line must be sited on EFU-
- 3 zoned land in order to provide the service. Council found, in its Final Order on RFA4, that the
- 4 certificate holder's previous evaluation of five routes, including the alternative route currently
- 5 proposed, satisfied ORS 215.274(4)(a). All the previously evaluated routes would be located on EFU zoned land.
- 6 7
- 8 As previously presented in RFA4 Exhibit K, Figure K-3, the site boundary is located entirely 9 within EFU zoned land. Therefore, because the proposed alternate 230 kV transmission route 10 would initiate and terminate at previously approved facility component locations within the site 11 boundary, there is no non-EFU zoned land available between facility components and the 12 interconnection point. The Department therefore recommends that the Council find that the
- 13 certificate holder's previously evaluation of alternatives remains valid for RFA5 and
- 14 demonstrates that no reasonable alternatives that would avoid EFU land exist. However, note
- 15 that ORS 215.274(4) requires both a demonstration that no reasonable alternatives that would
- avoid EFU land exist, and that two or more of the listed factors [ORS 215.274(a)(A) through (E)] 16
- 17 be met, which is evaluated below.
- 18 19

<u>ORS 215.274(4)(a)(A)</u>: Technical and engineering feasibility;

- 20 21 ORS 215.274(4)(a)(A) requires that the certificate holder demonstrate that the proposed 22 alternate 230 kV transmission route must be sited in an EFU zone due to technical and 23 engineering feasibility constraints. The Department interprets this factor as requiring a 24 demonstration that technical or engineering constraints, such as extreme topographic features, 25 cannot be overcome but for facility engineering through EFU-zoned land. Extreme topographic 26 features have not been identified within the site boundary. Therefore, the Department 27 recommends Council find that there are not technical or engineering constraints, such as 28 extreme topographic features, that cannot be overcome but for siting the alternate 230 kV 29 route through EFU zoned land and therefore, ORS 215.274(4)(a)(A) would not be satisfied.
- 30

ORS 215.274(4)(a)(B): The associated transmission line is locationally dependent because 31 32 the associated transmission line must cross high-value farmland, as defined in ORS 195.300 (Definitions for ORS 195.300 to 195.336), or arable land to achieve a reasonably 33 direct route or to meet unique geographical needs that cannot be satisfied on other 34 35 lands;

36

37 ORS 215.274(4)(a)(B) requires a demonstration that the alternate 230 kV transmission route must cross high value farmland or arable land to achieve a reasonably direct route and 38 therefore is locationally dependent. As presented in Figure 6: Approved and Proposed Alternate 39

- 230 kV Route Segments above, the proposed alternate 230 kV transmission route would be 40
- 41 located on private property, adjacent to but outside of public road rights-of-way for OR 19 and
- 42 Old Tree Lane. As presented in Figures 3 and 4 of this order, the proposed alternate 230 kV
- 43 transmission route is surrounded by interspersed areas of high-value farmland, pursuant to ORS

195.300(10)(f)(c), and arable land comprised of Class 3 and 4 soils. Because there is no 1 2 reasonable route to interconnect the approved Montague Solar collector substation (previously 3 referred to as Phase 2 collector substation) to the existing Montague Wind collector substation 4 (previously referred to as Phase 1 collector substation) without traversing high value farmland 5 and arable land, the Department recommends Council find that the proposed alternate 230 kV 6 transmission route must cross high value farmland and arable land to achieve a reasonably 7 direct route, and that the alternate route is therefore "locationally dependent" and would 8 satisfy ORS 215.274(4)(a)(B).

9 10

ORS 215.274(4)(a)(C): Lack of an available existing right of way for a linear facility, such as a transmission line, road or railroad, that is located above the surface of the ground;

11 12

13 ORS 215.274(4)(a)(C) requires a demonstration of a lack of available existing linear facility 14 rights-of-way for which the transmission line could be located. Based upon the certificate 15 holder's assessment of ORS 215.274(4)(a)(C) in RFA4, the availability of existing public road 16 rights-of-way was evaluated. The certificate holder previously described that the existing OR 19 17 road right-of-way was not available for co-location of the transmission line because it contains 18 an existing pipeline on the east side, and topographic constraints include ditches with steep 19 rises to adjacent fields on both sides of OR 19, which eliminate usable space within the right of 20 way and make it difficult to locate the poles within the right-of-way while also setback for 21 traffic safety. While this analysis was previously relied upon to support the evaluation of the 22 approved 230 kV transmission line route, the Department recommends Council find that the 23 analysis remains valid for the proposed alternate 230 kV transmission route. 24 25 Based on the limitation of feasibility of use of the existing or expanded road right-of-way, as 26 described above, the Department recommends the Council find that the proposed alternate 27 230 kV transmission route would satisfy ORS 215.274(4)(a)(C). 28 29 ORS 215.274(4)(a)(D): Public health and safety; or 30 31 ORS 215.274(4)(a)(D) requires a demonstration that the proposed alternate transmission line

32 route must be sited on EFU-zoned land to minimize potential impacts to public health and safety. As described under the evaluation of ORS 215.274(4)(a) above, non-EFU zoned land 33 34 does not exist within the analysis area. Therefore, the Department recommends Council find 35 that the proposed alternate 230 kV transmission route would not satisfy ORS 215.274(4)(a)(D). 36 37

38

<u>ORS 215.274(4)(a)(E)</u>: Other requirements of state or federal agencies.

ORS 215.274(4)(a)(E) requires a demonstration that the proposed alternate 230 kV transmission 39

40 route must be sited in an EFU zone due to other state or federal requirements. Other

41 requirements of state or federal agencies has not been identified. Therefore, the Department recommends Council find that the proposed alternate 230 kV transmission route would not
 satisfy ORS 215.274(4)(a)(E).

3

4 <u>ORS 215.274(4)(b):</u> The applicant shall present findings to the governing body of the county 5 or its designee on how the applicant will mitigate and minimize the impacts, if any, of the 6 associated transmission line on surrounding lands devoted to farm use in order to prevent a 7 significant change in accepted farm practices or a significant increase in the cost of farm 8 practices on the surrounding farmland.

9

ORS 215.274(4)(b) requires a demonstration that the proposed alternate 230 kV transmission route would not result in a significant change in accepted farm practices or a significant increase in cost of farm practices on surrounding land. Impacts from the proposed alternate route would be minimized by paralleling existing roads, siting transmission structures on the perimeter of fields and would not result in permanent roads.

15

16 To ensure that potential impacts to farm practices and the cost of farm practices on

17 surrounding lands is minimized during construction, Council previously imposed Conditions 38

and 39 requiring that the certificate holder design and construct the facility using the minimum

19 land use necessary, and that the certificate holder consult with area landowners and lessees to

identify and implement measures to reduce or avoid adverse impacts to farm practices and

21 farming cost. Based on compliance with previously imposed conditions and the minimal

22 amount of permanent impacts to EFU-zoned land, the Department recommends that the

23 Council find that the proposed alternate 230 kV transmission route would not result in a

significant change to accepted farm practices or significantly increase costs of farm practices on

surrounding land. Therefore, the Department recommends Council find that the proposed

alternate 230 kV transmission route would satisfy 215.274(4)(b).

27

28 <u>ORS 215.274(4)(c):</u> The governing body of a county or its designee may consider costs
 29 associated with any of the factors listed in paragraph (a) of this subsection, but
 30 consideration of cost may not be the only consideration in determining whether the

- 31 associated transmission line is necessary for public service.
- 32

ORS 215.274(4)(c) allows for consideration of costs in determining whether the associated 33 transmission line is necessary for public service. The certificate holder indicates that, based on 34 35 its previous review of four alternative routes and the increased length of those routes, 36 construction costs would increase. The Department recommends that the Council find that the 37 certificate holder's previous analysis of reasonable alternative in RFA4 remains valid for RFA5 and would continue to satisfy ORS 215.274(4)(a); and, that the alternative route is locationally 38 dependent under ORS 215.274(4)(a)(B) and that there is a lack of available existing rights-of-39 way for a linear facility under ORS 215.274(4)(a)(C). As such, the Department recommends that 40 41 the Council find that the proposed 230 kV transmission route is "necessary for public service." 42

43

1	Oregon Administrative Rules
2	
3	OAR 660-033-0130-(38) — Standards for Approval for Photovoltaic Solar Power Generation
4	Facility in Exclusive Farm Use Zones
5	
6	(a) For high-value farmland described at ORS 195.300(10), a photovoltaic solar power
7	aeneration facility shall not use, occupy, or cover more than 12 acres unless:
8	(A) The provisions of paragraph (h)(H) are satisfied: or
9	(B) A county adopts, and an applicant satisfies, land use provisions authorizing
10	projects subject to a dual-use development plan. Land use provisions adopted by
11	a county pursuant to this paragraph may not allow a project in excess of 20
12	acres. Land use provisions adopted by the county must require sufficient
13	assurances that the farm use element of the dual-use development plan is
14	established and maintained so long as the photovoltaic solar power generation
15	facility is operational or components of the facility remain on site. The provisions
16	of this subsection are repealed on January 1, 2022.
17	·,····, ···, ···, ···, ···, ···, ···,
18	The Gilliam County Zoning Ordinance has not been updated to incorporate Oregon
19	Administrative Rule 660-033-0130(38) and therefore OAR 660-033-0130(38) is an
20	administrative rule that applies directly. OAR 660-033-0130(38)(g) restricts a photovoltaic solar
21	power generation facility from using, occupying, or covering more than 12 acres of high value
22	farmland unless the provisions of OAR 660-033-0130(38)(h)(H) are satisfied or the County
23	adopts a dual-use development plan, which would then allow use, occupation or coverage on
24	no more than 20 acres of high-value farmland. In RFA5, the certificate holder represents that
25	the proposed expansion of the solar micrositing area would use, occupy or cover more than 12
26	acres of high-value farmland, and therefore these provisions are applicable. The evaluation of
27	OAR 660-033-0130(h)(H), as required under OAR 660-033-0130(38)(g)(A), is presented below.
28	
29	(h)(H) A photovoltaic solar power generation facility may be sited on more than 12 acres
30	of high-value farmland described in ORS 195.300(10)(f)(C) without taking an exception
31	pursuant to ORS 197.732 and OAR chapter 660, division 4, provided the land:
32	(i) Is not located within the boundaries of an irrigation district;
33	(ii) Is not at the time of the facility's establishment, and was not at any time during the
34	20 years immediately preceding the facility's establishment, the place of use of a
35	water right permit, certificate, decree, transfer order or ground water registration
36	authorizing the use of water for the purpose of irrigation;
37	(iii) Is located within the service area of an electric utility described in ORS 469A.052(2);
38	(iv) Does not exceed the acreage the electric utility reasonably anticipates to be
39	necessary to achieve the applicable renewable portfolio standard described in ORS
40	469A.052(3); and
41	(v) Does not qualify as high-value farmland under any other provision of law; or
42	

1 OAR 660-033-0130(38)(g)(A) requires an evaluation of OAR 660-033-0130(38)(h)(H), where -2 (h)(H) allows consideration of other factors in lieu of a goal exception, including whether the 3 site of solar facility components would meet any of the following: not within the boundaries of an irrigation district; within last 20 years, not within a place of use of a water right permit, 4 certificate, decree, or transfer; within the service area of an electric utility; would not exceed 5 6 the acreage necessary to achieve the renewable portfolio standard; and, does not qualify as 7 high-value farmland under any provision of law. Based on review of RFA5 Attachment 4 8 Landowner Letters, which includes email correspondence from Oregon Water Resources 9 Department staff Jerry Sauter, the proposed expanded solar micrositing area would be located within a location where, within the last 20 years, there was a place of use water right (expired 10 in 2006), Therefore, the proposed RFA5 facility modifications would not satisfy the -(h)(H) 11 12 requirements and a goal exception is required. 13 14 OAR 660-033-0130(38)(g)(A) also allows for consideration of a dual-use development plan 15 adopted by the county. The certificate holder confirms that a dual-use development plan is not proposed and asserts that the provision is not applicable. 16 17 18 (h) The following criteria must be satisfied in order to approve a photovoltaic solar power generation facility on high-value farmland described at ORS 195.300(10). 19 (A) The proposed photovoltaic solar power generation facility will not create 20 21 unnecessary negative impacts on agricultural operations conducted on any 22 portion of the subject property not occupied by project components. Negative 23 impacts could include, but are not limited to, the unnecessary construction of 24 roads dividing a field or multiple fields in such a way that creates small or 25 isolated pieces of property that are more difficult to farm, and placing photovoltaic solar power generation facility project components on lands in a 26 manner that could disrupt common and accepted farming practices; 27 28 (B) The presence of a photovoltaic solar power generation facility will not result in 29 unnecessary soil erosion or loss that could limit agricultural productivity on the subject property. This provision may be satisfied by the submittal and county 30 approval of a soil and erosion control plan prepared by an adequately qualified 31 32 individual, showing how unnecessary soil erosion will be avoided or remedied. The approved plan shall be attached to the decision as a condition of approval; 33 (C) Construction or maintenance activities will not result in unnecessary soil 34 35 compaction that reduces the productivity of soil for crop production. This 36 provision may be satisfied by the submittal and county approval of a plan 37 prepared by an adequately qualified individual, showing how unnecessary soil compaction will be avoided or remedied in a timely manner through deep soil 38 decompaction or other appropriate practices. The approved plan shall be 39 attached to the decision as a condition of approval; 40 41 (D) Construction or maintenance activities will not result in the unabated introduction or spread of noxious weeds and other undesirable weed species. This 42

provision may be satisfied by the submittal and county approval of a weed

43

1	control plan prepared by an adequately qualified individual that includes a long-
2	term maintenance agreement. The approved plan shall be attached to the
3	decision as a condition of approval;
4	(E) Except for electrical cable collection systems connecting the photovoltaic solar
5	generation facility to a transmission line, the project is not located on those high-
6	value farmland soils listed in OAR 660-033-0020(8)(a);
7	(F) The project is not located on those high-value farmland soils listed in OAR 660-
8	033-0020(8)(b)-(e) or arable soils unless it can be demonstrated that:
9	(i) Non high-value farmland soils are not available on the subject tract;
10	(ii) Siting the project on non high-value farmland soils present on the subject
11	tract would significantly reduce the project's ability to operate successfully; or
12	(iii) The proposed site is better suited to allow continuation of an existing
13	commercial farm or ranching operation on the subject tract than other
14	possible sites also located on the subject tract, including those comprised of
15	non high-value farmland soils; and
16	(G) A study area consisting of lands zoned for exclusive farm use located within one
17	mile measured from the center of the proposed project shall be established and:
18	(H) If fewer than 48 acres of photovoltaic solar power generation facilities have been
19	constructed or received land use approvals and obtained building permits within
20	the study area, no further action is necessary.
21	(i) When at least 48 acres of photovoltaic solar power generation facilities have
22	been constructed or received land use approvals and obtained building
23	permits, either as a single project or as multiple facilities within the study
24	area, the local government or its designate must find that the photovoltaic
25	solar power generation facility will not materially alter the stability of the
26	overall land use pattern of the area. The stability of the land use pattern will
27	be materially altered if the overall effect of existing and potential
28	photovoltaic solar power generation facilities will make it more difficult for
29	the existing farms and ranches in the area to continue operation due to
30	diminished opportunities to expand, purchase or lease farmland, acquire
31	water rights, or diminish the number of tracts or acreage in farm use in a
32	manner that will destabilize the overall character of the study area.
33	
34	OAR 660-033-0130(38)(h)(A) – (D) requires a demonstration that the facility, with proposed
35	RFA5 modifications, would not create unnecessary negative impacts to agricultural operations,
36	soil erosion or loss, soil compaction, or the unabated introduction or spread of noxious weeds.
37	
38	<u>OAR 660-033-0130(38)(h)(A): Unnecessary Negative Impacts to Agricultural Operations</u>
39	
40	OAR 660-033-0130(38)(h)(A) requires a demonstration that the proposed expansion of solar
41	micrositing area would not create unnecessary negative impacts to agricultural operations,
42	such as dividing of fields. The facility, with proposed RFA5 facility modifications, would result in
43	removal of up to 2,725 acres of land currently used for agriculture (dryland wheat cultivation)

1 2 3 4 5	by four landowners. Of the property of the four landowners, three landowners would maintain other land usable for dryland wheat cultivation, which would not be impacted by the proposed changes. In addition, the proposed changes in facility component layout would not result in field division and would include design measures allowing for farm use access through the site and gate-entry points that are wide enough for pass-through of farm equipment.
0 7	The proposed expansion of solar micrositing area would preclude the use of land for
8	agricultural purposes in areas where solar equipment and perimeter fencing is located, and
10	ability for existing landowners to conduct agricultural operations. In REA5 Attachment 4 the
11	certificate holder provides landowner letters from Weedman. Weatherford and Holtz, which
12	confirm that their existing agricultural operations would not be significantly impacted by the
13	proposed expansion of solar micrositing area.
14	
15	As described in the evaluation of GCZO Section 4.020(H), Council previously imposed several
16	conditions that would minimize potential impacts to accepted farm practices within the
17	surrounding area. Previously imposed conditions are summarized below:
18	
19	 Condition 38 requires that, during construction and operation, the certificate holder
20	consult with area landowners and lessees and implement measures to reduce or
21	avoid adverse impacts to farm practices
22	• Condition 39 requires that the certificate holder design and construct the facility to
23	minimize impacts to farm practices
24 25	 Condition 43 requires that, during construction and operation, a Weed Control Plan be implemented
26	 Condition 73 requires that, during construction, traffic control measures be
27	implemented and notification of activities and schedule be provided to adjacent
28	landowners
29	 Condition 74 requires that, during construction, County roads not be used for
30	equipment and machinery parking
31	 Condition 80 requires that, during construction, erosion and sediment control
32	measures be implemented to minimize erosion and sediment impacts to adjacent
33	land use
34	Condition 81 requires that, during construction, truck traffic be limited to improved
35	road surfaces, to the extent practicable, to minimize unnecessary soil compaction
36	 Condition 82 requires that, during construction, best management practices (such as
37	watering) be implemented for dust control
38	Condition 92 requires that, following completion of construction, temporarily
39	impacted agricultural areas be revegetated
40	Paced on compliance with providually impaced conditions, and the evidence provided in the
4⊥ 42	based on compliance with previously imposed conditions, and the evidence provided in the
42	iandowner retters, the Department recomments council into that the facility, with proposed

Montague Wind Power Facility - Proposed Order on Request for Amendment 5

RFA5 facility modifications, would not create unnecessary negative impacts on agricultural 1 2 operations conducted on any portion of the subject property not occupied by facility 3 components, and therefore satisfies the requirements under OAR 660-033-0130(38)(h)(A).

4 5

OAR 660-033-0130(38)(h)(B) Unnecessary Soil Erosion or Loss

6 7 OAR 660-033-0130(38)(h)(B) requires the certificate holder to demonstrate that the facility, 8 with proposed RFA5 modifications, would not "result in unnecessary soil erosion or loss that 9 could limit agricultural productivity on the subject property" and states that the "provision may 10 be satisfied by submittal and county approval of a soil and erosion control plan prepared by an adequately qualified individual, showing how unnecessary soil erosion will be avoided or 11 12 remedied and how topsoil will be stripped, stockpiled and clearly marked."

13

14 As necessary, to satisfy this provision, the certificate holder must demonstrate compliance with 15 the Council's Soil Protection standard; current Condition 80 of the Site Certificate requires the 16 certificate holder to construct the facility in accordance with an Erosion and Sediment Control 17 Plan, which must be approved by the Oregon Department of Environmental Quality (DEQ), and 18 a National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge General 19 Permit 1200-C. Furthermore, Condition 92 requires the Certificate Holder to comply with a 20 Revegetation Plan. These plans include best management practices to be implemented during 21 facility construction and operation, and are designed to reduce and minimize unnecessary soil 22 erosion or loss that could limit agricultural productivity within the proposed facility site and on adjacent EFU zoned land.

23 24

25 Based on compliance with previously imposed conditions, the Department recommends

26 Council find that the facility, with proposed RFA5 modifications, would not result in

27 unnecessary soil erosion or loss that could limit agricultural productivity, and therefore satisfies

28 the requirements under OAR 660-033-0130(38)(h)(B).

- 29
- 30

OAR 660-033-0130(38)(h)(C) Unnecessary Soil Compaction

31

32 OAR 660-033-0130(38)(h)(C) requires the Certificate Holder to demonstrate that the facility, with proposed RFA5 modifications, would not "result in unnecessary soil compaction that 33 reduces the productivity of soil for crop production." Soil compaction would be limited by the 34 35 certificate holder's use of existing or constructed access roads, which would limit potential 36 impacts from driving across or through productive soils used for crop production; specifically, 37 Condition 81 mandates that truck traffic be limited to the extent practicable to improved road 38 surfaces to avoid compaction. The Council stated in the Final Order on the ASC, that the facility "will not result in unnecessary soil erosion." Although the certificate holder proposes to expand 39 the solar micrositing area and construct and operate an additional related or supporting facility 40 (switching station) this would not alter the certificate holder's ability to comply with conditions 41 42 that require minimization of soil compaction. As such, the Department recommends that, based 43 upon compliance with existing site certificate conditions, the Council conclude that the facility,

with proposed RFA5 facility modifications, would not result in unnecessary soil compaction, and
 would satisfy the requirements under OAR 660-033-0130(38)(h)(C).

- 3
- 4

OAR 660-033-0130(38)(h)(D) Unnecessary Spread of Noxious Weeds

5 6 OAR 660-033-0130(38)(g)(D) requires the certificate holder to demonstrate that the facility, 7 with proposed RFA5 modifications, would not result in the "unabated introduction or spread of 8 noxious weeds and other undesirable weed species." The certificate holder must comply with 9 Condition 43, which requires that it implement a weed control plan, which must be approved 10 by the Gilliam County Weed Control Officer. To support this evaluation, the certificate holder provides a draft Weed Control Plan (see Attachment F of this order), to be finalized prior to 11 12 construction of the Montague Solar and Oregon Trail Solar Facilities. The draft plan includes 13 pre-disturbance treatment, weed control measures, monitoring plan, and an agency 14 consultation process. Based upon the components of the draft plan and compliance with 15 Condition 43, the Department recommends that the Council find that the facility, with 16 proposed RFA5 modifications, would not result in unabated introduction or spread of noxious 17 weeds or other undesirable weed species, and would satisfy the requirements under OAR 660-18 033-0130(38)(h)(D). 19 20 OAR 660-033-0130(38)(h)(E) 21 22 OAR 660-033-0130(38)(h)(E) requires that the certificate holder demonstrate that, with the 23 exception of grid interconnection electrical collection systems, the proposed expansion of solar 24 micrositing area would not be located on high-value farmland soils. Pursuant to OAR 660-033-25 0020(8)(a), high-value farmland soils are defined as irrigated and classified prime, unique, Class 26 I or II soils; or, not irrigated and classified prime, unique, Class I or Class II soils. As presented in 27 RFA5, based on review of Natural Resource Conservation Service's 2020 soil mapping – represented in RFA5 Table 8, soil classification within the proposed expanded solar micrositing 28 29 area includes Class III, IV and VI – which are not considered high-value farmland soils. Therefore, the Department recommends Council find that the facility, with proposed RFA5 30

modifications, would satisfy the requirements under OAR 660-033-0130(38)(h)(E). 31 32 33 (F) The project is not located on those high-value farmland soils listed in OAR 660-34 033-0020(8)(b)-(e) or arable soils unless it can be demonstrated that: 35 (i) Non high-value farmland soils are not available on the subject tract; 36 (ii) Siting the project on non high-value farmland soils present on the subject 37 tract would significantly reduce the project's ability to operate successfully; or (iii) The proposed site is better suited to allow continuation of an existing 38 39 commercial farm or ranching operation on the subject tract than other 40 possible sites also located on the subject tract, including those comprised of 41 non high-value farmland soils; and 42

1 OAR 660-033-0130(38)(h)(F) requires the certificate holder to demonstrate that the proposed 2 expansion of solar micrositing area would not be located on high-value farmland soils or arable 3 soils unless: 1) non high-value farmland soils are not available on the subject tract; 2) siting the 4 project on non high-value farmland soils, if present, would significantly impact the project's ability to operate; or 3) the site is better suited than other possible sites because it would allow 5 continued operation of existing farmland.²⁸ 6 7 8 Based on review of OAR 660-033-0020(8)(b)-(e) definitions of high-value farmland soils, as 9 applicable to the location of the proposed expanded solar micrositing area, high-value farmland soils include irrigated and classified prime, unique, Class I or II soils; or, not irrigated and 10 classified prime, unique, Class I or Class II soils. Arable soils are defined as soils suitable for 11 cultivation, excluding high-value farmland soils.²⁹ As presented in RFA5, based on review of 12 13 Natural Resource Conservation Service's 2020 soil mapping – represented in RFA5 Table 8, soil 14 classification within the proposed expanded solar micrositing area include Class III, IV and VI – 15 which are considered arable soils, but not high-value farmland soils.³⁰ While OAR 660-033-0130(38)(h)(F) applies to projects that could impact both high-value farmland soils and arable 16 17 soils, the criteria identified in -(h)(F)(i)-(iii) are specific to projects that would impact high-value 18 farmland soils, which are not present within the proposed expanded solar micrositing area. The Department refers to the analysis under OAR 660-033-010(38)(i) to support review of 19 20 applicable criteria for impacts to arable soil. 21 (G) A study area consisting of lands zoned for exclusive farm use located within one 22 23 mile measured from the center of the proposed project shall be established and: (i) If fewer than 48 acres of photovoltaic solar power generation facilities have 24 25 been constructed or received land use approvals and obtained building 26 permits within the study area, no further action is necessary. 27 (ii) When at least 48 acres of photovoltaic solar power generation facilities have been constructed or received land use approvals and obtained building 28 29 permits, either as a single project or as multiple facilities within the study 30 area, the local government or its designate must find that the photovoltaic solar power generation facility will not materially alter the stability of the 31 32 overall land use pattern of the area. The stability of the land use pattern will be materially altered if the overall effect of existing and potential 33 photovoltaic solar power generation facilities will make it more difficult for 34 35 the existing farms and ranches in the area to continue operation due to

²⁸ As defined in OAR 660-033-0020, "tract" means one or more contiguous lots or parcels under the same ownership. The Department notes that because OAR 660-033-0130(38)(g)(A) requires an evaluation of soil conditions on the "subject tract," that such an evaluation may require the review of areas outside of the proposed site boundary area.

²⁹ OAR 660-033-0330(38)(b)

³⁰ In RFA5, the certificate holder evaluates OAR 660-033-0330(38)(h)(F), interpreting high-value farmland under ORS 195.300(10)(f)(C) as equivalent to high-value farmland soils under OAR 345-033-0020(8), which the Department disagrees.

1 2 3	diminished opportunities to expand, purchase or lease farmland, acquire water rights, or diminish the number of tracts or acreage in farm use in a manner that will destabilize the overall character of the study area.
4 5 6 7 8	OAR 660-033-0130(38)(h)(G) requires an evaluation of photovoltaic solar power generation facility development within 1-mile of the site. Based on review of aerial imagery and multiple site visits in 2019/2020, the Department confirms that there are fewer than 48 acres of other photovoltaic solar power generation facilities within 1-mile of the proposed expanded solar
9	micrositing area. Therefore, no further action is necessary.
10	(i) For graphs lands, a photocoltaic solar power generation facility shall not use assume or
12	(i) To utuble tunus, a photovoltaic solar power generation jucinty shall not use, occupy, or cover more than 20 acres. The governing body or its designate must find that the
13	following criteria are satisfied in order to approve a photovoltaic solar power generation
14	facility on arable land.
15	
16	(A) The project is not located on those high-value farmland soils listed in OAR 660-
17	033-0020(8)(a);
18	(B) The project is not located on those high-value farmland soils listed in OAR 660-
19	033-0020(8)(b)-(e) or arable soils unless it can be demonstrated that:
20	i. Nonarable soils are not available on the subject tract;
21	ii. Siting the project on nonarable soils present on the subject tract would
22	significantly reduce the project's ability to operate successfully; or
23	III. The proposed site is better suited to dilow continuation of an existing
24 25	commercial farm of ranching operation on the subject tract than other
25 26	possible sites also located on the subject tract, including those comprised of nongraphe soils:
20	(C) No more than 12 acres of the project will be sited on high-value farmland soils
28	described at ORS 195.300(10):
29	
30	OAR 660-033-0130(38)(i)(A)-(C) restricts a photovoltaic solar power generation facility from
31	occupying more than 20 acres of arable land and requires the following criteria to be met: 1)
32	the project is not located on high-value farmland soils listed in OAR 660-033-0020(8)(a); 2)
33	facility is not located on high-value farmland soils or arable soils unless i) nonarable soils are not
34	available on the subject tract; ii) siting facility on nonarable soils on subject tract would
35	significantly increase cost of project operability; or iii) proposed site is better suited to provide
36	continuation of farming on subject tract; and 3) no more than 12 acres of high value farmland
37	soils would be precluded by the project.
38	
39	Ine proposed expanded solar micrositing area would use, occupy or cover more than 20 acres
40 /11	Or arable rand and therefore would not satisfy OAK 660-033-0130(38)(1) and would require a
41 42	0130(38)(i)(A)-(C) as presented below
43	

- 1 As described in RFA5 and in this order, based on NRCS soil classification, there are no high-
- 2 value farmland soils present within the proposed expanded solar micrositing corridor and
- 3 therefore the proposed solar micrositing area would satisfy OAR 660-033-0130(38)(i)(A) and
- 4 (C). The proposed solar micrositing area would be located on arable soils and therefore is
- 5 required to demonstrate compliance with OAR 660-033-0130(38)(i)(B).
- 6 7
- Availability of Nonarable Soils on Subject Tract (OAR 660-033-0130(38)(i)(B)(i))
- 8
- 9 In RF55, the certificate holder provides a summary of NRCS soil classification by taxlot within 10 the subject tract (see Figure 4: Proposed Solar Micrositing Expansion Areas, High-Value
- the subject tract (see Figure 4: Proposed Solar Micrositing Expansion Areas, Hig
 Farmland and Arable Land), as summarized below:
- Tax lot 01N21E0000-01900 is the Athearn property and is comprised entirely of Class 3 soils.
- Tax lot 01N21E0000-00804 makes up the western portion of the Holtz tract and is
 comprised entirely of Class 3 soils
- Tax lot 01N21E0000-00806 makes up the eastern portion of the Holtz tract and is
 comprised entirely of Class 3 soils
- Tax lot 01N21E0000-00805 is the Weatherford property and is comprised entirely of
 Class 3 soils
- Tax lot 01N22E0000-01900 is located in the northeast portion of the Weedman tract
 and comprises Class 3, Class 4, Class 6, and Class 7 soils, with the majority of the lot
 Class 3 and 4.
- Tax lot 01N21E0000-02100 is located in the center of the Weedman tract on the
 eastside of OR 19 and is predominately Class 3 soils, with a small amount of Class 4 and
 6 soils (and minimal amount of Class 7 soils)
- Tax lot 01S21E0000-00100 is located on the south end of the Weedman tract and east of Baseline Road and contains entirely Class 3 soil (and minimal amount of Class 7).
- Tax lot 01N21E0000-02100 is located in the center of the Weedman tract on the west
 side of OR 19 and south of Bottemiller Lane and contains Class 3 soils with a small
 amount of Class 7 (and de minimis amounts of Class 6).
- Tax lot 01N21E0000-01500 is located in the western portion of the Weedman tract; this tax lot is predominately Class 3 but interspersed with Class 4, 6, and 7 soils.
- 33
- As summarized above, within the subject tracts, soils are predominately Class 3 and 4, with
- approximately 1,289 acres of nonarable soil (NRSC Class 6 and 7), as presented in Figure 4:
- 36 Proposed Solar Micrositing Expansion Areas, High-Value Farmland, and Arable Land of this
- 37 order, distributed throughout the periphery of the tracts (see RFA5 Table 7).³¹ The certificate
- 38 holder describes that nonarable soils comprise approximately 13 percent of the acreage within

³¹ As defined in OAR 660-033-0020, "tract" means one or more contiguous lots or parcels under the same ownership. The Department notes that because OAR 660-033-0130(38)(g)(A) requires an evaluation of soil conditions on the "subject tract," that such an evaluation may require the review of areas outside of the proposed site boundary area.

0130(38)(i)(B)(i).

- 1 the tracts but are located below plateaus and ridgelines dissected by small gullies, which could
- 2 not accommodate solar equipment. Because nonarable soils are available within the subject
- 3 tract, the proposed expansion of solar micrositing area would not satisfy OAR 660-033-
- 4 5
- Siting of Facility Components on Nonarable Soils would Significant Increase Cost (OAR 660-033 0130(38)(i)(B)(ii))
- 8
- 9 OAR 660-033-0130(38)(i)(B)(ii) requires an evaluation of the cost of siting solar facility
- 10 components on nonarable soils. As presented in Figure 4: *Proposed Solar Micrositing Expansion*
- 11 Areas, High-Value Farmland, and Arable Land above, the available nonarable soils are limited
- and dispersed in patches in opposite areas within the subject tracts. In RFA5, the certificate
- 13 holder represents that expansion of the solar micrositing area by approximately 1,500 acres, as
- 14 proposed, attempting to use nonarable soils could spread previously approved facility
- components across thousands of acres and require significantly more miles of cable to connect
- 16 the panels and convey the power back to the approved collector substation. Under this
- 17 scenario, the solar array would be spread out into suboptimal layouts and could not operate
- efficiently. This scenario would conflict with the intent of OAR 660-033-0130(38)(h)(A) and
- 19 would create small or isolated pieces of property between solar arrays that are more difficult
- to farm. For these reasons, siting the proposed expansion of solar micrositing area on
- 21 nonarable soils would significantly impact the ability of the facility, with proposed RFA5
- 22 modifications, to produce the needed solar generation. The Department recommends Council
- find that the facility, with proposed RFA5 modifications, would satisfy OAR 660-033-
- 24 0130(38)(i)(B)(ii).
- 25
- 26 Proposed Site is Better Suited to Provide a Continuation of Farming (OAR 660-033-
- 27 0130(38)(i)(B)(iii))
- 28
- 29 OAR 660-033-0130(38)(i)(B)(iii) requires an evaluation of the solar facility site's suitability for providing continuation of farming activities, compared to other sites on nonarable soils within 30 the subject tract. In RFA5, the certificate holder describes that the proposed expanded solar 31 32 micrositing area is better suited than other areas of nonarable soils on the subject tract because it provides direct access from Bottemiller Lane, OR 19 and Weatherford Road, limiting 33 the need for new access roads. In addition, because of Council's previous approval of solar 34 35 photovoltaic energy generation equipment within a solar micrositing area, expanding the 36 micrositing area adjacent to these areas is optimal for co-location, minimizing impacts and 37 infrastructure. The proposed expanded solar micrositing area would provide farm and equipment access through the site and would not be expected to negatively impact existing 38 agricultural practices within the surrounding area. Therefore, the Department recommends 39
- 40 Council find that the facility, with proposed RFA5 modifications, would satisfy OAR 660-033-
- 41 0130(38)(i)(B)(iii).
- 42

1	
2	(D) A study area consisting of lands zoned for exclusive farm use located within one
3	mile measured from the center of the proposed project shall be established and:
4	i. If fewer than 80 acres of photovoltaic solar power generation facilities have
5	been constructed or received land use approvals and obtained building
6	permits within the study area no further action is necessary.
7	ii. When at least 80 acres of photovoltaic solar power generation facilities have
8	been constructed or received land use approvals and obtained building
9	permits_either as a single project or as multiple facilities, within the study
10	area the local government or its designate must find that the photovoltaic
11	solar power generation facility will not materially alter the stability of the
12	overall land use pattern of the area. The stability of the land use pattern will
13	be materially altered if the overall effect of existing and potential
14	photovoltaic solar power generation facilities will make it more difficult for
15	the existing farms and ranches in the area to continue operation due to
16	diminished opportunities to expand, purchase or lease farmland, acquire
17	water rights or diminish the number of tracts or acreage in farm use in a
18	manner that will destabilize the overall character of the study
19	area; and
20	
21	OAR 660-033-0130(38)(i)(D) requires an evaluation of photovoltaic solar power generation
22	facility development within 1-mile of the proposed project site. Based on review of aerial
23	imagery and multiple site visits in 2019/2020, the Department confirms that there are fewer
24	than 80 acres of other photovoltaic solar power generation facilities within 1-mile of the
25	proposed facility site. Therefore, no further action is necessary.
26	
27	(E) The requirements of OAR 660-033-0130(38)(h)(A), (B), (C) and (D) are
28	satisfied.
29	
30	OAR 660-033-0130(38)(I)(E) requires Council to find that OAR 660-033-0130(38)(h)(A)-(D) are
31	satisfied. As presented in this section, the Department recommends Council find that the
32	facility, with proposed RFA5 modifications, would satisfy the requirements of OAR 660-033-
33	0130(38)(h)(A)-(D).
34	
35	(K) An exception to the acreage and soil thresholds in subsections (g), (n), (i), and (j) of this
36	section may be taken pursuant to ORS 197.732 and OAR chapter 660, alvision 4.
3/	OAD(CC0.022.0120/20)/k) establishes that for projects that would be sited on 12 acros or more
38	of high value formland or 20 acres of arable land, an exception is required pursuant to OPS
39	107 722 and OAP Chapter 660, division 4. The proposed expanded solar micrositing area would
40 /1	use occupy or cover more than 12 acres of high value formland and more than 20 acres of
41 12	ase, occupy of cover more than 12 acres of mgn-value farmiand and more than 20 acres of as a second and from agricultural use. The Department's assessment of the applicant's Coal 2
42	arable land from agricultural use. The Department's assessment of the applicant's doal 5

- exception request is evaluated in Section III.A.4,2 *Goal 3 Exception* of this order below and
 recommends that the Council find that an exception to Goal 3 is justified.
- 3 4

5

6

7

8

(I) The county governing body or its designate shall require as a condition of approval for a photovoltaic solar power generation facility, that the project owner sign and record in the deed records for the county a document binding the project owner and the project owner's successors in interest, prohibiting them from pursuing a claim for relief or cause of action alleging injury from farming or forest practices as defined in ORS 30.930(2) and (4).

9 10

OAR 660-033-0130(38)(I) requires the governing body to impose a condition that the 11 12 certificate holder sign and record in the deed records for the County a document binding the 13 applicant and the applicant owner's successors in interest, prohibiting them from pursuing a 14 claim for relief or cause of action alleging injury from farming. Condition 41 requires the 15 certificate holder to record a Covenant Not to Sue landowners, which would be consistent with 16 and would satisfy the requirements of this provision. Based on compliance with the existing 17 condition, the Department recommends that Council conclude the requirements under OAR 18 660-033-0130(38)(k) would be satisfied.

19

(m) Nothing in this section shall prevent a county from requiring a bond or other security
 from a developer or otherwise imposing on a developer the responsibility for retiring the
 photovoltaic solar power generation facility.

23

OAR 660-033-0130(38)(m) allows for the governing body to require a bond or letter of credit
for the amount necessary to retire the facility during decommissioning. Existing site certificate
Condition 32 requires the certificate holder to obtain a bond or letter of credit, before
beginning construction. Therefore, based upon existing Condition 32, in conjunction with the
Department's recommended amendment to Condition 32 contained within Section III.A.5., *Retirement and Financial Assurance* of this order, the Department recommends that Council
conclude that the requirements under OAR 660-033-0130(38)(j) would be satisfied.

32 III.A.4.3 Goal 3 Exception

33

34 The proposed solar micrositing area would be sited on more than 12 acres of high-value 35 farmland as defined in ORS 195.300(10), and could use, occupy or cover more than 12 acres of 36 high value farmland and more than 20 acres of arable land from use as a commercial 37 agricultural enterprise. Therefore, the proposed expanded solar micrositing area would not comply with OAR 660-033-0130(38)(f) and -(38)(g) unless a goal exception is taken. Pursuant to 38 ORS 469.504(1)(b)(B), non-compliance with a statewide planning goal requires a determination 39 40 by the Council that an exception to Goal 3 is warranted under ORS 469.504(2) and the 41 implementing rule at OAR 345-022-0030(4).

42

Goal 2, under OAR 660-015-0020(2)(Part II), permits an "exception" to the requirement of a 1 2 goal for "specific properties or situations." The text of Goal 2, part II, pertaining to exceptions is 3 codified in ORS 197.732; however, for EFSC-jurisdictional facilities, ORS 469.504(2) establishes 4 the requirements that must be met for the Council to take an exception to a land use planning 5 goal, not the LCDC rule or statute. The requirements of ORS 469.504(2) are implemented 6 through the Council's Land Use standard at OAR 345-022-0030(4), which states: 7 8 (4) The Council may find goal compliance for a proposed facility that does not otherwise 9 comply with one or more statewide planning goals by taking an exception to the 10 applicable goal. Notwithstanding the requirements of ORS 197.732 (emphasis added), the statewide planning goal pertaining to the exception process or any rules of the Land 11 12 Conservation and Development Commission pertaining to the exception process goal, the Council may take an exception to a goal if the Council finds: 13 14 15 (a) The land subject to the exception is physically developed to the extent that the land is no longer available for uses allowed by the applicable goal; 16 17 (b) The land subject to the exception is irrevocably committed as described by the 18 rules of the Land Conservation and Development Commission to uses not 19 allowed by the applicable goal because existing adjacent uses and other 20 relevant factors make uses allowed by the applicable goal impracticable; or 21 (c) The following standards are met: 22 23 (A) Reasons justify why the state policy embodied in the applicable goal should not apply; 24 25 26 (B) The significant environmental, economic, social and energy consequences 27 anticipated as a result of the proposed facility have been identified and adverse impacts will be mitigated in accordance with rules of the Council 28 29 applicable to the siting of the proposed facility; and 30 (C) The proposed facility is compatible with other adjacent uses or will be 31 32 made compatible through measures designed to reduce adverse impacts. 33 The provisions of OAR 345-022-0030(4)(a) and (b) are not applicable to RFA5. The certificate 34 35 holder submitted an assessment as to why a goal exception under OAR 345-022-0030(4)(c) is 36 appropriate for the facility, with proposed RFA5 modifications. The Department agrees that a 37 goal exception under OAR 345-022-0030(4)(c) is appropriate, and the Department's evaluation 38 of the OAR 345-022-0030(4)(c) is provided below. 39 40 **Reasons Supporting an Exception** 41 42 Under OAR 345-022-0030(4)(c)(A) (and ORS 469.504(2)(c)(A)), in order for the Council to

43 determine whether to grant an exception to a statewide planning goal, the certificate holder

must provide reasons justifying why the state policy embodied in the applicable goal should not
apply. The state policy embodied in Goal 3 is the preservation and maintenance of agricultural
land for farm use. The certificate holder's arguments relating to "reasons supporting an
exception" are discussed below.

5 6

Local Economic Benefits

7 8 The certificate holder asserts that the proposed expanded solar micrositing area would 9 promote rural economic development through job creation and by stimulating the Gilliam 10 County tax base. As evidence, the certificate holder provides data from the economic benefit of Phase 1 – Montague Wind Facility, which became operational in October 2019. The certificate 11 12 holder indicates that Phase 1 construction resulted in an estimated \$9.2 million in local 13 spending (within 100 miles), where similar revenue generation is expected during construction 14 of the remaining facility components. In addition, the certificate holder spent \$15.5 million in 15 Phase 1 construction labor and per diem for workers. Business Oregon (Meyers and Cuyler, 2017) reports the total payroll in Gilliam County in 2015 as \$21.6 million. Comparatively, the 16 17 construction labor for Montague Wind represented 87 percent of Gilliam County annual 18 payroll. Based on the data provided to represent the potential local economic benefits from the 19 proposed expanded solar micrositing area, the Department agrees that there would be a local economic benefit realized through stimulation of the local tax base and some new employment 20 21 opportunities would be created. The Department recommends the Council to conclude that this argument is a relevant "reason" justifying a Goal 3 exception. 22

- 23
- 24

Minimal Impacts to Agriculture

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26 The proposed expanded solar micrositing area would remove an additional 1,536 acre of lands 27 of four property owners (Athearn, Holtz, Weatherford, and Weedman) currently used for cultivation of dryland winter wheat. Within the subject tracts of these property owners, there is 28 29 approximately 9,684 acres available for agricultural use; within Gilliam County, there is over 700,000 acres available for agricultural use. The certificate holder requests that Council 30 consider the approximately 28 percent loss of agricultural lands within the subject tracts, and 31 32 less than 1 percent loss in Gilliam County overall, to be minimal. The landowners, with the exception of Athearn, would maintain lands available for agricultural use and, based on lease 33 payments from the certificate holder, would receive a net benefit in revenue compared to the 34 35 value of dryland wheat cultivation. In support of this reason, the certificate holder provides 36 landowner letters from Holtz, Athearn, Weatherford and Weedman which confirm support of 37 the proposed expanded solar micrositing area and confirm ability to maintain a sufficient level 38 of agricultural operations and access based on the removal of 1,536 acres. Based on the amount of available lands within the subject tracts and within Gilliam County, and landowner 39 statements provided in RFA5 Attachment 4 and on June 5, 2020 from certificate holder, the 40 41 Department recommends Council consider that the proposed expanded solar micrositing area 42 would result in minimal impacts to agriculture within Gilliam County and conclude that this

43 argument is a relevant "reason" justifying a Goal 3 exception.

Lack of Water Rights on Proposed Solar Array

1 2

3 The certificate holder asserts that there are no agricultural irrigation water rights located in the proposed expanded solar micrositing area, nor is Weedman Ranch able to obtain new water 4 5 rights after the expiration of water right No. G15187. The proposed expanded solar micrositing 6 area would be located within an area that was previously granted a water right (Permit G-7 15187). However, as explained within RFA5 and from a letter provided in RFA5 Attachment 4 by 8 Weedman Ranches Inc., the water right is no longer valid and was never used by Weedman 9 Ranches. Thus, water is not available for agricultural use within the proposed expanded solar micrositing area. The land is currently used for dryland winter wheat agriculture, which can be 10 grown without irrigation. However, the Department takes the position that a lack of water right 11 12 is a relevant "reason" justifying a Goal 3 exception. In the Columbia Plateau region, the 13 availability of water for irrigation is limited; but when available, irrigation typically leads to a 14 substantial increase in the farming productivity of the land. As such, the Department considers 15 this relevant information for the Council to consider when evaluating "reasons" that justify why a state policy embodied in the applicable goal should not apply, and the Department 16 17 recommends the Council to conclude that this argument a relevant "reason" justifying a Goal 3 18 exception. 19 20 Proximity to Existing Infrastructure 21 22 It is relevant to the Goal 3 exception reasons to consider that the facility components to be 23 located within the proposed expanded solar micrositing area were previously approved within a 24 designated site boundary. The proposed expanded solar micrositing area would be within 25 previously approved site boundary, adjacent to previously approved solar micrositing area, and 26 adjacent to existing operating wind facility components that would be shared by solar 27 equipment, including collector substation and 230 kV transmission line. The Department recommends the Council conclude that this argument is a relevant "reason" justifying a Goal 3 28 29 exception. 30 31

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Arguments That Do Not Qualify As "Reasons" to Justify a Goal 3 Exception

The certificate holder asserts that the availability of reliable renewable energy relates to the ability to recruit and retain energy-dependent businesses, which may maintain renewable energy procurement policies. The certificate holder has not provided evidence of any specific companies that are considering to expand, or move business, because of renewable energy procurement policies. Therefore, the Department finds this argument to be attenuated and lacking specifics; therefore, the Department recommends that the Council conclude that this

- argument is not a sufficient reason justifying a Goal 3 exception. 39
- 40

41 The certificate holder asserts that the facility would further public and private policies,

- including but not limited to Oregon's Renewable Portfolio Standard (RPS), which requires 42
- 43 utilities to provide 50 percent of its electricity from renewable sources by 2040. The

Department agrees that energy generated by the proposed facility could apply towards the 1 2 State's RPS requirements if RECs are generated and purchased by in-state utilities. However, 3 there is no requirement in the state RPS requirements that renewable energy be procured from 4 Oregon-based resources, nor direct facility development on agricultural lands, the Department 5 does not consider abstract consistency with the State's RPS standard to be a sufficient "reason" 6 justifying a Goal 3 exception for the proposed solar photovoltaic generation facility 7 components, specifically. Therefore, the Department recommends that Council conclude that 8 although the development of the proposed expanded micrositing area as a renewable energy 9 source would further and advance the State's renewable energy resources policy, this is not 10 considered a sufficient reason supporting or justifying a Goal 3 exception for the proposed 11 facility. 12 13 Significant Environmental, Economic, Social and Energy Consequences 14 15 Under OAR 345-022-0030(4)(c)(B) and ORS 469.504(2)(c)(B), in order for the Council to 16 determine whether to grant an exception to a statewide planning goal, the certificate holder 17 must show that "the significant environmental, economic, social and energy consequences" of 18 the proposed expanded solar micrositing area have been identified and mitigated in accordance 19 with Council standards. 20 21 Environmental Consequences 22 23 The facility, with proposed RFA5 modifications, must satisfy the requirements of all applicable 24 EFSC standards, rules and statutes. Applicable environmental EFSC standards include: General 25 Standard of Review; Soil Protection standard; Protected Areas standard; Recreation Standard; 26 Scenic Resources standard; Fish and Wildlife Habitat standard; and the Threatened and 27 Endangered Species standard. The Department recommends that the Council find that the facility, with proposed RFA5 modifications, has been designed to avoid impacts to soils, 28 29 wetlands, fish and wildlife habitats, and threatened and endangered species. The land is 30 already impacted by farming, and as described in Section III.A.6. Fish and Wildlife Habitat, is classified as Category 6 habitat, the lowest quality for wildlife. Siting the proposed expanded 31 32 solar micrositing area on Category 6 habitat avoids impacts higher quality wildlife habitat that could result if the solar facility were sited elsewhere. 33 34 35 Based on the Department's recommended findings of fact, conclusions of law, and conditions 36 of approval presented within this order, the Department recommends that Council find that the 37 facility, with proposed RFA5 modifications, would not cause significant adverse environmental 38 consequences or impacts. 39 40 Economic Consequences 41 42 The certificate holder represents that construction and operation of the facility, with 43 proposed RFA5 modifications, would result in beneficial economic consequences from job

- creation and subsequent tax revenue for the County, and the diversification of underlying 1
- 2 landowner income sources. Although existing areas within the site boundary are used for
- 3 agricultural purposes, the land proposed for inclusion in the proposed expanded solar
- 4 micrositing area is not irrigated and does not possess a water-right.
- 5

6 As provided in RFA5, Gilliam County has 170 farms and 723,405 acres of land in farms, with the 7 average size of a farm at approximately 4,255 acres (2012 Census). The certificate holder 8 proposes that removal of up to 2,725 acres (proposed expanded solar micrositing area) from 9 agricultural production be considered insignificant when compared against how much land is 10 available for agricultural use within Gilliam County. Further, any loss in income from crop yields would be offset by lease payments for the acreage. The additional 1,536 acres within the 11 12 proposed expanded solar micrositing area could be removed from farm deferral and become 13 taxable, which increases the tax base for Gilliam County.

14

15 In Oregon, solar projects are eligible for a Payment-in-Lieu-of-Taxes (PILOT) property tax

exemption at a base term of 15 years and an ability to extend for an additional 5 years. Under 16

17 Oregon House Bill 3492, PILOT agreements have a fixed rate of \$7,000 per nameplate of

18 generating capacity, which would equal \$1.1 million per year for the Montague Solar Facility

\$287,000 per year for the Oregon Trail Solar facility. For comparison, the combined taxes in 19

20 2020 for the two tax lots to be occupied by Montague Solar were \$7,077. The certificate holder

21 is not committing to use a tax deferral program at this time because these agreements are

22 negotiated with the County and acknowledged by Business Oregon and are outside of the EFSC review process.

- 23
- 24

25 In addition, the facility, with proposed RFA5 modifications, would create up to three new jobs 26 and construction-related jobs will result in indirect benefits from construction workers living, eating, and working in the vicinity. The certificate holder provides supporting data from its 27 experience constructing the first phase of the facility – referred as Phase 1 or Montague Wind 28 29 Facility - where it spent an estimated \$9.2 million. In addition, the certificate holder paid \$15.5 million toward construction labor and per diem for workers involved in the project. Business 30

Oregon (Meyers and Cuyler, 2017) reports the total payroll in Gilliam County in 2015 as \$21.6 31

32 million. Comparatively, the certificate holder asserts that its spending during construction of

the Montague Wind Facility represented 87 percent of Gilliam County annual payroll. 33

34

35 Based on review of the facts presented above, the Department recommends that the Council

36 conclude that the facility, with proposed RFA5 modifications, represents a net benefit

37 compared to the site's existing uses and economic consequences.

38

39 Social Consequences

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41 The certificate holder represents that the facility, with proposed RFA5 modifications, would not

- 42 result in significant adverse social consequences. The Department considers social
- 43 consequences as impacts on a community, such as impacts from facility visibility, noise, traffic

- 1 or demand on providers of public services. As demonstrated in the applicable sections of this
- 2 proposed order, the Department agrees that that proposed changes would not result in new or
- 3 increased impacts to scenic resources, protected areas, and recreational opportunities. The
- 4 Department addresses potential adverse impacts to public services in Section III.A.8, *Public*
- 5 *Services*, and impacts to cultural resources in Section III.A.7., *Historic, Cultural and*
- 6 Archaeological Resources. The Department recommends that the Council find that the
- 7 proposed expanded solar micrositing area would not result in significant adverse impacts to
- 8 these areas.
- 9
- 10 The certificate holder also represents that, when fully inverted, the solar panels would not
- 11 exceed 15 feet, and would not present a visual issue for automobile drivers. The certificate
- 12 holder further represents that "modern photovoltaic solar modules use a sophisticated
- 13 antireflective coating to nearly eliminate the reflection of sunlight off the module face and are
- 14 not expected to generate significant reflective glare." While the Department is aware that
- 15 "glare" may be considered a subjective concern, the Department recommends Council consider
- 16 that modern solar photovoltaic technologies should not pose a significant glare impact.
- 17 Based on the Department's recommended findings of fact and conclusions of law, and
- 18 recommended conditions of compliance, as presented in the order, the facility, with proposed
- 19 RFA5 modifications, would not cause significant adverse social consequences.
- 20

21 Energy Consequences

22

23 The certificate holder represents that, because the facility, with proposed RFA5 modifications, 24 would produce renewable energy, the energy consequences would be beneficial and would be 25 consistent with the State's Renewable Portfolio Standard and "Oregon's commitment to rural economic development." Although the Department notes that Oregon maintains an aggressive 26 27 Renewable Portfolio Standard, the certificate holder has not provided evidence that the sale of energy derived from the solar array would contribute towards any specific Oregon utility's RPS 28 29 requirements. However, whether the sale of energy from the proposed expanded solar 30 micrositing area would be directly attributable to the Renewable Portfolio Standard is not a material consideration. The mere fact that the facility would generate renewable energy 31 32 indicates that the proposed expanded solar micrositing area would not result in significant adverse energy consequences. Based upon the above analysis, the Department recommends 33 the Council find that the facility, with proposed RFA5 modifications, would meet the standard 34 35 under OAR 345-022-0030(4)(c)(B).

36

Compatibility of Adjacent Uses

37 38

The Department agrees that the proposed expanded solar micrositing area would not force a significant change in accepted farm practices in its discussion of GCZO 4.020(H); the reasoning

- found in that discussion applies to whether the solar array is compatible with other adjacent
- 42 uses, or whether the expansion areas would be made compatible through measures designed
- to reduce adverse impacts. Specifically, while the certificate holder states that the expansion

area could cause adverse impacts, these impacts are mitigated through the imposition of an 1 2 Erosion and Sediment Control Plan and a Revegetation and Weed Control Plan; as well as 3 implement best management practices to control construction-related dust; ensure that truck 4 traffic would be limited to improved road surfaces and; provide notice to adjacent landowners 5 relating to traffic impacts; employ flaggers, signage, and institute traffic control measures. 6 Additionally, site certificate Condition 41 requires the certificate holder to record a "Covenant 7 Not to Sue," relating to generally accepted farming practices on adjacent farmland, and the 8 landowner attests that the expansion area would not prevent continued farming operations. 9 10 Goal 3 Conclusion of Law 11 12 Based on the foregoing findings and evidence in the record, the Department recommends that Council grant a Goal 3 exception for the proposed expanded solar micrositing area that would 13 14 be occupied with solar facility components, subject to compliance with the recommended 15 amended and existing site certificate conditions. 16 **Conclusions of Law** 17 Based on the foregoing findings and the evidence in the record, and subject to compliance with 18 the conditions, the Department recommends Council find that an exception to Goal 3 is 19 20 justified under OAR 345-022-0030(4)(c) and ORS 469.504(2)(c); and that the facility, with 21 proposed RFA5 facility modifications, would comply with OAR 660-033-0130(38)(i) and 22 complies with the applicable statewide planning goal (Goal 3). As such, subject to the 23 conditions, the Department recommends Council finds that proposed RFA4 facility components 24 would comply with the Council's Land Use standard. 25 26 III.A.5 Retirement and Financial Assurance: OAR 345-022-0050 27 28 To issue a site certificate, the Council must find that: 29 30 (1) The site, taking into account mitigation, can be restored adequately to a useful, nonhazardous condition following permanent cessation of construction or operation of 31 32 the facility. 33 (2) The applicant has a reasonable likelihood of obtaining a bond or letter of credit in a 34 35 form and amount satisfactory to the Council to restore the site to a useful, nonhazardous condition. 36 37 38 **Findings of Fact** 39 40 The Retirement and Financial Assurance standard requires a finding that the facility site can be restored to a useful, non-hazardous condition at the end of the facility's useful life, should 41

1 either the certificate holder stop construction or should the facility cease to operate.³² In

2 addition, it requires a demonstration that the certificate holder can obtain a bond or letter of

3 credit in a form and amount satisfactory to the Council to restore the site to a useful, non-

- 4 hazardous condition.
- 5

6 The facility, with proposed RFA5 modifications, includes a new switching station and allocation 7 of previously approved facility components under an amended and two original site certificates. 8 The proposed switching station would include circuit breakers, switches and other auxiliary 9 equipment (none of which would be oil-containing), and would be a related or supporting facility under the Oregon Trail Solar Facility site certificate. Tasks and actions necessary to 10 restore the site of the switching station are described as similar to a collector substation, and 11 12 would include removal of equipment components, regrading, reseeding, removal and recycling 13 of site perimeter fence, removal of demolition debris to a licensed landfill, and recycling of 14 steel, concrete and other components. Using the same methodology approved in Council's Final 15 Order on RFA4, the certificate holder estimates that switching station decommissioning would cost approximately \$86,085. Based on use of previously approved cost estimating 16 17 methodologies, the Department recommends Council find that the estimate would be 18 satisfactory for restoring the switching station site to a useful, nonhazardous condition. 19 20 RFA5 proposes to allocate facility components approved in Council's Final Order on RFA4 into 21 two original site certificates, including up to 162 MW of solar photovoltaic energy generation 22 equipment covered under the Montague Solar Facility site certificate and up to 41 MW of 23 combined wind and solar facility components. Related or supporting facilities that would be 24 shared between the site certificates include collector substations, O&M building, 230 kV 25 transmission line, access roads and temporary laydown areas. Based on the allocation of 26 previously approved facility components and proposed new switching station, the certificate 27 holder provides an updated decommissioning cost estimate for each facility. The updated decommissioning estimate totals \$11.1 million, increasing the previous estimate by 28 29 approximately \$1.2 million: \$8.1 million for the Montague Solar Facility; and \$3.1 million for the Oregon Trail Solar Facility. The certificate holder has not proposed to apply an adjustment 30 factor to the decommissioning cost of shared related or supporting facilities and accounts for 31 32 the full decommissioning cost for shared facilities to be referenced in Condition 32, as

- 33 presented in RFA5 Attachment 3.
- 34
- 35 Council previously determined that the decommissioning estimate totaling \$10.5 million (1st
- 36 Quarter 2019 dollars), for facility components approved in the Final Order on RFA4 (Phase 2),
- 37 was satisfactory based on the methodologies and assumptions used to develop the estimate.
- 38 The Department recommends Council continue to find that the decommissioning estimate is
- 39 satisfactory for restoration of the sites to a useful, non-hazardous condition. In addition, the
- 40 Department currently maintains a bond for the Montague Wind Power Facility for \$7.7 million
- 41 dollars, which the Department recommends be considered sufficient evidence to support the

³² OAR 345-022-0050(1).

- 1 Council's finding that the certificate holder has demonstrated a reasonable likelihood of
- 2 obtaining a bond or letter of credit prior to construction.
- 3

4 Council previously imposed Condition 32 requiring that, prior to construction, the certificate

- 5 holder submit to the Department a bond or letter of credit in the amount applicable to number
- 6 of facility components, based on the approved decommissioning estimate methodology. Based
- 7 on the changes described above, Condition 32 would be amended in each site certificate to
- 8 accurately reflect the decommissioning amount applicable to the allocation of previously
- 9 approved and proposed related or supporting facilities (\$8.1 million for Montague Solar Facility
- and \$3.5 million for Oregon Trail Solar Facility), as presented in Attachment A of this order.
- 11
- 12 Subject to compliance with existing and recommended amended conditions, the Department
 - recommends the Council find that the site of the facility, with proposed RFA5 modifications,
 - 14 can be restored adequately to a useful, non-hazardous condition following permanent
 - cessation of construction or operation. Additionally, the Department recommends that the
 - 16 Council find that the certificate holder has a reasonable likelihood of obtaining a bond or letter
 - 17 of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-
 - 18 hazardous condition.
 - 19

20 Conclusions of Law

21

Based on the foregoing findings of fact, and subject to compliance with existing and
recommended amended conditions, the Department recommends that the Council find that
the facility, with proposed RFA5 modifications, would continue to comply with the Council's
Retirement and Financial Assurance standard.

26 27

28

- III.A.6 Fish and Wildlife Habitat: OAR 345-022-0060
- To issue a site certificate, the Council must find that the design, construction and operation
 of the facility, taking into account mitigation, are consistent with:
- 31 32

33 34 (1) The general fish and wildlife habitat mitigation goals and standards of OAR 635-415-0025(1) through (6) in effect as of February 24, 2017***

35 Findings of Fact

- 36
- 37 The EFSC Fish and Wildlife Habitat standard requires the Council to find that the design,
- construction and operation of a facility is consistent with the Oregon Department of Fish and
- 39 Wildlife's (ODFW) habitat mitigation goals and standards, as set forth in OAR 635-415-0025.
- 40 This rule creates requirements to mitigate impacts to fish and wildlife habitat, based on the
- 41 quantity and quality of the habitat as well as the nature, extent, and duration of the potential
- 42 impacts to the habitat. The rule also establishes a habitat classification system based on value

- 1 the habitat would provide to a species or group of species. There are six habitat categories;
- 2 Category 1 being the most valuable and Category 6 the least valuable.
- 3
- The analysis area for potential fish and wildlife habitat impacts, as defined in the project order,
 is the area within the site boundary and extending ½-mile from all ground-disturbing activities.
- 7 The proposed expanded solar micrositing area and alternate 230 kV transmission line route
- 8 would be located entirely within Category 6 habitat. Because the expansion areas are within
- 9 the previously approved site boundary, the habitat assessment and categorization provided in
- 10 RFA4 covered the expansion areas and therefore was previously reviewed and concurred by
- 11 Oregon Department of Fish and Wildlife. Therefore, the Department recommends Council
- 12 concur with the habitat categorization.
- 13
- 14 In RFA5, the certificate holder requests to allocate previously approved wind and solar facility
- components into an amended and two original site certificates. Based on the facility
- 16 component allocation, and updated facility description, the Habitat Mitigation Plan,
- 17 Revegetation Plan, Weed Control Plan, and Wildlife Monitoring and Mitigation Plan (WMMP)
- 18 have been administratively amended to accurately describe the facilities and remove
- 19 requirements applicable to solar or wind, as applicable. <u>The certificate holder requests that the</u>
- 20 WMMP, which includes a post-construction fatality monitoring study, be further amended to
- 21 remove the requirement for consultation with ODFW to determine the extent of post-
- 22 construction fatality monitoring for solar facility components. To support this request, the
- 23 certificate holder provides a summary and citation of a one-year study from Kosciuck and
- 24 describes the results of a study conducted at Avangrid's Gala Solar Facility in Prineville, Oregon.
- 25 The results support a conclusion that solar facilities are not contributing to bird and bat fatality.
- 26 Based on review of the studies and information provided by the certificate holder, the
- 27 Department agrees that there is limited evidence supporting that solar facility components
- 28 contribute to bird and bat mortality and recommends Council amend the WMMP for Montague
- 29 <u>Solar Facility and Oregon Trail Solar Facility, as requested.³³ The red-line version of the draft</u>
- 30 amended plans are provided in Attachments D, E, F and G of this order.
- 31

32 Conclusions of Law

- 33
- Based on the foregoing findings of fact and conclusions, and subject to compliance with existing
- 35 conditions and amended plans, the Department recommends the Council find that facility, with
- 36 proposed RFA5 modifications, would continue to comply with the Council's Fish and Wildlife
- 37 Habitat standard.
- 38

³³ MWPAMD5 DPO Comment Certificate Holder Hutchinson 2020-07-23.

1	III.A.7 Historic, Cultural, and Archaeological Resources: OAR 345-022-0090
2	
3	(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the
4	Council must find that the construction and operation of the facility, taking into account
5	mitigation, are not likely to result in significant adverse impacts to:
6	
/	(a) Historic, cultural or archaeological resources that have been listed on, or would
8	likely be listed on the National Register of Historic Places;
9 10	(b) For a facility on private land, archaeological objects, as defined in OPS
11	(b) For a judnity on private rand, archaeological objects, as defined in ORS 358 905(1)(a), or archaeological sites, as defined in ORS 358 905(1)(c); and
12	
13	(c) For a facility on public land, archaeological sites, as defined in ORS 358.905(1)(c).
14	
15	(2) The Council may issue a site certificate for a facility that would produce power from
16	wind, solar or geothermal energy without making the findings described in section (1).
17	However, the Council may apply the requirements of section (1) to impose conditions on
18	a site certificate issued for such a facility.
19	***
20	Findings of Fact
21	
22	Subsection (1) of the Historic, Cultural and Archaeological Resources standard, OAR 345-022-
23	0090, generally requires the Council to find that the facility is not likely to result in significant
24	adverse impacts to identified historic, cultural, or archaeological resources. Subsection (2) of
25	OAR 345-022-0090 provides that the findings described in subsection (1) may be waived for
26	wind and solar facilities. However, the Council may impose site certificate conditions based on
27	the requirements of this standard.
28	
29	The analysis area for the evaluation of potential impacts to identified historic, cultural or
30	archeological resources, as defined in the Project Order, is the area within the site boundary.
31	Description of Discourse Managemen
32 22	Description of Discovery measures
33 24	The certificate holder conducted literature and field surveys to evaluate the potential presence
25	of cultural historic or archeological resources within the additional 1 535 acres proposed for
32	inclusion in the expanded solar micrositing area. Within the solar micrositing expansion areas
30	1 474 acres were previously surveyed during a combination of survey efforts extending from
38	the original Montague Wind Power Facility ASC the Baseline Wind Energy Project ASC
39	(application withdrawn) and Montague Wind Power Facility Phase 1 pre-construction surveys
40	The literature review, using Oregon State Historic Preservation Office's (SHPO) Archaeological
41	Records Remote Access database, was conducted on May 28. 2020. and was specific to the 61
42	acres not previously surveyed and proposed alternate 230 kV transmission route.
43	

Results of Discovery Measures – Historic and Cultural Resources; Archeological Sites 1 2 3 The certificate holder previously identified thirty-four cultural resources recorded within 1-mile 4 of the analysis area, including 14 isolates, 10 archaeological sites, 7 built environment properties, 1 National Registry of Historic Places (NRHP)-eligible Historic Property of Religious 5 and Cultural Significance to Indian Tribes (HPRCSIT), and two potentially NRHP-eligible 6 7 HPRCSITs.³⁴ Within the analysis area, 11 resources were identified including 1 archaeological 8 site (35GM306), 7 built environment properties and 3 HPRCSITs. 9 10 For RFA5, the updated literature review identified no newly recorded archaeological, cultural, or historic resources. Of the previously identified resources, five would be within or adjacent to 11 12 the solar micrositing area and transmission line route. As provided in RFA5, submitted as a 13 confidential record, the four previously recorded archeological sites and isolates include 14 archaeological site 35GM306, located adjacent to the Oregon Trail Solar micrositing area on the 15 east side. Site 35GM306 was documented as a part of the Baseline report (Ragsdale et al., 16 2011) and determined ineligible for listing in the NRHP. Two of the resources (1692-212i-a/b) 17 are isolated finds and considered ineligible for listing in the NRHP. The fourth resource, 18 35GM310, is an unevaluated, but potentially eligible resource located northeast of the 19 intersection of Old Tree Road and OR 19. In addition, the Weatherford Barn was previously 20 identified as a likely NRHP-eligible built environment resource. 21 22 Potential Impacts to Historic and Cultural Resources; Archeological Sites 23 24 The facility modifications proposed in RFA5 include expansion of the solar micrositing corridor 25 on the property where the Weatherford Barn is located. In a worst-case scenario, solar 26 components would be located within 300 feet of the Weatherford Barn to the west, north, and 27 east. Council previously found that siting solar facility components in proximity to the Weatherford Barn could have a potentially significant impacts through the impact to setting of 28 29 the resource from occupation of energy infrastructure on agricultural lands within a rural setting. Council previously imposed Condition 47 requiring that the certificate holder consult 30 with SHPO and the Department on facility design and equipment setback distances that could 31 32 reduce the impact; or, if an adequate setback distance is not established, implement a Historical Resource Mitigation Plan (HRMP) requiring that the certificate holder conduct a 33 reconnaissance level survey of barns in Gilliam County or neighboring counties; partner with a 34 35 third-party to fund a barn rehabilitation grant for the community; or, partner with a local

³⁴ On the record of the draft proposed order, staff from the Confedered Tribes of the Umatilla Indian Reservation Natural Resource Department identified potential impacts from the facility, with changes proposed in RFA5, to two previously identified HPRCSITs and, ultimately, confirmed a continued interest in working with the certificate holder on appropriate mitigation outside of the EFSC siting process. MWPAMD5 DPO Comments Tribal Government CTUIR Farrow Ferman; Steinmetz. 2020-07-21.

During the July 24, 2020 Council review of the draft proposed order, Council member Grail requested that staff continue to coordinate with CTUIR to ensure that the certificate holder fulfilled its commitment with CTUIR. EFSC Council Meeting Agenda Item H. 2020-07-24.

historic society to develop a historic barn exhibit, to mitigate the impacts to the Weatherford 1 2 Barn.

- 3
- 4 Based upon review and recommendations received on the record of the draft proposed order from the Oregon State Historic Preservation Office (SHPO), the While the overall impact to the 5 6 resource from the proposed expanded solar micrositing area would diminish the integrity and 7 setting of the resource entirely.³⁵ could increase as a result of the expanded solar microstiing 8 area and changes in facility layout requiring additional area used by solar facility components, 9 the Department recommends Council find that the previously imposed condition would continue to reduce and mitigate the impact. Therefore, mitigation measures should be 10 appropriate to offset the increase in overall impacts to setting and integrity. Based on 11 12 consultation with SHPO, the Department recommends that the HRMP be amended to require implementation of at least two of the measures, fully implemented. Based on implementation 13 of two full mitigation measures, as described above, the Department and SHPO recommend 14 Council find that, with mitigation, the facility, with proposed changes, would not be likely to 15 result in significant adverse impacts to the Weatherford Barn. 16 17 18 The Historical Resource Mitigation Plan, referenced in Condition 47(b), would only apply under the Montague Solar Facility site certificate, based on location of redefined site boundaries and 19 20 proposed expanded solar micrositing area. Therefore, the plan and Condition 47(b) have been 21 amended to account for these changes, as presented in Attachment A and H of this order. 22 23 To address the 61 unsurveyed acres within the proposed expanded solar micrositing area, Council previously imposed Condition 49, which requires completion of field surveys prior to 24 25 construction within any areas unsurveyed for cultural resources. This type of condition, 26 approving construction and operational activities in a site certificate without surveys, is 27 appropriate in certain circumstances, based on historic use of the land. The 61 unsurveyed acres is within an area of historic and current agricultural use, and would have low likelihood of 28 29 identification of potential resources given the level of disturbance from long-term agricultural 30 practices. Nonetheless, if solar facility components are to be located within these areas, the certificate holder is obligated to complete pre-construction surveys in accordance with the 31 32 existing condition. 33 Based on the discovery measures and results, and compliance with existing and amended 34 35 conditions, the Department recommends that Council find that the facility, with proposed RFA5 36 modifications, would not be likely to result in significant adverse impacts to resources 37 protected by the Council's Historic, Cultural and Archaeological Resources standard. 38 39
- 40

³⁵ MWPAMD5 DPO Reviewing Agency Comment SHPO 2020-07-17. MWPAMD5 DPO Comment Certificate Holder 2020-07-23.

Conclusions of Law 1

2

3 Based on the foregoing analysis, and subject to compliance with existing and recommended 4 amended conditions, the Department recommends the Council find that the facility, with

5 proposed RFA5 modifications, would continue to comply with the Council's Historic, Cultural,

6 and Archaeological Resources Standard.

7 8

9

III.A.8 Public Services: OAR 345-022-0110

10 (1) Except for facilities described in sections (2) and (3), to issue a site certificate, the 11 Council must find that the construction and operation of the facility, taking into account 12 mitigation, are not likely to result in significant adverse impact to the ability of public and private providers within the analysis area described in the project order to provide: 13 14 sewers and sewage treatment, water, storm water drainage, solid waste management, housing, traffic safety, police and fire protection, health care and schools. 15

- 17 (2) The Council may issue a site certificate for a facility that would produce power from wind, solar or geothermal energy without making the findings described in section (1). 18 19 However, the Council may apply the requirements of section (1) to impose conditions on 20 a site certificate issued for such a facility. ***
- 21

22 **Findings of Fact**

23

16

24 The Council's Public Services standard requires the Council to find that a proposed facility or a 25 proposed facility change is not likely to result in significant adverse impacts on the ability of 26 public and private service providers to supply sewer and sewage treatment, water, stormwater 27 drainage, solid waste management, housing, traffic safety, police and fire protection, health 28 care, and schools.³⁶ Pursuant to OAR 345-022-0110(2), the Council may issue a site certificate 29 for a facility that would produce power from wind energy without making findings regarding 30 the Public Services standard; however, the Council may impose site certificate conditions based 31 upon the requirements of the standard. 32

33 In accordance with OAR 345-001-0010(59)(b) and consistent with the study area boundary, the analysis area for potential impacts to public services from construction and operation of the 34 35 facility, with proposed RFA5 modifications, is defined as the area within and extending 10-miles 36 from the site boundary.

37

³⁶ On the record of the draft proposed order. Morrow County Planning Department requested execution of a road use agreement for impacts to any Morrow County public roads used during facility construction. In response to comments, the certificate holder confirms that Morrow County public roads would not be used during facility construction and provides email correspondence (July 20, 2020) with Morrow County Public Works Director Matt Scrivner, where additional confirmation was obtained. MWPAMD5 DPO Reviewing Agency Comment Morrow County Planning Department. 2020-07-17. MWPAMD5 DPO Comment Certificate Holder Hutchinson. 2020-07-23.

1 In RFA5, the certificate holder proposes to expand the solar micrositing area by 1,535 acres

2 (1,189 to 2,725 acres), to allow additional flexibility in layout of previously approved solar

- 3 energy generation components. The proposed expanded solar micrositing area would not result
- 4 in increased water use or wastewater disposal, or waste generation. In addition, the proposed
- 5 expanded micrositing area would not result in changes to the previous assumptions related to
- 6 maximum number of workers at the site, or daily vehicle miles travelled to and from the site.
- 7 Therefore, the Department recommends Council find that the facility, with proposed RFA5
- 8 modifications, would not be likely to change the previous findings that facility construction and
- operation would not be likely to result in significant adverse impacts on the ability of providers
 of sewer and sewage treatment, water, stormwater drainage, solid waste management,
- 11 housing, traffic safety, police, health care, or schools, to provide service. The Department,
- 12 however, considers that the proposed expansion of solar micrositing area, because it includes
- 13 more area, could result in increased impacts due to placement of solar facility components
- 14 within high-fire risk area on the ability of fire protection services to provide service, and
- 15 therefore is evaluated in this section.
- 16

17 The proposed expanded solar micrositing area in within the service territory of the North 18 Gilliam County Rural Fire Protection District, a district comprised of 15 volunteer fire fighters with one Type 4 brush vehicle, two Type 5 brush vehicles, one light brush vehicle, two Type 2 19 water tenders, and three Type 2 structure engines. In 2009, during the Council's review of the 20 21 ASC, the certificate holder obtained written confirmation from the fire district, which stated 22 that the facility was not expected to impact their ability to provide fire protection services. 23 However, based on Gilliam County's 2007 Community Wildfire Protection Plan, Gilliam County 24 has been designated as a high-fire risk area. Because the North Gilliam County Rural Fire 25 Protection District is a volunteer district, and the proposed expanded solar micrositing area would include occupation of high-fire risk land, and based on the certificate holder's 26 27 representation in the ASC Exhibit U – committing to provide mutual assistance for fire 28 response, the Department recommends Council find that the proposed expanded solar 29 micrositing area could impact fire protection providers ability to provide service. Therefore, the Department recommends Council amend Condition 60, requiring that, the fire safety plan 30 specifically address worker training requirements, inspections (type and frequency), vegetation 31 32 management, fire prevention and response equipment, and agreements for mutual assistance 33 in fire response to the expanded solar microsting area. The recommended amended Condition 34 60 would be presented the Montague Solar and Oregon Trail Solar Facility site certificates, as 35 follows: 36 37 Montague Solar and Oregon Trail Solar Facilities 38

Recommended Amended Condition 60: During construction and operation of the
 facility, the certificate holder shall develop and implement fire safety plans in
 consultation with the North Gilliam County Rural Fire Protection District to minimize the
 risk of fire and to respond appropriately to any fires that occur on the facility site. In
 developing the fire safety plans, the certificate holder shall take into account the dry

1	nature of the region and shall address risks on a seasonal basis. For solar facility
2	components, the certificate holder shall address worker training requirements,
3	inspections, vegetation management, fire prevention and response equipment and
4	potential mutual assistance in the case of fire within or around the facility site
5	<u>boundaryagreements with fire districts for mutual assistance in fire response</u> . The
6	certificate holder shall meet annually with local fire protection agency personnel to
7	discuss emergency planning and shall invite local fire protection agency personnel to
8	observe any emergency drill or tower rescue training conducted at the facility.
9	
10	Conclusions of Law
11	
12	Based on the foregoing analysis, and subject to the existing and recommended amended
13	conditions, the Department recommends that the Council find that the facility, with proposed
14	RFA5 facility modifications, would continue to comply with the Council's Public Services
15	standard.
16	
17	III.A.9 Siting Standards for Transmission Lines: OAR 345-024-0090
18	
19	To issue a site certificate for a facility that includes any transmission line under Council
20	jurisdiction, the Council must find that the applicant:
21	
22	(1) Can design, construct and operate the proposed transmission line so that alternating
23	current electric fields do not exceed 9 kV per meter at one meter above the ground
24	surface in areas accessible to the public;
25	(2) Can design, construct and operate the proposed transmission line so that induced
26	currents resulting from the transmission line and related or supporting facilities will be
27	as low as reasonably achievable.
28	Findings of Fost
29	Findings of Fact
50 21	This standard addresses safety bazards associated with electric fields around transmission lines
22	Section (1) of OAR 345-024-0090 sets a limit for electric fields from transmission lines of not
22	more than 9 kV per meter at one meter above the ground surface in areas that are accessible to
24	the nublic Section (2) requires implementation of measures to reduce the risk of induced
34	current
36	
30	In REA5, the certificate holder proposes an alternate 230 kV transmission line route for an
38	approximately 3.6 mile segment of the previously approved 14 mile line. The certificate holder
39	asserts that the modeled electric fields included in RFA4, which present 0.03 kV per meter
40	within 100 feet of the transmission line centerline, would not be impacted as a result of the
41	proposed route change. Based on review of RFA4 Exhibit AA Attachments ΔA -3 and ΔA -4 the
42	Department agrees that the modeling assumptions and results remain valid and would not be
43	impacted by the proposed route change. Similarly, because the certificate holder previously
	mpaster sy the proposed route enanger similarly, because the certificate holder previously
- 1 evaluated and received approved for construction and operation of a 14-mile 230 kV
- 2 transmission line, the route change would not be expected to affect or change the risk of
- 3 induced current previously evaluated.
- 4

5 Council previously imposed Condition 89 to reduce human exposure to electromagnetic fields, 6 including a setback from transmission line structures to residences or other occupied structures 7 of 200 feet. The 200 foot setback is consistent with the informational requirement under OAR 8 345-021-0010(1)(aa)(ii), where during the ASC or site certificate amendment process, an 9 applicant or certificate holder is obligated to identify occupied structures within 200 feet of the centerline of a proposed transmission line. During the ASC process, the certificate holder 10 represented that it would not site transmission structures within 200 feet of an occupied 11 12 structures, which was then imposed as a condition requirement. 13 14 In RFA5, the certificate holder requests that this provision be removed because the proposed 15 alternate 230 kV transmission line route would be within 110 to 100 feet of an occupied structure, as presented in RFA5 Figure 4. Because the 200 foot setback is not required under 16 17 the standard, is far greater than National Electric Safety Code conductor clearance 18 requirements, and was imposed based on an applicant representation rather than an actual 19 regulatory requirement, the Department recommends Council amend the condition as 20 requested, as follows: 21 22 Montague Wind Power, Montague Solar, and Oregon Trail Solar Facilities 23 24 Recommended Amended Condition 80: The certificate holder shall take reasonable steps 25 to reduce or manage human exposure to electromagnetic fields, including but not limited 26 to: 27 Constructing all aboveground transmission lines at least 200 feet from any residence or other occupied structure, measured from the centerline of the transmission line 28 29 a. Providing to landowners a map of underground and overhead transmission lines on their property and advising landowners of possible health risks from electric and 30 31 magnetic fields 32 b. Designing and maintaining all transmission lines so that alternating current electric fields do not exceed 9 kV per meter at one meter above the ground surface in areas accessible 33 34 to the public. c. Designing and maintaining all transmission lines so that induced voltages during 35 36 operation are as low as reasonably achievable. 37 [Final Order on ASC; AMD5] 38 **Conclusion of Law** 39 40

41 For the reasons discussed above, and subject to compliance with the existing and amended site

42 certificate conditions, the Department recommends that the Council find that the facility, with

proposed RFA5 modifications, would not result in a significant adverse impact under OAR 345-1 024-0090 would comply with the Council's Siting Standards for Transmission Lines.

Under ORS 469.503(3) and under the Council's General Standard of Review (OAR 345-022-

0000), the Council must determine whether the proposed facility complies with "all other

- 2
- 3 4

5 6

7

III.A.10 Other Applicable Regulatory Requirements Under Council Jurisdiction

8 Oregon statutes and administrative rules...as applicable to the issuance of a site certificate for 9 the proposed facility." This section addresses the applicable Oregon statutes and administrative 10 rules that are not otherwise addressed in Council standards, including noise control regulations, 11 regulations for removal or fill of material affecting waters of the state, and regulations for 12 appropriating ground water. 13 14 III.A.10.1 Noise Control Regulations: OAR 340-035-0035 15 16 (1) Standards and Regulations: *** 17 18 (b) New Noise Sources: 19 20 (B) New Sources Located on Previously Unused Site: 21 22 (i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or 23 permit the operation of that noise source if the noise levels generated or 24 indirectly caused by that noise source increase the ambient statistical noise 25 26 levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels 27 specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph 28 29 (1)(b)(B)(iii).30 31 (ii) The ambient statistical noise level of a new industrial or commercial noise 32 source on a previously unused industrial or commercial site shall include all 33 noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section 34 35 (1) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement. 36 37 38 (iii) For noise levels generated or caused by a wind energy facility: 39 40 (I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient 41 42 background level. The person owning the wind energy facility may

1	conduct measurements to determine the actual ambient L10 and L50
2	background level.
3	(II) The "actual ambient background level" is the measured noise level at the
4	appropriate measurement point as specified in subsection (3)(b) of this
5	rule using generally accepted noise engineering measurement practices.
6	Background noise measurements shall be obtained at the appropriate
7	measurement point, synchronized with windspeed measurements of hub
8	height conditions at the nearest wind turbine location. "Actual ambient
9	background level" does not include noise generated or caused by the wind
10	energy facility.
11	(III) The noise levels from a wind energy facility may increase the ambient
12	statistical noise levels L10 and L50 by more than 10 dBA (but not above
13	the limits specified in Table 8), if the person who owns the noise sensitive
14	property executes a legally effective easement or real covenant that
15	benefits the property on which the wind energy facility is located. The
16	easement or covenant must authorize the wind energy facility to increase
17	the ambient statistical noise levels, L10 or L50 on the sensitive property by
18	more than 10 dBA at the appropriate measurement point.
19	(IV) For purposes of determining whether a proposed wind energy facility
20	would satisfy the ambient noise standard where a landowner has not
21	waived the standard, noise levels at the appropriate measurement point
22	are predicted assuming that all of the proposed wind facility's turbines
23	are operating between cut-in speed and the wind speed corresponding to
24	the maximum sound power level established by IEC 61400-11 (version
25	2002-12). These predictions must be compared to the highest of either the
26	assumed ambient noise level of 26 dBA or to the actual ambient
27	background L10 and L50 noise level, if measured. The facility complies
28	with the noise ambient background standard if this comparison shows
29	that the increase in noise is not more than 10 dBA over this entire range
30	of wind speeds.
31	(V) For purposes of determining whether a proposed wind energy facility
32	would satisfy the Table 8 standards, noise levels at the appropriate
33	measurement point are predicted by using the turbine's maximum sound
34	power level following procedures established by IEC 61400-11 (version
35	2002-12), and assuming that all of the proposed wind facility's turbines
36	are operating at the maximum sound power level.
37	(VI) For purposes of determining whether an operating wind energy facility
38	satisfies the Table 8 standards, noise generated by the energy facility is
39	measured at the appropriate measurement point when the facility's
40	nearest wind turbine is operating at the windspeed corresponding to the
41	maximum sound power level and no turbine that could contribute to the
42	noise level is disabled.
43	***

1 Findings of Fact

2

3 The Department of Environmental Quality (DEQ) noise control regulations at OAR 340-035-0035

have been adopted by Council as the compliance requirements for EFSC-jurisdiction energyfacilities.

6

7 The noise impact analysis area includes the area within and extending 1-mile from the site8 boundary.

- 9 boundary
- 10 Noise Standards
- 11

12 The DEQ noise rules set noise limits for new industrial or commercial noise sources based upon

13 whether those sources would be developed on a previously used or unused industrial or

commercial site. Pursuant to OAR 340-035-0015(47), a "previously unused industrial or

15 commercial site" is defined as property which has not been used by any industrial or

16 commercial noise source during the 20 years immediately preceding commencement of

17 construction of a new industrial or commercial source on that property. There is no evidence in

18 the record that the facility site has been in industrial or commercial use at any time during the last

19 20 years, therefore the site is considered a previously unused site and evaluated per the

- 20 requirements of OAR 340-035-0035(1)(b)(B).
- 21

22 The requirements of OAR 340-035-0035(1)(b)(B)(ii), as provided above, apply to noise levels of

23 new industrial or commercial noise sources on previously unused industrial or commercial sites;

the requirements of OAR 340-035-0035(1)(b)(B)(iii) apply to noise levels generated by a "wind

energy facility."³⁷Council previously determined that because the facility was originally

26 approved as a wind facility, and continues to include wind energy generation equipment along

with solar components, that the provisions in -0035(1)(b)(B)(ii) specific to a wind facility

continues to apply. Consistent with Council's previous orders for the facility, the analysis

29 presented in this section evaluates compliance of the facility, with proposed RFA5

- 30 modifications, under OAR 340-035-0035(1)(b)(B)(ii).
- 31

Noise generated by a wind energy facility or a new industrial or commercial source located on a previously unused site must comply with two standards: the "ambient noise degradation standard" and the "maximum allowable noise standard." Under the ambient noise degradation standard, facility-generated noise must not increase the ambient hourly L10 or L50 noise levels at any noise sensitive property by more than 10 dBA. For a wind energy facility, this evaluation is based on a predictive noise analysis assuming wind turbines are operating "between cut-in

37 is based on a predictive noise analysis assuming wind turbines are operating between cut-in 38 speed and the wind speed corresponding to the maximum sound power level" and may assume

an ambient hourly L50 noise level of 26 dBA or based on measured ambient hourly noise levels

- 40 at the receiver in accordance with the procedures specified in the regulation. Because the
- 41 facility was originally approved as a wind facility, and continues to include wind facility

³⁷ OAR 340-035-0035(1)(b)(A).

- 1 components, along with solar components, the Department recommends Council continue to
- 2 allow use of the assumed 26 dBA noise level for this analysis.
- 3
- 4 To demonstrate compliance with the ambient noise degradation standard, noise generated
- 5 during facility operation must not cause the hourly L50 noise level at any noise-sensitive
- 6 property to exceed 10 dBA above measured ambient noise levels.
- 7
- 8 Under the maximum allowable noise standard at OAR 340-035-0035(1)(b)(B)(i), industrial or
- 9 commercial noise sources may not exceed the noise levels specified in the noise rules, as
- 10 represented in Table 2, *Statistical Noise Limits for Industrial and Commercial Noise Sources*
- 11 below.

Table 2: Statistical Noise Limits for Industrial and Commercial Noise Sources

Statistical	Maximum Permissible Hourly Statistical Noise Levels (dBA)		
Descriptor ¹	Daytime (7:00 AM - 10:00 PM)	Nighttime (10:00 PM - 7:00 AM)	
L50	55	50	
L10	60	55	
L1	75	60	
Notes: 1. The hourly L50, L10 and L1 percent, 10 percent, and 1	noise levels are defined as the noi percent of the hour, respectively.	se levels equaled or exceeded 50	

Source: OAR 340-035-0035, Table 8

- 12
- 13 Potential Noise Impacts

14

15 The Department evaluates the certificate holder's assessment of operational noise from the

- 16 facility, with proposed RFA5 modifications, below. Construction-related noise impacts, which
- are exempt from DEQ's noise rules (OAR 340-035-0035(5)(g)), would be expected to be the
- 18 same as evaluated in the Final Order on RFA4. In the Final Order on RFA4, noise generated from
- 19 clearing, excavation, foundation, erection and finishing would result from operation of
- 20 construction equipment and predicted sound pressure levels at specific distances such as: air
- 21 compressor (81 dBA at 50 ft), backhoe (85 dBA at 50 ft), pile driver (101 dBA at 50 ft), grader
- 22 (85 dBA at 50 ft), loader (79 dBA at 50 ft), saw (78 dBA at 50 ft), and trucks (91 dBA at 50 ft).
- 23 Predicted sound pressure levels from construction phases would result range from 90 to 60 dBA
- 24 at 50 and 1,500 feet, respectively.
- 25
- In RFA5, the certificate holder proposes to expand the solar micrositing area from 1,189 to
- 27 2,725 acres, to allow additional flexibility in the layout of previously approved solar
- 28 photovoltaic energy generation equipment. RFA5 proposes a new related or supporting facility,
- a switching station. The switching station would include circuit breakers, switches and other
- 30 auxiliary equipment none of which would be noise-generating. The proposed change in layout
- of solar energy generation equipment, and use of more area, could result in changes to the

- 1 operational noise previously evaluated in Council's Final Order on RFA4, and therefore is
- 2 evaluated in this order.
- 3
- 4 The certificate holder conducted a noise analysis using the International Organization for
- 5 Standardization 9613-2 (ISO 9613-2), Acoustics Sound Attenuation During Propagation
- 6 Outdoors Part 2: General Method of Calculation (1996) implemented by Cadna/a Version 2020.
- 7 Equipment and noise levels modeled include: 102 inverters at 66 dBA at 33 feet; 1 step-up
- 8 transformer at 98 dBA; and 100 MW battery storage system at 102.2 dBA (per 10 MW
- 9 centroid). As presented in Figure 7: *Noise Sensitive Receptors within 2 Miles of Siting Boundary*
- 10 below, the certificate holder identifies three noise sensitive receptors (R290, R332, and R360)
- 11 which could be impacted by noise generated within the proposed expanded solar micrositing
- 12 area.
- 13
- 14

Oregon Department of Energy



1 Figure 7: Noise Sensitive Receptors within 2-Miles of Site Boundary

2

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1 2

Ambient Noise Degradation Standard

- 3 The ambient noise degradation standard requires a demonstration that noise generated during 4 facility operation must not cause the hourly L50 noise level at any noise-sensitive property to 5 exceed 10 dBA above ambient or, in this case, 36 dBA. Based upon the certificate holder's noise 6 analysis, maximum noise levels within the proposed expanded solar micrositing area at each 7 potentially impacted noise sensitive property (presented in paren) were modeled at 29 (R360), 8 38 (R290) and 40 (R332) dBA. Predicted noise levels at noise sensitive property R290 and R332 9 would exceed the ambient antidegradation standard, which would be within the Montague 10 Solar Facility site boundary. In accordance with OAR 340-035-0035(1)(b)(iii)(III) the noise levels 11 from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by 12 more than 10 dBA (but not above the limits specified in Table 2, above), if the person who owns 13 the noise sensitive property executes a legally effective easement or real covenant. 14 15 The facility was originally approved as a wind facility, where even with the addition of solar facility components, the Council has continued to apply the noise requirements for a wind 16 17 facility, rather than apply different requirements to different facility components. The 18 Montague Solar Facility, as proposed in RFA5, would include shared wind facility components. If 19 exceedances of the ambient antidegradation standard are predicted, the certificate holder may comply with the standard by obtaining a waiver from the landowner. If the Montague Solar 20 21 Facility does not share wind facility components by the established 2022 construction deadline, at the time of a future site certificate amendment request, - if wind facility components are not 22 23 proposed or shared — the certificate holder would no longer be able to use an assumed 26 dBA ambient noise level or use a waiver for predicted exceedances, and would be required to 24
- comply with OAR 340-035-0035(1)(b)(B)(ii), for commercial and industrial noise sources.
 26
- 27 Council previously imposed Condition 107, as described below, to confirm that the final facility
- design meets the DEQ noise regulations prior to construction. Condition 107 requires the
- 29 certificate holder to provide the Department with copies of executed easements or real
- 30 covenants to demonstrate compliance with the noise control regulation for noise increases
- estimated to be 10 dBA or more above 26 dBA, based on a pre-construction final design noise
 analysis, at identified noise sensitive receptors. Therefore, to demonstrate compliance with the
- 33 DEQ noise rules during operation the facility, with proposed RFA5 modifications, the certificate
- holder must either negotiate and execute legally effective easements or real covenants with
- 35 the affected property owners authorizing the facility to increase the ambient statistical noise
- 36 levels more than 10 dBA; or, in the alternative, the certificate holder must change the layout,
- utilize noise reducing technology such as acoustic barrier walls; secondary enclosures, lagging,
- 38 silencing, or acoustically designed buildings; or reduce the number of noise generating facility-
- components to reduce the noise levels to levels that would not exceed the ambient noise
- 40 degradation limit.
- 41
- 42
- 43

1 Maximum Allowable Standard

2

3 The maximum allowable noise standard requires a demonstration that noise generated during

4 facility operation must not exceed the hourly statistical noise level of 50 dBA. Modeling results

- 5 of the facility, with proposed RFA5 modifications, result in a maximum noise level of 40 dBA,
- 6 which would be below the standard. Council previously imposed Condition 107 requiring that,
- 7 prior to construction, the certificate holder submit to the Department a noise assessment
- based on final facility design and layout, using the maximum sound power level for all noise
 generating equipment. Council previously imposed Condition 108 requiring that the certificate
- holder implement a noise complaint program and provide landowners notification of the
- 11 availability of the facility noise compliant program.
- 12

13 Conclusions of Law

14

15 Based on the recommended foregoing findings, the Department recommends that the Council

- 16 find that based upon compliance with existing conditions the facility, with proposed RFA5
- 17 modifications, would continue to comply with the Noise Control Regulations in OAR 340-035-
- 18 0035(1)(b)(B).
- 19

20 III.A.10.2 Removal-Fill

21

The Oregon Removal-Fill Law (ORS 196.795 through 196.990) and Department of State Lands (DSL) regulations (OAR 141-085-0500 through 141-085-0785) require a removal-fill permit if 50 cubic yards or more of material is removed, filled, or altered within any "waters of the state."³⁸ The Council, in consultation with the Oregon Department of State Lands (DSL), must determine

- whether a removal-fill permit is needed and if so, whether a removal-fill permit should be issued.
- 27

29 Findings of Fact

30

In RFA5, the certificate holder proposes to expand the solar micrositing area by approximately

- 1,535 acres. The entirety of the proposed expansion area was surveyed through desktop
- 33 analysis or field methods. Based on desktop and field surveys, there are no jurisdictional waters
- 34 located within the expansion area. Previous field surveys were incorporated into wetland
- 35 delineation reports previously reviewed and concurred by the Oregon Department of State
- 36 Lands (DSL) (WD#2017-0111, WD#2011-0364R, WD#2018-0597, and WD#2018-0660). RFA5
- 37 Figure 10 shows areas previously surveyed for wetlands and waters. The proposed alternate
- 38 230-kV transmission line route and portions of the proposed expanded solar micrositing area
- 39 were surveyed in 2017 (WD#2017-0111). The certificate holder identifies that approximately
- 40 394 of 1,535 acres have not been field surveyed, as shown in RFA5 Figure 10, but were
- 41 included in the desktop survey evaluating the state's jurisdictional waters database.

³⁸ ORS 196.800(15) defines "Waters of this state." The term includes wetlands and certain other waterbodies.

- 1 Based on desktop and field surveys, the certificate holder identifies that the proposed
- 2 expanded solar micrositing area would not impact or be located on or within jurisdictional
- 3 waters of the state and therefore would not require a removal-fill permit. Council previously
- 4 imposed Condition 83, requiring that, prior to construction, the certificate holder conduct
- 5 wetland surveys in any unsurveyed area, which would continue to apply. In certain
- 6 circumstances, the Council may allow for site certificates to include conditions deferring a
- 7 survey requirement particularly in areas considered unlikely to contain jurisdictional waters of
- 8 the state given current land use practices. Compliance with Condition 83 ensures unsurveyed
- 9 areas are surveyed prior to construction and that concurrence from DSL is obtained to verify
- accurate identification of jurisdictional waters, and avoidance unless removal-fill permit is
 obtained.
- 12

13 Conclusions of Law

- 14
- 15 Based on the foregoing findings of fact and conclusions, the Department recommends that the
- 16 Council find that a removal-fill permit is not needed for the facility, with proposed RFA5
- 17 modifications.

18 III.B. Standards Not Likely to Be Impacted by Request for Amendment 5

- 19
- 20 RFA5, as described throughout this order, requests authorization to split, and share some, previously approved facility components within previously approved site boundary, but 21 22 redefined based on specific facility components covered in each site certificate. Based on the 23 largely administrative nature of the amendment request, with the exception of substantive 24 changes evaluated in Section III.A. Standards Potential Impacted by Request for Amendment 5, 25 the Department recommends Council find that the Council's findings on the record of the EFSC 26 proceedings for the Montague Wind Power Facility from 2010-2019 would not be impacted for 27 the standards listed below. 28 Sections III.B.1 through III.B.9 present the language of the identified standards and other 29 30 applicable laws and regulations not likely to be impacted by RFA5, for reference purposes only. 31 III.B.1 Structural Standard: OAR 345-022-0020 32 33 (1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council 34 must find that: 35 36 (b) The applicant, through appropriate site-specific study, has adequately characterized 37 the seismic hazard risk of the site; 38 39 (c) The applicant can design, engineer, and construct the facility to avoid dangers to 40 human safety and the environment presented by seismic hazards affecting the site, 41 42 as identified in subsection (1)(a);

1	
2	(d) The applicant, through appropriate site-specific study, has adequately characterized
3	the potential geological and soils hazards of the site and its vicinity that could, in the
4	absence of a seismic event, adversely affect, or be aggravated by, the construction
5	and operation of the proposed facility; and
6	
7	(e) The applicant can design, engineer and construct the facility to avoid dangers to
8	human safety and the environment presented by the hazards identified in subsection
9	(c).
10	
11	(2) The Council may not impose the Structural Standard in section (1) to approve or deny an
12	application for an energy facility that would produce power from wind, solar or
13	geothermal energy. However, the Council may, to the extent it determines appropriate,
14	apply the requirements of section (1) to impose conditions on a site certificate issued for
15	such a facility.
16	
17	(3) The Council may not impose the Structural Standard in section (1) to deny an application
18	for a special criteria facility under OAR 345-015-0310. However, the Council may, to the
19	extent it determines appropriate, apply the requirements of section (1) to impose
20	conditions on a site certificate issued for such a facility.
21	
22	III.B.2 Protected Areas: OAR 345-022-0040
23	
24	(1) Except as provided in sections (2) and (3), the Council shall not issue a site certificate
25	for a proposed facility located in the areas listed below. To issue a site certificate for a
26	proposed facility located outside the areas listed below, the Council must find that,
27	taking into account mitigation, the design, construction and operation of the facility are
28	not likely to result in significant adverse impact to the areas listed below. References in
29	this rule to protected areas designated under federal or state statutes or regulations are
30	to the designations in effect as of May 11, 2007:
31	
32	(a) National parks, including but not limited to Crater Lake National Park and Fort
33	Clatsop National Memorial;
34	
35	(b) National monuments, including but not limited to John Day Fossil Bed National
36	Monument, Newberry National Volcanic Monument and Oregon Caves National
37	Monument;
38	
39	(c) Wilderness areas established pursuant to The Wilderness Act, 16 U.S.C. 1131 et
40	seq. and areas recommended for designation as wilderness areas pursuant to 43
41	U.S.C. 1782;
42	

1	(d) National and state wildlife refuges, including but not limited to Ankeny, Bandon
2	Marsh, Baskett Slough, Bear Valley, Cape Meares, Cold Springs, Deer Flat, Hart
3	Mountain, Julia Butler Hansen, Klamath Forest, Lewis and Clark, Lower Klamath,
4	Malheur, McKay Creek, Oregon Islands, Sheldon, Three Arch Rocks, Umatilla, Upper
5	Klamath, and William L. Finley;
6	
7	(e) National coordination areas, including but not limited to Government Island,
8	Ochoco and Summer Lake;
9	
10	(f) National and state fish hatcheries, including but not limited to Eagle Creek and
11	Warm Springs;
12	
13	(a) National recreation and scenic areas, including but not limited to Oregon Dunes
14	National Recreation Area. Hell's Canvon National Recreation Area, and the Oreaon
15	Cascades Recreation Area, and Columbia River Gorae National Scenic Area:
16	
17	(h) State parks and waysides as listed by the Oregon Department of Parks and
18	Recreation and the Willamette River Greenway:
19	
20	(i) State natural heritage areas listed in the Oregon Register of Natural Heritage
21	Areas pursuant to ORS 273.581:
22	
23	(i) State estuarine sanctuaries. includina but not limited to South Slouah Estuarine
24	Sanctuary, OAR Chapter 142;
25	
26	(k) Scenic waterways designated pursuant to ORS 390.826, wild or scenic rivers
27	designated pursuant to 16 U.S.C. 1271 et seg., and those waterways and rivers listed
28	as potentials for designation;
29	
30	(I) Experimental areas established by the Rangeland Resources Program, College of
31	Agriculture, Oregon State University: the Prineville site, the Burns (Squaw Butte) site,
32	the Starkey site and the Union site;
33	
34	(m) Agricultural experimental stations established by the College of Agriculture,
35	Oregon State University, including but not limited to: Coastal Oregon Marine
36	Experiment Station, Astoria Mid-Columbia Agriculture Research and Extension
37	Center, Hood River Agriculture Research and Extension Center, Hermiston Columbia
38	Basin Agriculture Research Center, Pendleton Columbia Basin Agriculture Research
39	Center, Moro North Willamette Research and Extension Center, Aurora East Oregon
40	Agriculture Research Center, Union Malheur Experiment Station. Ontario Eastern
41	Oregon Agriculture Research Center, Burns Eastern Oregon Agriculture Research
42	Center, Squaw Butte Central Oregon Experiment Station, Madras Central Oregon
43	Experiment Station, Powell Butte Central Oregon Experiment Station, Redmond

1	Central Station, Corvallis Coastal Oregon Marine Experiment Station, Newport
2	Southern Oregon Experiment Station, Medford Klamath Experiment Station, Klamath
3	Falls;
4	
5	(n) Research forests established by the College of Forestry, Oregon State University,
6	including but not limited to McDonald Forest, Paul M. Dunn Forest, the Blodgett
7	Tract in Columbia County, the Spaulding Tract in the Mary's Peak area and the
8	Marchel Tract;
9	
10	(o) Bureau of Land Management areas of critical environmental concern,
11	outstanding natural areas and research natural areas;
12	
13	(p) State wildlife areas and management areas identified in OAR chapter 635,
14	DIVISION 8.
15 16	(2) The provisions of section (1) do not apply to transmission lines or natural app
10 17	(3) The provisions of section (1) do not apply to transmission lines of natural gas
10 10	transmission line with a voltage rating of 115 kilovolts or higher or containing at least
19	one natural as nineline of 8 inches or areater diameter that is operated at a pressure of
20	125 nsia
21	
22	III.B.3 Threatened and Endangered Species: OAR 345-022-0070
23	
24	To issue a site certificate, the Council, after consultation with appropriate state agencies,
25	must find that:
26	
27	(1) For plant species that the Oregon Department of Agriculture has listed as
28	threatened or endangered under ORS 564.105(2), the design, construction and
29	operation of the proposed facility, taking into account mitigation:
30	
31	(a) Are consistent with the protection and conservation program, if any, that the
32	Oregon Department of Agriculture has adopted under ORS 564.105(3); or
33	(h) If the Queen Department of April 11 we have not adopted a protoction and
34 25	(b) If the Oregon Department of Agriculture has not adopted a protection and
35	conservation program, are not likely to cause a significant reduction in the
30 27	incentiood of survival of recovery of the species, and
3/ 20	(2) For wildlife species that the Oregon Fish and Wildlife Commission has listed as
30 20	(2) For which be species that the Oregon Fish and which be design construction and threatened or endangered under ORS 196 172(2), the design construction and
40	operation of the proposed facility taking into account mitigation are not likely to
ru	
41	cause a significant reduction in the likelihood of survival or recovery of the species

1	III.B.4 Scenic Resources: OAR 345-022-0080
2	(1) Except for facilities described in section (2) to issue a site certificate, the Council
2 2	must find that the design construction and operation of the facility taking into
5	account mitiaation, are not likely to result in significant adverse impact to scenic
6	resources and values identified as significant or important in local land use plans.
7	tribal land management plans and federal land management plans for any lands
8	located within the analysis area described in the project order.
9	
10 11	III.B.5 Recreation: OAR 345-022-0100
12	(1) Except for facilities described in section (2), to issue a site certificate, the Council must
13	find that the design, construction and operation of a facility, taking into account
14	mitigation, are not likely to result in a significant adverse impact to important
15	recreational opportunities in the analysis area as described in the project order. The
16	Council shall consider the following factors in judging the importance of a recreational
17	opportunity:
18	
19	(a) Any special designation or management of the location;
20	(b) The degree of demand;
21	(c) Outstanding or unusual qualities;
22	(d) Availability or rareness;
23	(e) Irreplaceability or irretrievability of the opportunity.
24	***39
25	In RFA5, the certificate holder requests to remove Condition 105 from the Montague Solar
26	Facility and Oregon Trail Solar Facility site certificates. Condition 105 was imposed in the
27	Council's Final Order on the ASC, establishing a setback requirement to minimize visual impacts
28	from wind facility components, including wind turbines and meteorological towers, to the
29	Fourmile Canyon Interpretative Site. Condition 105 establishes a 1,000 foot setback from a
30	specific location, based on latitude and longitude, which, based on the approved wind and
31	proposed expanded and new solar micrositing area, would no longer apply based on separating
32	Council administratively remove Condition 105 from the Montague Solar Facility and Oregon
33 24	Trail Solar Facility site certificates, as presented below
34 35	Trail Solar Facility site certificates, as presented below.
36	Montaaue Solar Facility and Oreaon Trail Solar Facility
37	
38	Recommended Deleted Condition 105: The certificate holder shall maintain a minimum
39	distance of 1,000 feet measured from the centerline of each turbine tower or
40	meteorological tower to the centerline of the line-of-sight from the vantage point of the
41	Fourmile Canyon interpretive site looking toward the visible Oregon Trail ruts (bearing S

³⁹ RFA4 facility components do not represent a special criteria facility under OAR 345-0015-0310; therefore, OAR 345-022-0100(2) is not applicable.

1	89-42-34 W from latitude, longitude: 45.622047, -120.044112) as described in the Final
2	Order on the Application.
3	[Final Order on ASC; AMD5]
4	
5	III.B.6 Waste Minimization: OAR 345-022-0120
6	
7	(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council
8	must find that, to the extent reasonably practicable:
9	
10	(b) The applicant's solid waste and wastewater plans are likely to minimize generation
11	of solid waste and wastewater in the construction and operation of the facility, and
12	when solid waste or wastewater is generated, to result in recycling and reuse of such
13	wastes;
14	(c) The applicant's plans to manage the accumulation, storage, disposal and
15	transportation of waste generated by the construction and operation of the facility
16	are likely to result in minimal adverse impact on surrounding and adjacent areas.
17	
18	(2) The Council may issue a site certificate for a facility that would produce power from
19	wind, solar or geothermal energy without making the findings described in section (1).
20	However, the Council may apply the requirements of section (1) to impose conditions on
21	a site certificate issued for such a facility.
22	***
23	III.B.7 Public Health and Safety Standards for Wind Energy Facilities: OAR 345-024-0010
24	
25	To issue a site certificate for a proposed wind energy facility, the Council must find that the
26	applicant:
27	
28	(1) Can design, construct and operate the facility to exclude members of the public from
29	close proximity to the turbine blades and electrical equipment.
30	(2) Can design construct and exercise the facility to produce structural failure of the
31	(2) Can design, construct and operate the facility to preciude structural failure of the
32	tower or blades that could endanger the public safety and to have adequate safety
33	aevices and testing procedures designed to warn of impending failure and to
34	minimize the consequences of such failure.
35	
36	III.B.8 Cumulative Effects Standard for Wind Energy Facilities [OAR 345-024-0015]
3/	To issue a site postificate for a present wind ensure facility, the Council must find that the
38 20	To issue a site certificate for a proposed wind energy facility, the Council must find that the
39	applicant can design and construct the facility to reduce cumulative daverse environmental
4U 41	ejjects in the vicinity by practicable measures including, but not innited to, the following:
41	

- (1) Using existing roads to provide access to the facility site, or if new roads are needed,
 minimizing the amount of land used for new roads and locating them to reduce adverse
 environmental impacts.
- 4 (2) Using underground transmission lines and combining transmission routes.
- 5 (3) Connecting the facility to existing substations, or if new substations are needed,
- 6 *minimizing the number of new substations.*
- 7 (4) Designing the facility to reduce the risk of injury to raptors or other vulnerable wildlife
 8 in areas near turbines or electrical equipment.
- 9 (5) Designing the components of the facility to minimize adverse visual features.
- 10 (6) Using the minimum lighting necessary for safety and security purposes and using
- 11 techniques to prevent casting glare from the site, except as otherwise required by the
- 12 Federal Aviation Administration or the Oregon Department of Aviation.
- 13

III.B.9 Water Rights

- 14 15
- 16 Under ORS Chapters 537 and 540 and OAR Chapter 690, the Oregon Water Resources
- 17 Department (OWRD) administers water rights for appropriation and use of the water resources
- of the state. Under OAR 345-022-0000(1)(b), the Council must determine whether the
- 19 proposed RFA4 facility components would comply with these statutes and administrative rules.
- 20 OAR 345-021-0010(1)(o)(F) requires that if a facility, or proposed facility modification
- 21 necessitates a groundwater permit, surface water permit, or water right transfer, that a
- 22 decision on authorizing such a permit rests with the Council.
- 23

24 IV. PROPOSED CONCLUSIONS AND ORDER

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Based on the recommended findings and conclusions included in this order, the Department
 recommends that Council make the following findings:

- The proposed facility modifications included in Request for Amendment 5 of the
 Montague Wind Power Facility site certificate complies with the requirements of the
 Oregon Energy Facility Siting Statutes, ORS 469.300 to 469.520.
 - The proposed facility modifications included in Request for Amendment 5 of the Montague Wind Power Facility site certificate complies with the standards adopted by the Council pursuant to ORS 469.501.
- The proposed facility modifications included in Request for Amendment 5 of the
 Montague Wind Power Facility site certificate complies with all other Oregon
 statutes and administrative rules identified in the project order as applicable to the
 issuance of a site certificate for the proposed facility.
- 41
- Accordingly, the Department recommends that the Council find that the proposed facility
 modifications included in Request for Amendment 5 of the Montague Wind Power Facility site

- 1 certificate complies with the General Standard of Review (OAR 345-022-0000). The Department
- 2 recommends that the Council find, based on a preponderance of the evidence on the record,
- 3 that the site certificate may be amended as requested.

1 Proposed Order

- 2
- 3 The Department recommends that the Council approve Amendment 5 of the Montague Wind
- 4 Power Facility site certificate.
- 5

Issued this 30th day of July 2020

The OREGON DEPARTMENT OF ENERGY

By:

Todd Cornett, Assistant Director Oregon Department of Energy, Energy Facility Siting Division

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1	Attachments:
2	Attachment A Draft Site Certificates
3	Draft Amended Montague Wind Facility Site Certificate
4	Draft Montague Solar Facility Site Certificate
5	Draft Oregon Trail Solar Facility Site Certificate
6	Comparison Table of Site Certificate Conditions (to be included in Proposed Order)
7	
8	Attachment B
9	Reviewing Agency Comments on preliminary Request for Amendment 5
10	
11	<u>Attachment C</u>
12	[Reserved for Draft Proposed Order Index/Comments/Index]
13	
14	Attachment D Draft Amended Habitat Mitigation Plans
15	Draft Amended Montague Wind Facility Habitat Mitigation Plan
16	Draft Montague Solar Facility Habitat Mitigation Plan
17	Draft Oregon Trail Solar Facility Habitat Mitigation Plan
18	
19	Attachment E Draft Amended Revegetation Plans
20	Draft Amended Montague Wind Facility Revegetation Plan
21	Draft Montague Solar Facility Revegetation Plan
22	Draft Oregon Trail Solar Facility Revegetation Plan
23	Attackment C. Droft Mand Control Diana
24 25	Attachment F Draft Weed Control Plans
25	Draft Mended Montague Wind Facility Weed Control Plan
26	Draft Montague Solar Facility Weed Control Plan
27	Draft Oregon Trail Solar Facility weed Control Plan
28	Attachment C. Droft Amended Wildlife Menitoring and Mitigation Dlanc
29	Attachment G Drait Amended Wildlife Monitoring and Mitigation Plans
3U 21	Draft Montague Solar Escility Wildlife Monitoring and Mitigation Plan
51 57	Draft Orogon Trail Solar Eacility Wildlife Monitoring and Mitigation Plan
52 22	
21	Attachment H Cultural, Historic and Archeological Resource Mitigation Plans
25 25	Attachment in Cultural, historic and Archeological Resource Mitigation Flans
32	Draft Amended Montague Solar Facility Historic Properties Management Plan
30	Draft Amended Montague Solar Facility Historie Froperties Management Han
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20	
40	
41	

ENERGY FACILITY SITING COUNCIL

OF THE

STATE OF OREGON

FourthFifth Amended Site Certificate

for the

Montague Wind Power Facility

August 23, 2019

The Oregon Energy Facility Siting Council

I. INTRODUCTION

The Oregon Energy Facility Siting Council (Council) issues this <u>amended</u> site certificate for the Montague
Wind Power Facility (the facility) in the manner authorized under ORS Chapter 469. This site certificate is
a binding agreement between the State of Oregon (State), acting through the Council, and Montague
Wind Power Facility LLC (certificate holder), <u>a wholly owned subsidiary of Avangrid Renewables, LLC</u>
(parent company) authorizing the certificate holder to construct and operate the facility in Gilliam
County, Oregon. [Amendment #3] 4]

8 The findings of fact, reasoning and conclusions of law underlying the terms and conditions of this
9 <u>amended</u> site certificate are set forth in the following documents, incorporated herein by this reference:
10 (a) the Final Order on the Application for Site Certificate for the Montague Wind Power Facility issued on

- September 10, 2010 (hereafter, Final Order on the Application), (b) the Final Order on Amendment #1
- 12 issued on June 21, 2013; and, (c) the Final Order on Amendment #2 issued on December 4, 2015; (d) the 13 Final Order on Amendment #3 issued on July 11, 2017; and (e) the Final Order on Amendment #4 issued
- 13 on August 23, 2019; and (f) the Final Order on Amendment #5 issued on TBD, 2020. In interpreting this
- 15 site certificate, any ambiguity will be clarified by reference to the following, in order of priority: (1) this
- 16 FourthFifth Amended Site Certificate, (2) the Final Order on Amendment #45, (3) the Final Order on
- 17 Amendment #34, (4) the Final Order on Amendment #23, (5) the Final Order on Amendment #1#2, (6)
- 18 the Final Order on Amendment #1, (7) the Final Order on the Application, and (7(8) the record of the
- 19 proceedings that led to the Final Order on the Application, the Final Order on Amendment #1, and the
- 20 Final Order on Amendment #2; Final Order on Amendment #3; Final Order on Amendment #4; and the
- 21 Final Order on Amendment #5. [Amendment #2]
- 22 As authorized in Final Order on Amendment #5, the Montague Wind Power Facility certificate holder
- 23 obtained approval to split the Montague Wind Power Facility site certificate into three site certificates –
- 24 Montague Wind Power Facility, Montague Solar Facility and Oregon Trail Solar Facility. Each of these
- 25 certificate holders is a wholly owned subsidiary and LLC created by Avangrid Renewables, LLC resulting
- 26 in each certificate holder owned by the same parent company. In addition, these facilities share facility
- 27 components, interconnecting facility components and long-term operation.
- 2829 Because the findings of fact, reasoning and conclusions of law ur
- 29 Because the findings of fact, reasoning and conclusions of law underlying the terms and conditions of 30 the site certificate are set forth in the 2010 Final Order on the Application for Site Certificate and
- 31 subsequent Final Orders on Requests for Amendment 1 through 5 for the Montague Wind Power
- 32 Facility, which are incorporated by reference into the site certificate, these underlying findings, including
- 32 any findings establishing the predevelopment condition of the site and impacts of approved facility
- 34 components continue to have bearing on the analysis and findings required to approve any future
- 35 changes to the site certificates for the successor facilities. In other words, environmental impacts
- 36 evaluated in future site certificate amendment requests shall be based on 2010 predevelopment
- 37 conditions and the incremental change in environmental impact based on the original site certificate
- 38 application review and subsequent amendments to the Montague Wind Power Facility site certificate,
- 39 <u>either as approved or in operation, at the time of the amendment request. This clarification is intended</u>
- 40 to establish that, with the splitting of facility components under three site certificates, baseline
- 41 conditions and environmental impacts shall not adjusted in a way that results in greater overall impacts
- 42 than the level of impacts that would be authorized under one site certificate.
- 43

1 The definitions in ORS 469.300 and OAR 345-001-0010 apply to terms used in this site certificate, except 2 where otherwise stated or where the context clearly indicates otherwise.

II. SITE CERTIFICATION

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- 3(a)To the extent authorized by state law and subject to the conditions set forth herein, the4State authorizes the certificate holder to construct, operate and retire a wind and5photovoltaic (PV) solar energy facility, together with certain related or supporting6facilities, at the site in Gilliam County, Oregon, as described in Section III of this site7certificate. ORS 469.401(1). [ASC; AMD4; AMD5]
 - (b) This site certificate is effective until it is terminated under OAR 345-027-0110 or the rules in effect on the date that termination is sought or until the site certificate is revoked under ORS 469.440 and OAR 345-029-0100 or the statutes and rules in effect on the date that revocation is ordered. ORS 469.401(1).
- 12 (c) This site certificate does not address, and is not binding with respect to, matters that 13 were not addressed in the Final Order on the Application, Final Order on Amendment #1 14 Final Order on Amendment #2, Final Order on Amendment #3, Final Order on 15 Amendment #4, and Final Order on Amendment #45. Such matters include, but are not 16 limited to: building code compliance, wage, hour and other labor regulations, local 17 government fees and charges and other design or operational issues that do not relate 18 to siting the facility (ORS 469.401(4)) and permits issued under statutes and rules for 19 which the decision on compliance has been delegated by the federal government to a 20 state agency other than the Council. 469.503(3). [ASC; AMD1; AMD2; AMD3; AMD4; 21 AMD5
 - (d) Both the State and the certificate holder shall abide by local ordinances, state law and the rules of the Council in effect on the date this site certificate is executed. ORS 469.401(2). In addition, upon a clear showing of a significant threat to public health, safety or the environment that requires application of later-adopted laws or rules, the Council may require compliance with such later-adopted laws or rules. ORS 469.401(2).
- (e) For a permit, license or other approval addressed in and governed by this site
 certificate, the certificate holder shall comply with applicable state and federal laws
 adopted in the future to the extent that such compliance is required under the
 respective state agency statutes and rules. ORS 469.401(2).
- 31(f)Subject to the conditions herein, this site certificate binds the State and all counties,32cities and political subdivisions in Oregon as to the approval of the site and the33construction, operation and retirement of the facility as to matters that are addressed in34and governed by this site certificate. ORS 469.401(3).
- 35(g)Each affected state agency, county, city and political subdivision in Oregon with36authority to issue a permit, license or other approval addressed in or governed by this37site certificate shall, upon submission of the proper application and payment of the38proper fees, but without hearings or other proceedings, issue such permit, license or39other approval subject only to conditions set forth in this site certificate. ORS40469.401(3).

- 1(h)After issuance of this site certificate, each state agency or local government agency that2issues a permit, license or other approval for the facility shall continue to exercise3enforcement authority over such permit, license or other approval. ORS 469.401(3).
- 4(i)After issuance of this site certificate, the Council shall have continuing authority over5the site and may inspect, or direct the Oregon Department of Energy (Department) to6inspect, or request another state agency or local government to inspect, the site at any7time in order to ensure that the facility is being operated consistently with the terms8and conditions of this site certificate. ORS 469.430.
- 9(j)Following the completion of pre-construction surveys required by this site certificate,10the Department will present the results of those surveys and required consultations at11the next regularly scheduled Council meeting. [AMD2]

III. DESCRIPTION

12 **1.** The Facility

13 (a) The Energy Facility

- 14 The Montague Wind Power Facility is an electric power generating plant developed in two phases, Phase
- 15 **<u>1 and Phase 2. Phase 1 consists consisting</u> of 56 wind turbines, each consisting of a nacelle, a three-**
- 16 bladed rotor, turbine tower and foundations. The nacelle houses the equipment such as the gearbox,
- 17 generator, brakes, and control systems for the turbines.
- 18 Phase 2 is approved to consist of a combination of up to 81 wind turbines and a solar photovoltaic array
- 19 on up to 1, 189 acres. The solar array would be composed of solar modules, which are themselves
- 20 composed of either mono-crystalline or poly-crystalline cells. In addition to the solar modules, the array
- 21 would also include a tracker system to allow the solar modules to follow the path of the sun throughout
- 22 the day; cables; inverters; and transformers. The solar array would be connected to the power collection
- 23 system as described below. The energy facility is described further in the Final Order on the Application,
- Final Order on Amendment #1, Final Order on Amendment #2, Final Order on Amendment #3, and the
- 25 Final Order on Amendment #4, and Final Order on Amendment #5.

26 (b) Related or Supporting Facilities

- The facility includes the following related or supporting facilities described below and in greater detail in
 the Final Order on the Application, Final Order on Amendment #1, Final Order on Amendment #2, Final
 Order on Amendment #3, and the Final Order on Amendment #4, and Final Order on Amendment #5:
- 30 Power collection system
- Control system

32

- <u>Collector s</u>-ubstations and 230-kV transmission lines
- 33 Battery storage system
- Meteorological towers
 - Operations and maintenance facilities(O&M) building

- 1 Access roads
- 2 Public roadway modifications
 - Temporary construction areas

4 <u>Power Collection System</u>

- 5 A power collection system operating at 34.5 kilovolts (kV) transports power from each turbine to a
- 6 collector substation. To the extent practicable, the collection system is installed underground at a depth
- 7 of at least three fedfeet. Not more than 27 miles of the collector system is installed aboveground.

8 <u>Control System</u>

3

- 9 A fiber optic communications network links the wind turbines to a central computer at the Montague
- 10 <u>Wind O&M buildingsbuilding</u>. A Supervisory, Control and Data Acquisition (SCADA) system collects
- 11 operating and performance data from each wind turbine and from the facility as a whole and allows
- 12 remote operation of the wind turbines. <u>The control system is shared with the Montague Solar facility</u>
- 13 and the Oregon Trail Solar facility.

14 Collector Substations and 230-kV Transmission Lines

- 15 The facility includes two collector substations, one associated with Phase 1, a substation ("Montague
- 16 <u>Wind substation"</u>) and the second associated with Phase 2. Anan aboveground, single-circuit 230-kV
- 17 transmission line connects the Phase 2 substation to the Phase 1 substation. An aboveground, single-
- 18 circuit 230-kV transmission linethat connects the Montague Wind substation to the 500-kV Slatt-Buckley
- 19 transmission line owned by the Bonneville Power Administration (BPA) at the Slatt substation. <u>The</u>
- 20 Montague Wind substation and aboveground, single-circuit 230-kV transmission line are shared with the
- 21 Montague Solar facility, and the Oregon Trail Solar facility.

22 Battery Storage

- 23 Phase 2 is approved to include a battery storage system. The battery storage system would be capable
- 24 of storing up to 100 MW of wind or solar energy generated by the Facility, and would be used to
- 25 stabilize the wind or solar resource through dispatching of energy stored in the battery system. The
- 26 battery system is placed in a series of containers or building located near the Phase 2 substation.
- The battery system would be composed of either lithium ion (Li ion) batteries or a flow battery. Lithium ion batteries are a solid state rechargeable battery utilizing lithium ions in an electrolyte. Flow batteries
- 29 are composed of a variety of different technologies; however, all flow batteries dispatch electricity by
- 30 allowing the migration of electrons from a positive ion tank to a negative ion tank. The electrons migrate
- 31 between solutions via a membrane.

32 Meteorological Towers

33 The facility includes up to <u>eightfour</u> permanent meteorological towers.

1 **Operations and Maintenance Facilities**

- 2 The facility includes twoone operations and maintenance (O&M) facilities, one associated with building
- 3 ("Montague Wind and the second with Phase 2. O&M building"). An on-site well at eachthe Montague
- 4 <u>Wind O&M facilitybuilding</u> supplies water for use during facility operation. Sewage is discharged to an
- 5 <u>Oregon Department of Environmental Quality (DEQ)-permitted</u> on-site septic system.

6 Access Roads

- 7 The facility includes access roads to provide access to the turbine strings, solar array, battery storage
- 8 system and other and related or supporting components.

9 Public Roadway Modifications

- 10 The certificate holder may construct improvements to existing state and county public roads that are
- 11 necessary for construction of the facility. These modifications would be confined to the existing road
- 12 rights-of-way and would be undertaken with the approval of the Gilliam County Road Department or the
- 13 Oregon Department of Transportation, depending on the location of the improvement.

14 **Temporary Construction Areas**

- 15 During construction, the facility includes temporary laydown areas used to stage construction and store
- 16 supplies and equipment. Construction crane paths are used to move construction cranes between
- 17 turbine strings.

18 (c) Shared Related or Supporting Facilities

- 19 The site certificates for the Montague Wind Power Facility, Montague Solar Facility and Oregon Trail
- 20 Solar Facility were originally approved as one site certificate for the Montague Wind Power Facility
- 21 (September 2010 September 2019). In XX 2020, facility components were split or allocated into three
- 22 <u>separate site certificates, but identified that certain related or supporting facilities would be shared or</u>
- 23 used by each facility. Sharing of facility components, or use by multiple facilities, is allowable in the EFSC
- 24 process when the compliance obligation and applicable regulatory requirements for the shared facilities
- is adequately covered under each site certificate, including under normal operational circumstances,
 ceasing/termination of operation, emergencies and compliance issues or violations.
- 26 27
- 28 The certificate holder is authorized to share related or supporting facilities between the Montague Wind
- 29 Power Facility, Montague Solar Facility and Oregon Trail Solar Facility, including the Montague Wind
- 30 collector substation, 230 kV transmission line, temporary laydown areas, and access roads. These
- 31 related or supporting facilities are included in each site certificate. Compliance responsibility with site
- 32 certificate conditions and EFSC standards which apply to these shared related or supporting facilities are
- 33 <u>shared between site certificates and certificate holders. In accordance with Condition 118, if any</u>
- 34 certificate holder substantially modifies a shared related or supporting facility or ceases facility
- 35 operation, each certificate holder would be obligated to submit an amendment determination request
- 36 or request for amendment to the Department to determine the appropriate process for evaluating the
- 37 <u>change and ensuring full regulatory coverage under each site certificate, or remaining site certificate if</u>
- 38 <u>either is terminated, in the future. Additionally, each certificate holder is obligated to demonstrate to</u>
- 39 the Department that a legally binding agreement has been fully executed between certificate holders to

ensure approval and agreement of access to the shared resources has been obtained prior to operation
 of shared facilities.

3 **2.** Location of the Facility

4 The facility is located south of Arlington, in Gilliam County, Oregon. The facility is located on private land 5 subject to easements or lease agreements with landowners.

IV. CONDITIONS REQUIRED BY COUNCIL RULES

- 6 This section lists conditions required by OAR 345-025-0006 (Mandatory Conditions in Site Certificates),
- 7 OAR 345-025-0010 (Site Specific Conditions), OAR 345-025-0016 (Monitoring and Mitigation Conditions)
- 8 and OAR Chapter 345, Division 26 (Construction and Operation Rules for Facilities). These conditions
- 9 should be read together with the specific facility conditions listed in Section V to ensure compliance with
- 10 the siting standards of OAR Chapter 345, Divisions 22 and 24, and to protect the public health and
- 11 safety. In these conditions the definitions in OAR 345-001-0010 apply.
- 12 The obligation of the certificate holder to report information to the Oregon Department of Energy
- 13 (Department) or the Council under the conditions listed in this section and in Section V is subject to the
- 14 provisions of ORS 192.502 et seq. and ORS 469.560. To the extent permitted by law, the Department
- 15 and the Council will not publicly disclose information that may be exempt from public disclosure if the
- 16 certificate holder has clearly labeled such information and stated the basis for the exemption at the time
- 17 of submitting the information to the Department or the Council. If the Council or the Department
- 18 receives a request for the disclosure of the information, the Council or the Department, as appropriate,
- 19 will make a reasonable attempt to notify the certificate holder and will refer the matter to the Attorney
- 20 General for a determination of whether the exemption is applicable, pursuant to ORS 192.450.
- 21 In addition to these conditions, the site certificate holder is subject to all conditions and requirements
- 22 contained in the rules of the Council and in local ordinances and state law in effect on the date the
- 23 certificate is executed. Under ORS 469.401(2), upon a clear showing of a significant threat to the public
- 24 health, safety or the environment that requires application of later-adopted laws or rules, the Council
- 25 may require compliance with such later-adopted laws or rules.
- 26 The Council recognizes that many specific tasks related to the design, construction, operation and
- 27 retirement of the facility will be undertaken by the certificate holder's agents or contractors.
- 28 Nevertheless, the certificate holder is responsible for ensuring compliance with all provisions of the site
- 29 certificate.
- 301OAR 345-025-0006(1): The Council shall not change the conditions of the site certificate except31as provided for in OAR Chapter 345, Division 27.
- 322OAR 345-025-0006(2): The certificate holder shall submit a legal description of the site to the33Department of Energy within 90 days after beginning operation of the facility. The legal34description required by this rule means a description of metes and bounds or a description of35the site by reference to a map and geographic data that clearly and specifically identifies the36outer boundaries that contain all parts of the facility.
- 373OAR 345-025-0006-(3): The certificate holder shall design, construct, operate and retire the
facility:

1 (a) Substantially as described in the site certificate;

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- (b) In compliance with the requirements of ORS Chapter 469, applicable Council rules, and applicable state and local laws, rules and ordinances in effect at the time the site certificate is issued; and (c) In compliance with all applicable permit requirements of other state agencies.
- 64OAR 345-025-0006(4): The certificate holder shall begin and complete construction of the7facility by the dates specified in the site certificate. (See Conditions 24 and 25)
- 8 OAR 345-025-0006(5): Except as necessary for the initial survey or as otherwise allowed for wind 5 9 energy facilities, transmission lines or pipelines under this section, the certificate holder shall 10 not begin construction, as defined in OAR 345-001-0010, or create a clearing on any part of the 11 site until the certificate holder has construction rights on all parts of the site. For the purpose of 12 this rule, "construction rights" means the legal right to engage in construction activities. For 13 wind energy facilities, transmission lines or pipelines, if the certificate holder does not have 14 construction rights on all parts of the site, the certificate holder may nevertheless begin 15 construction, as defined in OAR 345-001-0010, or create a clearing on a part of the site if the 16 certificate holder has construction rights on that part of the site and:
- 17(a)The certificate holder would construct and operate part of the facility on that part of the18site even if a change in the planned route of the transmission line or pipeline occurs19during the certificate holder's negotiations to acquire construction rights on another20part of the site; or
- 21(b)The certificate holder would construct and operate part of a wind energy facility on that22part of the site even if other parts of the facility were modified by amendment of the23site certificate or were not built.
- 246OAR 345-025-0006(6): If the certificate holder becomes aware of a significant environmental25change or impact attributable to the facility, the certificate holder shall, as soon as possible,26submit a written report to the Department describing the impact on the facility and any affected27site certificate conditions. [AMD4]
- 287OAR 345-025-0006(7): The certificate holder shall prevent the development of any conditions on29the site that would preclude restoration of the site to a useful, non-hazardous condition to the30extent that prevention of such site conditions is within the control of the certificate holder.
- 318OAR 345-025-0006(8): Before beginning construction of the facility-or a phase of the facility, the32certificate holder shall submit to the State of Oregon, through the Council, a bond or letter of33credit, in a form and amount satisfactory to the Council to restore the site or a portion of the34site to a useful, non-hazardous condition. The certificate holder shall maintain a bond or letter35of credit in effect at all times until the facility or the phase of the facility-has been retired. The36Council may specify different amounts for the bond or letter of credit during construction and37during operation of the facility-or a phase of the facility.
- 389OAR 345-025-0006(9): The certificate holder shall retire the facility if the certificate holder39permanently ceases construction or operation of the facility. The certificate holder shall retire40the facility according to a final retirement plan approved by the Council, as described in OAR

- 1345-027-0110. The certificate holder shall pay the actual cost to restore the site to a useful, non-2hazardous condition at the time of retirement, notwithstanding the Council's approval in the3site certificate of an estimated amount required to restore the site.
- 410OAR 345-025-0006(10): The Council shall include as conditions in the site certificate all5representations in the site certificate application and supporting record the Council deems to be6binding commitments made by the applicant.
- 711OAR 345-025-0006(11): Upon completion of construction, the certificate holder shall restore
vegetation to the extent practicable and shall landscape all areas disturbed by construction in a
manner compatible with the surroundings and proposed use. Upon completion of construction,
the certificate holder shall remove all temporary structures not required for facility operation
and dispose of all timber, brush, refuse and flammable or combustible material resulting from
clearing of land and construction of the facility.
- 1312OAR 345-025-0006(12): The certificate holder shall design, engineer and construct the facility to14avoid dangers to human safety and the environment presented by seismic hazards affecting the15site that are expected to result from all maximum probable seismic events. As used in this rule16"seismic hazard" includes ground shaking, ground failure, landslide, liquefaction triggering and17consequences (including flow failure, settlement buoyancy, and lateral spreading, cyclic18softening of clays and silts, fault rupture, directivity effects and soil-structure interaction. For19coastal sites, this also includes tsunami hazards and seismically-induced subsidence. [AMD4]
- 2013OAR 345-025-0006(13): The certificate holder shall notify the Department, the State Building21Codes Division and the Department of Geology and Mineral Industries promptly if site22investigations or trenching reveal that conditions in the foundation rocks differ significantly23from those described in the application for a site certificate. After the Department receives the24notice, the Council may require the certificate holder to consult with the Department of Geology25and Mineral Industries and the Building Codes Division to propose and implement corrective or26mitigation actions.
- 2714OAR 345-025-0006(14): The certificate holder shall notify the Department, the State Building28Codes Division and the Department of Geology and Mineral Industries promptly if shear zones,29artesian aquifers, deformations or clastic dikes are found at or in the vicinity of the site. After30the Department receives notice, the Council may require the certificate holder to consult with31the Department of Geology and Mineral Industries and the Building Codes Division to propose32and implement corrective or mitigation actions. [AMD4]
- 3315OAR 345-025-0006(15): Before any transfer of ownership of the facility or ownership of the site34certificate holder, the certificate holder shall inform the Department of the proposed new35owners. The requirements of OAR 345-027-01000400 apply to any transfer of ownership that36requires a transfer of the site certificate.
- 3716OAR 345-025-0006(16): If the Council finds that the certificate holder has permanently ceased38construction or operation of the facility without retiring the facility according to a final39retirement plan approved by the Council, as described in OAR 345-027-0110, the Council shall40notify the certificate holder and request that the certificate holder submit a proposed final41retirement plan to the Department within a reasonable time not to exceed 90 days. If the42certificate holder does not submit a proposed final retirement plan by the specified date, the

1 Council may direct the Department to prepare a proposed final retirement plan for the Council's 2 approval. Upon the Council's approval of the final retirement plan, the Council may draw on the 3 bond or letter of credit described in OAR 345-027-0020(8) to restore the site to a useful, non-4 hazardous condition according to the final retirement plan, in addition to any penalties the 5 Council may impose under OAR Chapter 345, Division 29. If the amount of the bond or letter of 6 credit is insufficient to pay the actual cost of retirement, the certificate holder shall pay any 7 additional cost necessary to restore the site to a useful, non-hazardous condition. After 8 completion of site restoration, the Council shall issue an order to terminate the site certificate if 9 the Council finds that the facility has been retired according to the approved final retirement 10 plan.

11 <u>17</u> <u>OAR 35-027-0023(4)</u>:

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- 12 (a) The certificate holder shall design, construct and operate the transmission line in accordance
 13 with the requirements of the National Electrical Safety Code approved on June 3, 2011, by the
 14 American National Standards Institute, and
 - (b) The certificate holder shall develop and implement a program that provides reasonable assurance that all fences, gates, cattle guards, trailers, or other objects or structures of a permanent nature that could become inadvertently charged with electricity are grounded or bonded throughout the life of the line. [Amendment 3AMD3, Removed by Amendment AMD4]
- 1918OAR 345-025-0010(5): The certificate holder is authorized to construct a 230--kV transmission20line anywhere within the approved corridor, subject to the conditions of the site certificate. The21approved corridor is ½-mile in width and extends approximately 14-10.8 miles from the Phase22Montague Wind 2 collector substation to the Phase 1 collector substation to BPA's Slatt23Substation as presented in Figure 1 of the site certificate.24[OAR 345-025-0010(5); ASC; AMD4AMD5]
- 25 <u>19</u> OAR 345-025-0016: The following general monitoring conditions apply:
- (1) In the site certificate, the Council shall include conditions that address monitoring and
 mitigation to ensure compliance with the standards contained in OAR Chapter 345, Division 22
 and Division 24. The site certificate applicant, or for an amendment, the certificate holder, shall
 develop proposed monitoring and mitigation plans in consultation with the Department and, as
 appropriate, other state agencies, local governments and tribes. Monitoring and mitigation
 plans are subject to Council approval. The Council shall incorporate approved monitoring and
 mitigation plans in applicable site certificate conditions. -[AMD4[AMD5]
- 33 20 OAR 345-026-0048: Following receipt of the site certificate or an amended site certificate, the 34 certificate holder shall implement a plan that verifies compliance with all site certificate terms 35 and conditions and applicable statutes and rules. As a part of the compliance plan, to verify 36 compliance with the requirement to begin construction by the date specified in the site 37 certificate, the certificate holder shall report promptly to the Department of Energy when 38 construction begins. Construction is defined in OAR 345-001-0010. In reporting the beginning of 39 construction, the certificate holder shall describe all work on the site performed before 40 beginning construction, including work performed before the Council issued the site certificate, 41 and shall state the cost of that work. For the purpose of this exhibit, "work on the site" means 42 any work within a site or corridor, other than surveying, exploration or other activities to define

1 2		or characterize the site or corridor. The certificate holder shall document the compliance plan and maintain it for inspection by the Department or the Council.
3	<u>21</u>	OAR 345-026-0080: The certificate holder shall report according to the following requirements:
4		(a) General reporting obligation for energy facilities under construction or operating:
5 6 7 8 9 10 11 12 13		(i) Within six months after beginning construction, and every six months thereafter during construction of the energy facility and related or supporting facilities, the certificate holder shall submit a semiannual construction progress report to the Department of Energy. In each construction progress report, the certificate holder shall describe any significant changes to major milestones for construction. The certificate holder shall report on the progress of construction and shall address the subjects listed in subsections (2)(a), (d), (f) and (g). When the reporting date coincides, the certificate holder may include the construction progress report within the annual report described in this rule.
14 15 16 17 18 19 20 21		(ii) After January 1 but no later than April 30 of each year after beginning operation of the facility, the certificate holder shall submit an annual report to the Department addressing the subjects listed in Subsection (2). For the purposes of this rule, the beginning of operation of the facility means the date when construction of a significant portion of the facility is substantially complete and the certificate holder begins commercial operation of the facility as reported by the certificate holder and accepted by the Department. The Council Secretary and the certificate holder may, by mutual agreement, change the reporting date.
22 23 24 25		(iii) To the extent that information required by this rule is contained in reports the certificate holder submits to other state, federal or local agencies, the certificate holder may submit excerpts from such other reports to satisfy this rule. The Council reserves the right to request full copies of such excerpted reports
26 27		(b) In the annual report, the certificate holder shall include the following information for the calendar year preceding the date of the report:
28 29 30 31 32		(i) Facility Status: An overview of site conditions, the status of facilities under construction and a summary of the operating experience of facilities that are in operation. The certificate holder shall describe any unusual events, such as earthquakes, extraordinary windstorms, major accidents or the like that occurred during the year and that had a significant adverse impact on the facility.
33 34 35 36 37		(ii) Reliability and Efficiency of Power Production: For electric power plants, the plant availability and capacity factors for the reporting year. The certificate holder shall describe any equipment failures or plant breakdowns that had a significant impact on those factors and shall describe any actions taken to prevent the recurrence of such problems.
38 39 40		(iii) Status of Surety Information: Documentation demonstrating that bonds or letters of credit as described in the site certificate are in full force and effect and will remain in full force and effect for the term of the next reporting period.

1 2 3 4 5		(ir	v) Monitoring Report: A list and description of all significant monitoring and mitigation activities performed during the previous year in accordance with site certificate terms and conditions, a summary of the results of those activities and a discussion of any significant changes to any monitoring or mitigation program, including the reason for any such changes.
6 7 8 9		(v	Compliance Report: A description of all instances of noncompliance with a site certificate condition. For ease of review, the certificate holder shall, in this section of the report, use numbered subparagraphs corresponding to the applicable sections of the site certificate.
10 11 12		(v	 Facility Modification Report: A summary of changes to the facility that the certificate holder has determined do not require a site certificate amendment in accordance with OAR 345-027-0050.
13		(√	'ii)
14 15 16 17 18 19 20	<u>22</u>	OAR 34 of all co rules an withhel holder r shall pro request	<u>5-026-0105</u> : The certificate holder and the Department of Energy shall exchange copies prespondence or summaries of correspondence related to compliance with statutes, ad local ordinances on which the Council determined compliance, except for material d from public disclosure under state or federal law or under Council rules. The certificate may submit abstracts of reports in place of full reports; however, the certificate holder povide full copies of abstracted reports and any summarized correspondence at the of the Department.
21 22	<u>23</u>	<u>OAR 34</u> of any c	<u>5-026-0170</u> : The certificate holder shall notify the Department of Energy within 72 hours occurrence involving the facility if:
23		(a)	There is an attempt by anyone to interfere with its safe operation;
24 25 26		(b)	A natural event such as an earthquake, flood, tsunami or tornado, or a human-caused event such as a fire or explosion affects or threatens to affect the public health and safety or the environment; or
27		(c)	There is any fatal injury at the facility.

V. SPECIFIC FACILITY CONDITIONS

- 28 The conditions listed in this section include conditions based on representations in the site certificate
- 29 application and supporting record. The Council deems these representations to be binding
- 30 commitments made by the applicant. These conditions are required under OAR 345-025-0006.
- 31 The certificate holder must comply with these conditions in addition to the conditions listed in
- 32 Section IV. This section includes other specific facility conditions the Council finds necessary to ensure
- 33 compliance with the siting standards of OAR Chapter 345, Divisions 22 and 24, and to protect public
- 34 health and safety. For conditions that require subsequent review and approval of a future action, ORS
- 35 469.402 authorizes the Council to delegate the future review and approval to the Department if, in the
- 36 Council's discretion, the delegation is warranted under the circumstances of the case.

1 **1.** Certificate Administration Conditions

2 <u>24</u> The certificate holder shall:

Begin begin construction of Phase 1 of the facility by September 14, 2017. Under OAR 345-015-0085(9),
 a site certificate is effective upon execution by the Council Chair and the applicant. The Council
 may grant an extension of the deadline to begin construction in accordance with OAR 345-027 0385 or any successor rule in effect at the time the request for extension is submitted. [ASC;
 AMD2; AMD4AMD5]

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i. Begin construction of Phase 2 of the facility by August 30, 2022. The Council may grant an extension of the deadline to begin construction in accordance with OAR 345-027-0385 or any successor rule in effect at the time the request for extension is submitted. [AMD4]

12 <u>25</u> The certificate holder shall:

13 Complete complete construction of Phase 1 of the facility by September 14, 2020. i. – 14 Construction is complete when: (1) the facility is substantially complete as defined by the 15 certificate holder's construction contract documents, (2) acceptance testing has been 16 satisfactorily completed and (3) the energy facility is ready to begin continuous operation 17 consistent with the site certificate. The certificate holder shall promptly notify the 18 Department of the date of completion of construction. The Council may grant an extension 19 of the deadline for completing construction in accordance with OAR 345-027-0385 or any 20 successor rule in effect at the time the request for extension is submitted. [ASC; AMD2; 21 AMD4]

22 Complete construction of Phase 2 of the facility by [3 years of from the date of construction

commencement]. Construction is complete when: (1) the facility is substantially complete as
 defined by the certificate holder's construction contract documents, (2) acceptance testing has
 been satisfactorily completed and (3) the energy facility is ready to begin continuous operation
 consistent with the site certificate. The certificate holder shall promptly notify the Department
 of the date of completion of construction. The Council may grant an extension of the deadline
 for completing construction in accordance with OAR 345-027-0385 or any successor rule in
 effect at the time the request for extension is submitted. [AMD4[ASC; AMD2; AMD5]

30 <u>26</u> Before beginning construction of the facility, the certificate holder shall notify the Department
 31 whether the turbines identified as H1, H2, H3, H4, L8, L9, L10, L11 and L12 on Figure C-3a of the
 32 site certificate application will be built as part of the Montague Wind Power Facility or whether
 33 the turbines will be built as part of the Leaning Juniper II Wind Power Facility.

- The certificate holder shall construct a facility substantially as described in the site certificate
 and may select turbines of any type, subject to the following restrictions and compliance with all
 other site certificate conditions. Before beginning construction, the certificate holder shall
 provide to the Department a description of the turbine types selected for the facility
 demonstrating compliance with this condition.
- 39 i. For Phase 1 facility components:
 - (a) The total number of turbines must not exceed <u>5681</u> turbines.

1		(b) The turbine hub height must not exceed 100 meters and the maximum blade tip height
2 3		must not exceed 150 meters. (c) The minimum blade tip clearance must be 14 meters above ground. [Amendment #3]
4		
5	ii.	For Phase 2 facility components:
6		(a) Components may include any combination of wind and solar energy generation
/		equipment, up to 81 wind turbines or the maximum layout (including number and size)
8 0		OF SOLAF array components substantially as described in RFA4.
10		aboveground blade tip clearance must be 46 feet (14 meters).
11		
11		_Final Order on ASC; AMD3; AMD4AMD5_
12 13 14	<u>28</u>	The certificate holder shall obtain all necessary federal, state and local permits or approvals required for construction, operation and retirement of the facility or ensure that its contractors obtain the necessary federal, state and local permits or approvals.
16	29	The certificate holder shall:
17 18 19 20 21 22 23 24 25 26 27	<u>25</u>	 (a) Before beginning construction of each phase of the facility, provide to the Department a list of all third-party permits which would normally be governed by the site certificate and that are necessary for construction (e.g. Air Contaminant Discharge Permit; Limited Water Use License). Once obtained, the certificate holder shall provide copies of third-party permits to the Department and Gilliam County-and shall provide to the Department proof of agreements between the certificate holder and the third-party regarding access to the resources or services secured by the permits or approvals. (b) During construction and operation, promptly report to the Department if any third-party permits referenced in sub(i) of this condition have been subject to a cited violation, Notice of Violation, or allegation of a violation. [AMD4AMD5]
28 29 30 31 32	<u>30</u>	Before beginning construction, the certificate holder shall notify the Department in advance of any work on the site that does not meet the definition of "construction" in ORS 469.300, excluding surveying, exploration or other activities to define or characterize the site, and shall provide to the Department a description of the work and evidence that its value is less than \$250,000.
33 34 35 36 37 38 39 40 41 42 43	<u>31</u>	Before beginning construction but no more than two years before beginning construction and after considering all micrositing factors, the certificate holder shall provide to the Department, to the Oregon Department of Fish and Wildlife (ODFW) and to the Planning Director of Gilliam County detailed maps of the facility site, showing the final locations where the certificate holder proposes to build facility components, and a table showing the acres of temporary and permanent habitat impact by habitat category and subtype, similar to Table 6 in the Final Order on the Application. The detailed maps of the facility site shall indicate the habitat categories of all areas that would be affected during construction (similar to Figures P-8a through P-8d in the site certificate application). In classifying the affected habitat into habitat categories, the certificate holder shall consult with the ODFW. The certificate holder shall not begin ground disturbance in an affected area until the habitat assessment has been approved by the

- 1Department. The Department may employ a qualified contractor to confirm the habitat2assessment by on-site inspection.
- 3 i-Before beginning construction of Phase 1 of the facility, the certificate holder shall submit to 32 4 the State of Oregon through the Council a bond or letter of credit in the amount described 5 herein naming the State of Oregon, acting by and through the Council, as beneficiary or payee. 6 The initial bond or letter of credit, as adjusted in August 2018 in accordance with (a) and (b) 7 below, is \$7.705 million (3rd Quarter 2018 dollars) is either \$21.511 million (3rd Quarter 2010 8 dollars), to be adjusted to the date of issuance as described in (b), or the amount determined as 9 described in (a). The certificate holder shall adjust the amount of the bond or letter of credit on 10 an annual basis thereafter as described in (b).
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- (a) The certificate holder may adjust the amount of the bond or letter of credit based on the final design configuration of the facility and turbine types selected by applying the unit costs and general costs illustrated in Table 2 in the *Final Order on the Application* and calculating the financial assurance amount as described in that order, adjusted to the date of issuance as described in (b) and subject to approval by the Department.
 - (i) Adjust the Subtotal component of the bond or letter of credit amount (expressed in 3rd Quarter 2017 dollars) to present value, using the U.S. Gross Domestic Product Implicit Price Deflator, Chain-Weight, as published in the Oregon Department of Administrative Services' "Oregon Economic and Revenue Forecast" or by any successor agency (the "Index") and using the 3rd Quarter-2017 index values (to represent mid-2004 dollars) and the quarterly index value for the date of issuance of the new bond or letter of credit. If at any time the Index is no longer published, the Council shall select a comparable calculation to adjust mid-2004 dollars to present value.
 - (ii) Add 1 percent of the adjusted Subtotal (i) for the adjusted performance bond amount to determine the adjusted Gross Cost.
 - (iii) Add 10 percent of the adjusted Gross Cost (ii) for the adjusted administration and project management costs and 10 percent of the adjusted Gross Cost (ii) for the adjusted future developments contingency.
 - (iv) Add the adjusted Gross Cost (ii) to the sum of the percentages (iii) and round the resulting total to the nearest \$1,000 to determine the adjusted financial assurance amount.
- (b) The certificate holder shall adjust the amount of the bond or letter of credit, using the following calculation and subject to approval by the Department:
 - (c) The certificate holder shall use a form of bond or letter of credit approved by the Council.
- 38 (d) The certificate holder shall use an issuer of the bond or letter of credit approved by
 39 the Council.
- 40(e) The certificate holder shall describe the status of the bond or letter of credit in the
annual report submitted to the Council under Condition 21.

1 (f) The bond or letter of credit shall not be subject to revocation or reduction before 2 retirement of the facility site. 3 ii. Before beginning construction of Phase 2 of the facility, the certificate holder shall submit to 4 the State of Oregon through the Council a bond or letter of credit in the amount described 5 herein naming the State of Oregon, acting by and through the Council, as beneficiary or payee. 6 The bond or letter of credit will be issued for Phase 2 in an amount that is either \$10.429 7 million (1st Quarter 2019 dollars), to be adjusted to the date of issuance as described in (b), or 8 the amount determined as described in (a). The certificate holder shall adjust the amount of 9 the bond or letter of credit on an annual basis thereafter as described in (b). 10 (a) The certificate holder may adjust the amount of the bond or letter of credit based 11 on the final design configuration of the facility, and both the battery storage or 12 turbine types selected by applying the unit costs and general costs illustrated in 13 Table 5 of the Final Order on Amendment 4 and calculating the financial assurance 14 amount as described in that order, adjusted to the date of issuance as described in 15 (b) and subject to approval by the Department. The certificate holder may adjust the 16 amount of the bond or letter of credit under (a) if opting to construct only a portion 17 of the facility. 18 (b) The certificate holder shall adjust the amount of the bond or letter of credit, using 19 the following calculation and subject to approval by the Department: 20 (i) Adjust the Subtotal component of the bond or letter of credit amount 21 (expressed in mid-2004 dollars) to present value, using the U.S. Gross 22 Domestic Product Implicit Price Deflator, Chain-Weight, as published in the 23 Oregon Department of Administrative Services' "Oregon Economic and 24 Revenue Forecast" or by any successor agency (the "Index") and using the 25 average of the 2nd Quarter and 3rd Quarter 2004 index values (to represent 26 mid-2004 dollars) and the guarterly index value for the date of issuance of 27 the new bond or letter of credit. If at any time the Index is no longer 28 published, the Council shall select a comparable calculation to adjust mid-29 2004 dollars to present value. 30 (c) The certificate holder shall adjust the amount of the bond or letter of credit, using 31 the following calculation and subject to approval by the Department: 32 —Adjust the Subtotal component of the bond or letter of credit amount 33 (expressed in mid-2004 dollars) to present value, using the U.S. Gross 34 Domestic Product Implicit Price Deflator, Chain-Weight, as published in the 35 Oregon Department of Administrative Services' "Oregon Economic and 36 Revenue Forecast" or by any successor agency (the "Index") and using the 37 average of the 2nd Quarter and 3rd Quarter 2004index values (to represent 38 mid-2004 dollars) and the quarterly index value for the date of issuance of 39 the new bond or letter of credit. If at any time the Index is no longer 40 published, the Council shall select a comparable calculation to adjust mid-41 2004 dollars to present value. 42 (ii) Add 1 percent of the adjusted Subtotal (i) for the adjusted performance 43 bond amount to determine the adjusted Gross Cost. 44 (iii) --- Add 10 percent of the adjusted Gross Cost (ii) for the adjusted 45 administration and project management costs, add 20 percent of the adjusted Gross Cost of the Solar Generation and Battery Storage System (ii) 46

1		and 10 percent of the adjusted Gross Cost of all other facility components(ii)
2		for the adjusted future developments contingency.
3		(iv) Add the adjusted Gross Cost (ii) to the sum of the percentages (iii) and
4		round the resulting total to the nearest \$1,000 to determine the adjusted
5		financial assurance amount.
6		(d) The certificate holder shall use a form of bond or letter of credit approved by the
7		Council.
8		(e) The certificate holder shall use an issuer of the bond or letter of credit approved by
9		the Council.
10		(f)—The certificate holder shall describe the status of the bond or letter of credit in the
11		annual report submitted to the Council under Condition 21.
12		(g) The bond or letter of credit shall not be subject to revocation or reduction before
13		retirement of the facility site.
14		[AMD4 [AMD5]
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16	<u>33</u>	If the certificate holder elects to use a bond to meet the requirements of Condition 32, the
17		certificate holder shall ensure that the surety is obligated to comply with the requirements of
18		applicable statutes, Council rules and this site certificate when the surety exercises any legal or
19		contractual right it may have to assume construction, operation or retirement of the energy
20		facility. The certificate holder shall also ensure that the surety is obligated to notify the Council
21		that it is exercising such rights and to obtain any Council approvals required by applicable
22		statutes, Council rules and this site certificate before the surety commences any activity to
23		complete construction, operate or retire the energy facility.
24	34	Before beginning construction, the certificate holder shall notify the Department of the identity
25		and gualifications of the major design, engineering and construction contractor(s) for the
26		facility. The certificate holder shall select contractors that have substantial experience in the
27		design, engineering and construction of similar facilities. The certificate holder shall report to
28		the Department any change of major contractors.
29	25	The certificate holder shall contractually require all construction contractors and subcontractors
30	<u>55</u>	involved in the construction of the facility to comply with all applicable laws and regulations and
31		with the terms and conditions of the site certificate. Such contractual provisions shall not
32		onerate to relieve the certificate holder of responsibility under the site certificate
52		operate to relieve the certificate holder of responsibility and er the site certificate.
33	<u>36</u>	To ensure compliance with all site certificate conditions during construction, the certificate
34		holder shall have a full-time, on-site assistant construction manager who is qualified in
35		environmental compliance. The certificate holder shall notify the Department of the name,
36		telephone number and e-mail address of this person.
37	37	Within 72 hours after discovery of conditions or circumstances that may violate the terms or
38	<u></u>	conditions of the site certificate, the certificate holder shall report the conditions or
39		circumstances to the Department.
57		
40	2. Lar	nd Use Conditions

41 <u>38</u> The certificate holder shall:
1 2 3	Consul	tshall consult with area landowners and lessees during construction and operation of Phase 1 of the facility and implement measures to reduce and avoid any adverse impacts to farm practices on surrounding lands and to avoid any increase in farming costs.
4 5 6 7 8 9		i. Consult with area landowners and lessees during construction and operation of Phase 2 of the facility and implement measures to reduce and avoid any adverse impacts to ongoing farm practices on surrounding lands, including coordination with the landowner of the solar micrositing area to ensure that the final solar array layout does not prevent the landowner from maximizing agricultural production on the land not occupied by the solar array. _[Final Order on ASC; AMD4AMD5]
10 11 12 13 14 15 16	<u>39</u> Phase :	The certificate holder shall design and construct: Lof the facility using the minimum land area necessary for safe construction and operation. The certificate holder shall locate access roads and temporary construction laydown and staging areas to minimize disturbance of farming practices and, wherever feasible, shall place turbines and transmission interconnection lines along the margins of cultivated areas to reduce the potential for conflict with farm operations. [Final Order on ASC; AMD4; <u>AMD5</u>]
17 18 19 20 21		 Phase 2 of the facility to minimize the permanent impacts to agricultural land, including to the extent practicable, using existing access roads, co-locating facilities, reducing road and transmission line/collector line lengths, and designing facility components to allow ongoing access to agricultural fields. [Final Order on ASC; AMD4]
22 23 24	<u>40</u>	The certificate holder shall install gates on private access roads in accordance with Gilliam County Zoning Ordinance Section 7.020(T)(4)(d)(6) unless the County has granted a variance to this requirement.
25 26 27	<u>41</u>	Before beginning construction of the facility, the certificate holder shall record in the real property records of Gilliam County a Covenant Not to Sue with regard to generally accepted farming practices on adjacent farmland consistent with GCZO Section 37 7.020(T)(4)(a)(5).
28 29	<u>42</u>	The certificate holder shall construct all facility components in compliance with the following setback requirements:
30 31 32 33 34 35 36		 (a) All facility components must be at least 3,520 feet from the property line of properties zoned residential use or designated in the Gilliam County Comprehensive Plan as residential. (b) Where (a) does not apply, the certificate holder shall maintain a minimum distance of 110-percent of maximum blade tip height, measured from the centerline of the turbine tower to the nearest edge of any public road right-of-way. The certificate holder shall assume a minimum right-of-way width of 60 feet. (c) Where (a) does not apply, the certificate holder shall maintain a minimum distance of 1.320
37 38 39 40 41		 feet, measured from the centerline of the turbine tower to the center of the nearest residence existing at the time of tower construction. (d) Where (a) does not apply, the certificate holder shall maintain a minimum distance of 110-percent of maximum blade tip height, measured from the centerline of the turbine tower to the nearest boundary of the certificate holder's lease area.

1 2 2		(e) The certificate holder shall maintain a minimum distance of 250 feet measured from the center line of each turbine tower to the nearest edge of any railroad right-of-way or electrical substation.
Э 1		electrical substation. (f) The certificate holder shall maintain a minimum distance of 250 feet measured from the
4		(1) The certificate holder shall maintain a minimum distance of 250 feet measured from the
5		center line of each meteorological tower to the hearest edge of any public road right-of-way
07		or railroad right-of-way, the nearest boundary of the certificate holder's lease area of the
0		rearest electrical substation.
0		(g) The certificate holder shall maintain a minimum distance of 50 feet measured from any
9 10		way or the nearest houndary of the certificate holder's lease area
11		(b) The certificate holder shall maintain a minimum distance of 50 feet measured from any
12		substation to the pearest edge of any public road right-of-way or railroad right-of-way or the
12		nearest houndary of the certificate holder's electrical substation easement or if there is no
14		escement the nearest boundary of the certificate holder's lease area
15		(i) Where (a) does not apply the certificate holder shall maintain a minimum of 110 percent of
16		maximum blade tin beight measured from the centerline of the turbine tower from any
17		overhead utility line [Amendment #1]
18		(i) Where (a) does not apply the certificate holder shall maintain a minimum of 150 percent of
19		maximum turbine height from blade tip height, measured from the centerline of the turbine
20		tower from federal transmission lines, unless the affected parties agree otherwise.
21		[Amendment #1]
22		(k)—The certificate holder shall maintain a minimum distance of 25 feet measured from the
23		fence line of the solar array to the nearest property line.
24		(I) The certificate holder shall maintain a minimum distance of 25 feet measured from the
25		front. rear and side vard of the battery storage system site to the nearest property line.
26		(m)(k) For Phase 2 facility components, all wind turbines must be setback a minimum distance
27		of 656 feet (200 meters), measured from the centerline of the turbine tower to the nearest
28		edge of the breaks of Rock Creek Canyon. [AMD4]
29		
30	43	During construction and operation of the facility, the certificate holder shall implement a weed
31		control plan approved by the Gilliam County Weed Control Officer or other appropriate County
32		officials to control the introduction and spread of noxious weeds.
33	<u>44</u>	During operation of the facility, the certificate holder shall restore areas that are temporarily
34		disturbed during facility maintenance or repair activities using the same methods and
35		monitoring procedures described in the Revegetation Plan referenced in Condition 92.
26	45	Within 00 days after beginning exerction of the facility or a phase of the facility, the cortificate
27	<u>45</u>	within 90 days after beginning operation of the facility or a phase of the facility, the certificate
28		actual latitude and lengitude location or Statenlane NAD 82(01) coordinates of each turbine
20		towar connecting lines and transmission lines and a summary of as built changes in the facility
39 40		compared to the original plan
40		
41	<u>46</u>	The certificate holder shall deliver a copy of the annual report required under Condition 21 to
42		the Gilliam County Planning Commission on an annual basis unless specifically discontinued by
43		the County.

1 3. Cultural Resource Conditions

2	<u>47</u>	Before	beginning construction, the certificate holder shall:
3	(a) Lab	elshall I	abel all identified historic, cultural or archeological resource sites on construction maps
4	and dra	awings a	s "no entry" areas. If construction activities will occur within 200 feet of an identified site,
5	the cer	tificate l	holder shall flag a 30-meter no entry buffer around the site. The certificate holder may
6	use exi	sting pri	vate roads within the buffer areas but may not widen or improve private roads within the
7	buffer a	areas. Tł	ne no-entry restriction does not apply to public road rights-of-way within the buffer areas
8	or to o	peration	al farmsteads. [Final Order on ASC]
9		(b) Sub	mit for review and approval by the Department in consultation with the State Historic
10		Pres	servation Office, a final Phase 2 Historical Resource Mitigation Plan (HRMP), based on the
11		draf	t HRMP provided in Attachment H of the Final Order on Request for Amendment 4. The
12		fina	HRMP shall include the following:
13			i. Confirmation on established setback of Phase 2 facility components to the
14			Weatherford Barn, if confirmed by the Department and SHPO to represent a
15			distance whereby indirect impacts to setting and feeling would be minimized to less
16			than significant. In the alternative, the certificate holder shall specify the mitigation
17			option selected from the HRMP and the implementation schedule to reduce
18			significant adverse indirect impacts to the Weatherford Barn.
19		ŧ	i. Concurrence from SHPO that the Olex Townsite, Olex School, and the Olex
20			Cemetery ("Olex resources") are not likely eligible for listing as individual properties
21			or together as a historic district on the National Register of Historic Places (NRHP);
22			or if SHPO concurs that the Olex resources either individually or as a historic district
23 24			are likely eligible for listing, the certificate holder shall include in its final HRWP
24 25			appropriate descriptions of the resources and mitigation, which could include an
25 26			confirmed by the Department in consultation with SHPO to represent a distance
20			whereby indirect impacts to setting and feeling would be minimized to less than
$\frac{2}{28}$			significant. In the alternative, the certificate holder shall specify the mitigation
29			option selected and the implementation schedule to reduce significant adverse
30			indirect impacts to the Olex resources such as: historic photo documentation and
31			scale drawings of Olex; additional archival and literature review; video media
32			publications; public interpretation funding; or other form of compensatory
33			mitigation deemed appropriate by the Department, in consultation with SHPO.
34			[AMD4 <mark>; AMD5</mark>]
35			
36	<u>48</u>	In refe	rence to the alignment of the Oregon Trail described in the Final Order on the
37		Applica	ition, the certificate holder shall comply with the following requirements:
20		<i>(</i> 1)	
38		(a)	The certificate holder shall not locate facility components on visible remnants of the
39			Oregon Trail and shall avoid any construction disturbance to those remnants.
40		(p)	The certificate holder shall not locate facility components on undeveloped land where
40 41		(e)	the trail alignment is marked by existing Oregon-California Trail Association markers
тı			are train angument is marked by existing or egon-camornia frain Association markets.
42		(f)	Before beginning construction, the certificate holder shall provide to the State Historic
43		. ,	Preservation Office (SHPO) and the Department documentation of the presumed
44			Oregon Trail alignments within the site boundary.

- 1 (g) The certificate holder shall ensure that construction personnel proceed carefully in the 2 vicinity of the presumed alignments of the Oregon Trail. If any physical evidence of the 3 trail is discovered, the certificate holder shall avoid any disturbance to the intact 4 segments by redesign, re-engineering or restricting the area of construction activity and 5 shall flag a 30-meter no-entry buffer around the intact Trail segments. -The certificate 6 holder shall promptly notify the SHPO and the Department of the discovery. The 7 certificate holder shall consult with the SHPO and the Department to determine 8 appropriate mitigation measures. 9 49 Before beginning construction, the certificate holder shall provide to the Department a map 10 showing the final design locations of all components of the facility, the areas that would be 11 temporarily disturbed during construction and the areas that were surveyed in 2009 as 12 described in the Final Order on the Application. The certificate holder shall hire qualified 13 personnel to conduct field investigations of all areas to be disturbed during construction that lie 14 outside the previously-surveyed areas. The certificate holder shall provide a written report of 15 the field investigations to the Department and to the Oregon State Historic Preservation Office 16 (SHPO) for review and approval. If any potentially significant historic, cultural or archaeological 17 resources are found during the field investigation, the certificate holder shall instruct all 18 construction personnel to avoid the identified sites and shall implement appropriate measures 19 to protect the sites, including the measures described in Condition 47. 20 50 During construction, the certificate holder shall: 21
 - (a) Ensure that a qualified archeologist, as defined in OAR 736-051-0070, instructs construction personnel in the identification of cultural materials and avoidance of accidental damage to identified resource site.
 - (b) Employ a qualified cultural resource monitor to conduct monitoring of ground disturbance at depths of 12 inches or greater. The qualifications of the selected cultural resources monitor shall be reviewed and approved by the Department, in consultation with the CTUIR Cultural Resources Protection Program. In the selection of the cultural resources monitor to be employed during construction, preference shall be given to citizens of the CTUIR. Ground disturbance at depths 12 inches or greater shall not occur without the presence of the approved cultural resources monitor. If any cultural resources are identified during monitoring activities, the steps outlined in the Inadvertent Discovery Plan, as provided in Attachment H of the Final Order on Amendment 45 should be followed. The certificate holder shall report to the Department in its semi-annual report a description of the ground disturbing activities that occurred during the reporting period, dates cultural monitoring occurred, and shall include copies of monitoring forms completed by the cultural resource monitor. [AMD4AMD5]
- 37 <u>51</u> The certificate holder shall ensure that construction personnel cease all ground-disturbing 38 activities in the immediate area if any archaeological or cultural resources are found during 39 construction of the facility until a qualified archaeologist can evaluate the significance of the 40 find. The certificate holder shall notify the Department and the Oregon State Historic 41 Preservation Office (SHPO) of the find. If the SHPO determines that the resource is significant, 42 the certificate holder shall make recommendations to the Council for mitigation, including 43 avoidance, field documentation and data recovery, in consultation with the Department, SHPO, 44 interested Tribes and other appropriate parties. -The certificate holder shall not restart work in

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the affected area until the certificate holder has demonstrated to the Department and the SHPO
 that it has complied with archaeological resource protection regulations

3 4. Geotechnical Conditions

- Before beginning construction of each phase of the facility, the certificate holder shall conduct a
 site-specific geotechnical investigation and shall report its findings to the Oregon Department of
 Geology & Mineral Industries (DOGAMI) and the Department. The certificate holder shall conduct
 the geotechnical investigation after consultation with DOGAMI to confirm appropriate site-specific
 methodologies for evaluating seismic and non-seismic hazards to inform equipment foundation
 and road design. [Final Order; AMD4AMD5]
- 1053The certificate holder shall design and construct the facility in accordance with requirements of11the current Oregon Structural Specialty Code and International Building Code. [AMD4AMD5]
- 1254The certificate holder shall design, engineer and construct the facility to avoid dangers to human13safety presented by non-seismic hazards. As used in this condition, "non-seismic hazards"14include settlement, landslides, flooding and erosion.

15 5. Hazardous Materials, Fire Protection & Public Safety Conditions

- 1655The certificate holder shall handle hazardous materials used on the site in a manner that17protects public health, safety and the environment and shall comply with all applicable local,18state and federal environmental laws and regulations. The certificate holder shall not store19diesel fuel or gasoline on the facility site during operations. [AMD4AMD5]
- 2056If a spill or release of hazardous material occurs during construction or operation of the facility,21the certificate holder shall notify the Department within 72 hours and shall clean up the spill or22release and dispose of any contaminated soil or other materials according to applicable23regulations. The certificate holder shall make sure that spill kits containing items such as24absorbent pads are located on equipment and at the O&M buildingsbuilding (shared with25Leaning Juniper IIA). The certificate holder shall instruct employees about proper handling,26storage and cleanup of hazardous materials
- The certificate holder shall construct turbines and pad-mounted transformers on concrete
 foundations and shall cover the ground within a 10-foot radius with non-flammable material.
 The certificate holder shall maintain the non-flammable pad area covering during operation of
 the facility.
- 3158The certificate holder shall install and maintain self-monitoring devices on each turbine, linked32to sensors at the operations and maintenance building, to alert operators to potentially33dangerous conditions, and the certificate holder shall immediately remedy any dangerous34conditions. The certificate holder shall maintain automatic equipment protection features in35each turbine that would shut down the turbine and reduce the chance of a mechanical problem36causing a fire.
- 3759During construction and operation of the facility, the certificate holder shall ensure that the38O&M buildingsbuilding and all service vehicles are equipped with shovels and portable fire39extinguishers of a 4A5OBC or equivalent rating.

- 1 60 During construction and operation of the facility, the certificate holder shall develop and 2 implement fire safety plans in consultation with the North Gilliam County Rural Fire Protection 3 District to minimize the risk of fire and to respond appropriately to any fires that occur on the 4 facility site. In developing the fire safety plans, the certificate holder shall take into account the 5 dry nature of the region and shall address risks on a seasonal basis. The certificate holder shall 6 meet annually with local fire protection agency personnel to discuss emergency planning and 7 shall invite local fire protection agency personnel to observe any emergency drill or tower 8 rescue training conducted at the facility.
- 9 61 Upon the beginning of operation of the facility, the certificate holder shall provide a site plan to 10 the North Gilliam County Rural Fire Protection District. The certificate holder shall indicate on 11 the site plan the identification number assigned to each turbine and the actual location of all 12 facility structures. The certificate holder shall provide an updated site plan if additional turbines 13 or other structures are later added to the facility. During operation, the certificate holder shall 14 ensure that appropriate fire protection agency personnel have an up-to-date list of the names 15 and telephone numbers of facility personnel available to respond on a 24-hour basis in case of 16 an emergency on the facility site.
- 1762During construction, the certificate holder shall ensure that construction personnel are trained18in fire prevention and response, that construction vehicles and equipment are operated on19graveled areas to the extent possible and that open flames, such as cutting torches, are kept20away from dry grass areas.
- 2163During operation of the facility, the certificate holder shall ensure that all on-site employees22receive annual fire prevention and response training by qualified instructors or members of the23local fire districts. The certificate holder shall ensure that all employees are instructed to keep24vehicles on roads and off dry grassland, except when off-road operation is required for25emergency purposes.
- 26 <u>64</u> Before beginning construction of:
- Phase 1of the facility, the certificate holder shall submit a Notice of Proposed Construction or Alteration
 to the Federal Aviation Administration (FAA) and the Oregon Department of Aviation identifying
 the proposed final locations of turbine towers and meteorological towers. The certificate holder
 shall promptly notify the Department of the responses from the FAA and the Oregon
 Department of Aviation. [AMD5]
- 32 -Phase 2, the certificate holder shall submit a Notice of Proposed Construction or Alteration 33 to the Federal Aviation Administration (FAA) and the Oregon Department of Aviation 34 identifying the proposed final locations of turbine towers and meteorological towers to 35 determine if the structure(s) are a hazard to air navigation and aviation safety. The 36 certificate holder shall promptly notify the Department of the responses from the FAA and 37 the Oregon Department of Aviation. The FAA and ODA evaluation and determinations are 38 valid for 18 months (per OAR 738-070-0180), once issued. The certificate holder shall 39 maintain current hazard determinations on file commensurate with construction timelines. 40 [AMD4]

- 1<u>65</u>The certificate holder shall follow manufacturers' recommended handling instructions and2procedures to prevent damage to turbine or turbine tower components that could lead to3failure.
- 4<u>66</u>The certificate holder shall construct turbine towers with no exterior ladders or access to the5turbine blades and shall install locked tower access doors. The certificate holder shall keep6tower access doors locked at all times, except when authorized personnel are present.
- During operation of the facility, the certificate holder shall have a safety-monitoring program and shall inspect all turbine and turbine tower components on a regular basis. The certificate holder shall maintain or repair turbine and turbine tower components as necessary to protect public safety.
- 11<u>68</u>For turbine types having pad-mounted step-up transformers, the certificate holder shall install12the transformers at the base of each tower in locked cabinets designed to protect the public13from electrical hazards and to avoid creation of artificial habitat for raptor prey.
- 1469To protect the public from electrical hazards, the certificate holder shall enclose the facility15substations, solar array, and battery storage systems with appropriate fencing and locked16gates. [AMD4AMD5]
- 17 Before beginning construction of any new State Highway approaches or utility crossings, the 70 18 certificate holder shall obtain all required permits from the Oregon Department of 19 Transportation (ODOT) subject to the applicable conditions required by OAR Chapter 734, 20 Divisions 51 and 55. The certificate holder shall submit the necessary application in a form 21 satisfactory to ODOT and the Department for the location, construction and maintenance of a 22 new approach to State Highway 19 for access to the site south of Tree Lane. The certificate 23 holder shall submit the necessary application in a form satisfactory to ODOT and the 24 Department for the location, construction and maintenance of transmission lines crossing 25 Highway 19.
- 26 71 The certificate holder shall design and construct new access roads and private road 27 improvements to standards approved by the Gilliam County Road Department or, where 28 applicable, the Morrow County Public Works Department. Where modifications of County roads 29 are necessary, the certificate holder shall construct the modifications entirely within the County 30 road rights-of-way and in conformance with County road design standards subject to the 31 approval of the Gilliam County Road Department or, where applicable, the Morrow County 32 Public Works Department. Where modifications of State roads or highways are necessary, the 33 certificate holder shall construct the modifications entirely within the public road rights-of-way 34 and in conformance with Oregon Department of Transportation (ODOT) standards subject to the 35 approval of ODOT.
- 3672The certificate holder shall construct access roads with a finished width of up to 20 feet,37designed under the direction of a licensed engineer and compacted to meet equipment load38requirements.
- 3973During construction of the facility, the certificate holder shall implement measures to reduce40traffic impacts, including:

1		(h)	Providing notice to adjacent landowners when heavy construction traffic is anticipated.	
2		(i)	Providing appropriate traffic safety signage and warnings.	
3 4		(j)	Requiring flaggers to be at appropriate locations at appropriate times during construction to direct traffic.	
5 6		(k)	Using traffic diversion equipment (such as advance signage and pilot cars) when slow or oversize construction loads are anticipated.	
7 8		(I)	Maintaining at least one travel lane at all times to the extent reasonably possible so that roads will not be closed to traffic because of construction vehicles.	
9		(m)	Encouraging carpooling for the construction workforce.	
10 11		(n)	Including traffic control procedures in contract specifications for construction of the facility.	
12 13		(0)	Keeping Highway 19 free of gravel that tracks out onto the highway at facility access points.	
14 15 16 17	<u>74</u>	The cer County park ec County	tificate holder shall ensure that no equipment or machinery is parked or stored on any road whether inside or outside the site boundary. The certificate holder may temporarily quipment off the road but within County rights-of-way with the approval of the Gilliam Road Department or, where applicable, the Morrow County Public Works Department.	
18 19 20 21 22 23 24 25 26 27 28	<u>75</u>	The cer any university repaired Agreen Upon constru- required to repaired utilized with the implem	he certificate holder shall cooperate with the Gilliam County Road Department to ensure that ny unusual damage or wear to county roads that is caused by construction of the facility is epaired by the certificate holder. Submittal to the Department of an executed Road Use greement with Gilliam County shall constitute evidence of compliance with this condition. Ipon completion of construction, the certificate holder shall restore public roads to pre- onstruction condition or better to the satisfaction of the applicable county departments. If equired by Gilliam County, the certificate holder shall post bonds to ensure funds are available o repair and maintain roads affected by the facility. If construction of a phase of the facility will tilize county roads in counties other than Gilliam County, the certificate holder shall coordinate with the Department and the respective county road departments regarding the mplementation of a similar Road Use Agreement. [AMD4AMD5]	
29 30 31 32 33 34	<u>76</u>	During develop about f telepho certific trained	construction, the certificate holder shall require that all on-site construction contractors p and implement a site health and safety plan that informs workers and others on-site first aid techniques and what to do in case of an emergency and that includes important one numbers and the locations of on-site fire extinguishers and nearby hospitals. The ate holder shall ensure that construction contractors have personnel on-site who are and equipped for tower rescue and who are first aid and CPR certified.	
35 36 37 38	<u>77</u>	During and saf to do ir include	operation of the facility, the certificate holder shall develop and implement a site health fety plan that informs employees and others on-site about first aid techniques and what in case of an emergency, including a contingency plan in a fire emergency, and that is important telephone numbers and the locations of on-site fire extinguishers, nearby	

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hospitals, Gilliam County Sheriff's Office and the office locations of the backup law enforcement services. The certificate holder shall ensure that operations personnel are trained and equipped for tower rescue. If the certificate holder conducts an annual emergency drill or performs tower rescue training at the facility, the North Gilliam County Rural Fire Protection District and the Arlington Fire Department will be invited to observe. [AMD4AMD5]

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- (a) During construction of each phase of the facility, the certificate holder shall provide on-site security within the facility site boundary, and shall establish good communications between on-site security personnel and the Gilliam County Sheriff's Office by establishing a communication protocol between the security personnel and the Sherriff's office. The communication protocol shall be sent to the Department prior to construction.
- (b) During operation, the certificate holder shall ensure that appropriate law enforcement agency personnel have an up-to-date list of the names and telephone numbers of facility personnel available to respond on a 24-hour basis in case of an emergency on the facility site. The list shall also be sent to the Department.
- 16 <u>79</u> The certificate holder shall notify the Department of Energy and the Gilliam County Planning
 17 Department within 72 hours of any accidents including mechanical failures on the site
 18 associated with construction or operation of the facility that may result in public health and
 19 safety concerns

6. Water, Soils, Streams & Wetlands Conditions

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- i. The certificate holder shall conduct all construction work in compliance with an Erosion and
 Sediment Control Plan (ESCP) satisfactory to the Oregon Department of Environmental
 Quality and as required under the National Pollutant Discharge Elimination System (NPDES)
 Storm Water Discharge General Permit #1200-C. The certificate holder shall include in the
 ESCP any procedures necessary to meet local erosion and sediment control requirements or
 storm water management requirements.
- 28 ii.
- 29 Before beginning construction of Phase 2 wind energy generation components, the 30 certificate holder shall submit to the Department and Gilliam County Planning Director 31 for review and approval a topsoil management plan including how topsoil will be 32 stripped, stockpiled, and clearly marked in order to maximize topsoil preservation and 33 minimize erosion impacts. [OAR 660 033 0130(38)(f)(B)]. The topsoil management plan 34 may be incorporated into the final Erosion and Sediment Control Plan, required under 35 sub(c) or may be provided to the Department as a separate plan. 36 b.a. Prior to beginning facility operation, the certificate holder shall provide the Department
- 36b.a. Prior to beginning facility operation, the certificate holder shall provide the Department37a copy of an operational SPCC plan, if required pursuant to OAR 340-141-0001 to -0240.38[AMD4AMD5]39
- 4081During construction, the certificate holder shall limit truck traffic to improved road surfaces to
avoid soil compaction, to the extent practicable.
- 4282During construction, the certificate holder shall implement best management practices to
control any dust generated by construction activities, such as applying water to roads and
disturbed soil areas.

<u>83</u>	Before beginning construction of the facility-or a phase of the facility, the certificate holder shall provide to the Department a map showing the final design locations of all components-of the facility or phase of the facility, and the areas that would be disturbed during construction and showing the wetlands and stream chappels previously surveyed by CH2M HILL or HDR as
	described in the Final Order on the Application and the Final Order on Amendment #4. For areas
	to be disturbed during construction that lie outside of the previously-surveyed areas, the
	certificate holder shall hire qualified personnel to conduct a pre-construction investigation to
	determine whether any jurisdictional waters of the State exist in those locations within the
	proposed expanded site boundary. The certificate holder shall provide a written report on the
	pre-construction investigation to the Department and the Department of State Lands for
	approval before beginning construction of the phase. The certificate holder shall ensure that
	construction and operation of the facility will have no impact on any jurisdictional water
	identified in the pre-construction investigation.
	<u>83</u>

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- 84 The certificate holder shall avoid impacts to waters of the state in the following manner:
- 15
- The certificate holder shall avoid any disturbance to delineated wetlands. (a)
- 16 (b) The certificate holder shall construct stream crossings for roads and underground 17 collector lines substantially as described in the Final Order on the Application or the 18 Final Order on Amendment #4. In particular, the certificate holder shall not remove 19 material from waters of the State or add new fill material to waters of the State such 20 that the total volume of removal and fill exceeds 50 cubic yards for the project as a 21 whole.
- 22 (c) The certificate holder shall construct support poles for aboveground lines outside of 23 delineated stream channels and shall avoid in-channel impacts. 24 [AMD4AMD5]
- 25 85 During facility operation, the certificate holder shall routinely inspect and maintain all facility 26 components including roads, pads (including turbine and battery storage pad), solar array, and, 27 trenched areas and, as necessary, maintain or repair erosion and sediment control measures. 28 [AMD4AMD5]
- 29 86 During facility operation, the certificate holder shall obtain water for on-site uses from on-site 30 wells located near the O&M buildingsbuilding. The certificate holder shall construct on-site wells 31 subject to compliance with the provisions of ORS 537.765 relating to keeping a well log. The 32 certificate holder shall not use more than 5,000 gallons of water per day from the on-site 33 wellswell. The certificate holder may use other sources of water for on-site uses subject to prior 34 approval by the Department.
- 35 During facility operation, if wind turbine blade-or solar panel-washing becomes necessary, the 87 36 certificate holder shall ensure that there is no runoff of wash water from the site or discharges 37 to surface waters, storm sewers or dry wells. The certificate holder shall not use acids, bases or 38 metal brighteners with the wash water. The certificate holder may use biodegradable, 39 phosphate-free cleaners sparingly. [AMD4AMD5]

1 7. Transmission Line & EMF Conditions

2 88 The certificate holder shall install the 34.5-kV collector system underground to the extent 3 practical. The certificate holder shall install underground lines at a minimum depth of three feet. 4 Based on geotechnical conditions or other engineering considerations, the certificate holder 5 may install segments of the collector system aboveground, but the total length of aboveground 6 segments must not exceed 27 miles. 7 The certificate holder shall take reasonable steps to reduce or manage human exposure to 89 8 electromagnetic fields, including but not limited to: 9 (a) Constructing all above ground transmission lines at least 200 feet from any residence or 10 other occupied structure, measured from the centerline of the transmission line. 11 (b) Providing to landowners a map of underground and overhead transmission lines on 12 their property and advising landowners of possible health risks from electric and 13 magnetic fields. 14 (c) Designing and maintaining all transmission lines so that alternating current electric fields 15 do not exceed 9 kV per meter at one meter above the ground surface in areas accessible 16 to the public. 17 (d) Designing and maintaining all transmission lines so that induced voltages during 18 operation are as low as reasonably achievable. 19 90 In advance of, and during, preparation of detailed design drawings and specifications for 230-kV 20 and 34.5-kV transmission lines, the certificate holder shall consult with the Utility Safety and 21 Reliability Section of the Oregon Public Utility Commission to ensure that the designs and 22 specifications are consistent with applicable codes and standards. 23 8. Plants, Wildlife & Habitat Protection Conditions 24 Prior to construction of the Facility or a phase of the Facility, the certificate holder shall finalize 91 25 the Wildlife Monitoring and Mitigation Plans (WMMPs), based on the draft WMMP included as 26 Attachment F of the Final Order on Request for Amendment #4, as approved by the Department 27 in consultation with ODFW. The certificate holder shall conduct wildlife monitoring as described 28 in the final WMMP, as amended from time to time. [Amendment #3; AMD4AMD5] 29 92 The certificate holder shall restore areas disturbed by facility construction but not occupied by 30 permanent facility structures according to the methods and monitoring procedures described in 31 the final Revegetation Plans for each phase of the Facility, as approved by the Department in 32 consultation with ODFW. The final Revegetation Plan shall be based on the draft plan as 33 Attachment E in the Final Order on Request for Amendment #4, and as amended from time to 34 time. [Amendment #3; AMD4AMD5] 35 93 The certificate holder shall: 36 (a) Acquire the legal right to create, enhance, maintain and protect a habitat mitigation area as 37

long as the site certificate is in effect by means of an outright purchase, conservation

1 easement or similar conveyance and shall provide a copy of the documentation to the 2 Department. Within the habitat mitigation area, the certificate holder shall improve the 3 habitat quality as described in the final Habitat Mitigation Plans for each phase of the 4 Facility, as approved by the Department in consultation with ODFW. The final Habitat 5 Mitigation Plans shall be based on the draft plan included as Attachment G to the Final 6 Order on Request for Amendment #3 and updated based on Condition 31. The final Habitat 7 Mitigation Plans may be amended from time to time. [Amendment #3; AMD4AMD5] 8 (b) Prior to construction of Phase 2 components, the certificate holder shall finalize and 9 implement the Phase 2 Habitat Mitigation Plan (HMP) included as Attachment D of the Final 10 Order, as approved by ODOE in Consultation with ODFW. Provision 93(b)(A) regarding 11 impacted acreage calculations shall be completed and submitted to the department after 12 construction is complete as described in the condition below. 13 (c) Within 90 days of completion of construction, the certificate holder shall submit to the 14 department and ODFW an updated HMP Table. 15 [AMD4AMD5] 16 The certificate holder shall determine the boundaries of Category 1 Washington ground squirrel 94 17 (WGS) habitat based on the locations where the squirrels were found to be active in the most 18 recent WGS survey prior to the beginning of construction in habitat suitable for WGS foraging or 19 burrow establishment ("suitable habitat"). The certificate holder shall hire a qualified 20 professional biologist who has experience in detection of WGS to conduct surveys using a survey 21 protocol approved by the Oregon Department of Fish and Wildlife (ODFW). The biologist shall 22 survey all areas of suitable habitat where permanent facility components would be located or 23 where construction disturbance could occur. Except as provided in (a), the biologist shall 24 conduct the protocol surveys in the active squirrel season (March 1 to May 31) in 2010 and in 25 the active squirrel seasons in subsequent years until the beginning of construction in suitable 26 habitat. The certificate holder shall provide written reports of the surveys to the Department 27 and to ODFW and shall identify the boundaries of Category 1 WGS habitat. The certificate holder 28 shall not begin construction within suitable habitat until the identified boundaries of Category 1 29 WGS habitat have been approved by the Department. Category 1 WGS habitat includes the 30 areas described in (b) and (c). 31 (a) The certificate holder may omit the WGS survey in any year if the certificate holder 32 avoids all permanent and temporary disturbance within suitable habitat until a WGS 33 survey has been completed in the following year and the boundaries of Category 1 34 habitat have been determined and approved based on that survey. 35 (b) Category 1 WGS habitat includes the area within the perimeter of multiple active WGS 36 burrows plus a 785-foot buffer, excluding areas of habitat types not suitable for WGS 37 foraging or burrow establishment. If the multiple-burrow area was active in a prior 38 survey year, then Category 1 habitat includes the largest extent of the active burrow 39 area ever recorded (in the current or any prior-year survey), plus a 785-foot buffer. 40 (c) Category 1 WGS habitat includes the area containing single active burrow detections 41 plus a 785-foot buffer, excluding areas of habitat types not suitable for WGS foraging or 42 burrow establishment. Category 1 habitat does not include single-burrow areas that

1 were found active in a prior survey year but that are not active in the current survey 2 year. 3 95 The certificate holder shall implement measures to mitigate impacts to sensitive wildlife habitat 4 during construction including, but not limited to, the following: 5 (a) The certificate holder shall not construct any facility components within areas of 6 Category 1 habitat and shall avoid temporary disturbance of Category 1 habitat. 7 (b) Before beginning construction, but no more than two years prior to the beginning of 8 construction of a phase of the facility, the certificate holder shall hire a qualified 9 professional biologist to conduct a survey of all areas to be disturbed by construction for 10 threatened and endangered species. The certificate holder shall provide a written report 11 of the survey and a copy of the survey to the Department, the Oregon Department of 12 Fish and Wildlife (ODFW), and the Oregon Department of Agriculture (ODA). If the 13 surveys identify the presence of threatened or endangered species within the survey 14 area, the certificate holder shall implement appropriate measures to avoid a significant 15 reduction in the likelihood of survival or recovery of the species, as approved by the 16 Department, in consultation with ODA and ODFW. 17 (c) Before beginning construction of a phase of the facility, the certificate holder's qualified 18 professional biologist shall survey the Category 1 Washington ground squirrel habitat to 19 ensure that the sensitive use area is correctly marked with exclusion flagging and 20 avoided during construction. The certificate holder shall maintain the exclusion 21 markings until construction has been completed. 22 (d) Before beginning construction of a phase of the facility, certificate holder's qualified 23 professional biologist shall complete the avian use studies that began in September 24 2009 at six plots within or near the facility site as described in the Final Order on the 25 Application. The certificate holder shall provide a written report on the avian use studies 26 to the Department and to ODFW. 27 (e) Before beginning construction of a phase of the facility, certificate holder's qualified 28 professional biologist shall complete raptor nest surveys within the raptor nest survey 29 area as described in the Final Order on the Application. The purposes of the survey are 30 to identify any sensitive raptor nests near construction areas and to provide baseline 31 information on raptor nest use for analysis as described in the Wildlife Monitoring and 32 Mitigation Plan referenced in Condition 91. The certificate holder shall provide a written 33 report on the raptor nest surveys and the surveys to the Department and to ODFW. If 34 the surveys identify the presence of raptor nests within the survey area, the certificate 35 holder shall implement appropriate measures to assure that the design, construction 36 and operation of the facility are consistent with the fish and wildlife habitat mitigation 37 goals and standards of OAR 635-415-0025, as approved by the Department, in 38 consultation with ODFW. 39 (f) In the final design layout of the facility, the certificate holder shall locate facility 40 components, access roads and construction areas to avoid or minimize temporary and 41 permanent impacts to high quality native habitat and to retain habitat cover in the 42 general landscape where practicable.

1<u>96</u>During construction, the certificate holder shall avoid all construction activities within a 1,300-2foot buffer around potentially-active nest sites of the following species during the sensitive3period, as provided in this condition:

Species	Sensitive Period	Early Release Date
Swainson's hawk	April 1 to August 15	May 31
Ferruginous hawk	March 15 to August 15	May 31
Burrowing owl	April 1 to August 15	July 15

- During the year in which construction occurs, the certificate holder shall use a protocol
 approved by the Oregon Department of Fish and Wildlife (ODFW) to determine whether there
 are any active nests of these species within a half-mile of any areas that would be disturbed
 during construction. The certificate holder shall begin monitoring potential nest sites by March
 15 and shall continue monitoring until at least May 31 to determine whether any potentiallyactive nest sites become active during the sensitive period.
- 10 If any nest site is determined to be unoccupied by the early release date (May 31), then 11 unrestricted construction activities may occur within 1,300 feet of the nest site after that date. If 12 a nest is occupied by any of these species after the beginning of the sensitive period, the 13 certificate holder will flag the boundaries of a 1,300-foot buffer area around the nest site and 14 shall instruct construction personnel to avoid disturbance of the buffer area. During the 15 sensitive period, the certificate holder shall not engage in high-impact construction activities 16 (activities that involve blasting, grading or other major ground disturbance) within the buffer 17 area. The certificate holder shall restrict construction traffic within the buffer, except on public 18 roads, to vehicles essential to the limited construction activities allowed within the buffer.
- 19If burrowing owl nests are occupied during the sensitive period, the certificate holder may20adjust the 1,300-foot buffer around these nests after consultation with ODFW and subject to the21approval of the Department.
- The certificate holder shall hire a qualified independent professional biologist to observe the
 active nest sites during the sensitive period for signs of disturbance and to notify the
 Department of any non-compliance with this condition. If the biologist observes nest site
 abandonment or other adverse impact to nesting activity, the certificate holder shall implement
 appropriate mitigation, in consultation with ODFW and subject to the approval of the
 Department, unless the adverse impact is clearly shown to have a cause other than construction
 activity.
- The certificate holder may begin or resume construction activities within the buffer area before
 the ending day of the sensitive period with the approval of ODFW, after the young are fledged.
 The certificate holder shall use a protocol approved by ODFW to determine when the young are
 fledged (the young are independent of the core nest site).
- 3397The certificate holder shall protect the area within 1,300 feet of the BLM Horn Butte Wildlife34Area during the long-billed curlew nesting season (March 8 through June 15), as described in35this condition. Before beginning construction, the certificate holder shall provide to the

1 2 3 4 5 6 7 8 9 10		Department a map showing the areas of potential construction disturbance in the vicinity of the BLM lands that are part of the Horn Butte Wildlife Area and showing a 1,300-foot buffer from those areas. During the nesting season, the certificate holder shall not engage in high-impact construction activities (activities that involve blasting, grading or other major ground disturbance) or allow high levels of construction traffic within the buffer area. The certificate holder shall flag the boundaries of the 1,300-foot buffer area and shall instruct construction personnel to avoid any unnecessary activity within the buffer area. The certificate holder shall restrict construction traffic within the buffer, except on public roads, to vehicles essential to the limited construction activities allowed within the buffer. The certificate holder may engage in construction activities within the buffer area at times other than the nesting season.
11 12	<u>98</u>	The certificate holder shall implement measures to avoid or mitigate impacts to sensitive wildlife habitat during construction including, but not limited to, the following:
13 14		(a) Preparing maps to show occlusion areas that are off-limits to construction personnel, such as nesting or denning areas for sensitive wildlife species.
15		(b) Avoiding unnecessary road construction, temporary disturbance and vehicle use.
16 17		(c) Limiting construction work to approved and surveyed areas shown on facility constraints maps.
18 19 20		(d) Ensuring that all construction personnel are instructed to avoid driving cross-country or taking short-cuts within the site boundary or otherwise disturbing areas outside of the approved and surveyed construction areas.
21	<u>99</u>	The certificate holder shall reduce the risk of injuries to avian species by:
22 23		(a) Installing turbine towers that are smooth steel structures that lack features that would allow avian perching.
24 25		(b) Locating turbine towers to avoid areas of increased risk to avian species, such as cliff edges, narrow ridge saddles and gaps between hilltops.
26 27		(c) Installing meteorological towers that are non-guyed structures to eliminate the risk of avian collision with guy-wires.
28 29 30		(d) Designing and installing all aboveground transmission line support structures following the most current suggested practices for avian protection on power lines published by the Avian Power Line Interaction Committee.
31 32 33 34 35 36	<u>100</u>	The certificate holder shall hire a qualified environmental professional to provide environmental training during construction and operation. Environmental training includes information on the sensitive species present onsite, precautions to avoid injuring or destroying wildlife or sensitive wildlife habitat, exclusion areas, permit requirements and other environmental issues. The certificate holder shall instruct construction and operations personnel to report any injured or dead wildlife detected while on the site to the appropriate onsite environmental manager.

1 2 3 4 5 6	<u>101</u>	The certificate holder shall impose and enforce a construction and operation speed limit of 20 miles per hour throughout the facility site and, during the active squirrel season (March 1 to May 31), a speed limit of 10 miles per hour from one hour before sunset to one hour after sunrise on private roads near known Washington ground squirrel (WGS) colonies. The certificate holder shall ensure that all construction and operations personnel are instructed to watch out for and avoid WGS and other wildlife while driving through the facility site.
7	9. Vi	sual Effects Conditions
8	<u>102</u>	To reduce the visual impact of the facility, the certificate holder shall:
9 10		(a) Mount nacelles on smooth, steel structures, painted uniformly in a low-reflectivity, neutral white color.
11 12		(b) Paint the substation structures in a low-reflectivity neutral color to blend with the surrounding landscape.
13		(c) Not allow any advertising to be used on any part of the facility.
14 15 16 17		(d) Use only those signs required for facility safety, required by law or otherwise required by this site certificate, except that the certificate holder may erect a sign near the O&M buildings to identify the facility, may paint turbine numbers on each tower and may allow unobtrusive manufacturers' logos on turbine nacelles.
18		(e) Maintain any signs allowed under this condition in good repair.
19 20 21 22 23	<u>103</u>	The certificate holder shall design and construct the O&M buildings, Montague Wind substation, and buildings and containers associated with battery storage to be generally consistent with the character of similar buildings used by commercial farmers or ranchers in the area and shall paint the building in a low-reflectivity, neutral color to blend with the surrounding landscape. [AMD4AMD5]
24	<u>104</u>	The certificate holder shall not use exterior nighttime lighting except:
25 26		(a) The minimum turbine tower lighting required or recommended by the Federal Aviation Administration.
27 28		(b) Security lighting at the O&M buildings <u>building</u> and at the substationsMontague Wind substation, provided that such lighting is shielded or downward-directed to reduce glare.
29		(c) Minimum lighting necessary for repairs or emergencies.
30 31		(d) Minimum lighting necessary for construction directed to illuminate the work area and shielded or downward-directed to reduce glare.
32 33 34	<u>105</u>	The certificate holder shall maintain a minimum distance of 1,000 feet measured from the centerline of each turbine tower or meteorological tower to the centerline of the line-of-sight from the vantage point of the Fourmile Canyon interpretive site looking toward the visible

1 2		Oregon Trail ruts (bearing S 89-42-34 W from latitude, longitude: 45.622047, -120.044112) as described in the Final Order on the Application.
3	10. N	oise Control Conditions
4	<u>106</u>	To reduce construction noise impacts at nearby residences, the certificate holder shall:
5		(a) Confine the noisiest operation of heavy construction equipment to the daylight hours.
6 7		(b) Require contractors to install and maintain exhaust mufflers on all combustion engine- powered equipment; and
8 9		(c) Establish a complaint response system at the construction manager's office to address noise complaints.
10	<u>107</u>	The certificate holder shall provide to the Department:
11 12 13 14 15		 Prior to Phase 1 construction: a. Information that identifies the final design locations of (all turbines, to be built at the facility Frior to Phase 2 construction:
15 16 17		Final design locations of all <u>Phase 1 and Phase 2</u> noise-generating facility components
17 18 10		(all wind turbines; and substation transformers; inverters and transformers associated with the photovoltais solar array; and inverters and sooling systems associated with
20 21		battery storage system).
21 22 23		The maximum sound power level for the Phase 21 Montague Wind substation
23 24		inverters and cooling systems associated with battery storage system; and the
25		maximum sound power level and octave band data for the Phase 2 wind turbines
26		selected for the facility based on manufacturers' warranties or confirmed by other
27		means acceptable to the Department.
20 29		The results of noise analysis of Phase 1 and Phase 2 components the facility to be built
30		according to the final design performed in a manner consistent with the requirements of
31		OAR 340-035-0035(1)(b)(B)(iii) (IV) and (VI) demonstrating to the satisfaction of the
32		Department that the total noise generated by the facility (including the noise from wind
33		turbines , substation transformers, inverters and transformers associated with the
34		photovoltaic solar array; inverters and cooling systems associated with battery storage
35		system) and substation transformers,) would meet the ambient degradation test and
36		maximum allowable test at the appropriate measurement point for all potentially-
31 20		affected holse sensitive properties. The certificate holder shall verify that all holse
30 30		sensitive properties within one mile of the final design locations of noise-generating components for Phase 1 and Phase 2 the facility have been identified and included in the
40		preconstruction noise analysis based on review of the most recent property owner
41		information obtained from the Gilliam County Tax Assessor Roll
42		

1 2 3 4 5 6 7 8 9 10 11 12		For each noise-sensitive property where the certificate holder relies on a noise waiver to demonstrate compliance in accordance with OAR 340-035-0035(1)(b)(B)(iii)(III), a copy of the a legally effective easement or real covenant pursuant to which the owner of the property authorizes the certificate holder's operation of the facility to increase ambient statistical noise levels L10 and L50 by more than 10 dBA at the appropriate measurement point. The legally-effective easement or real covenant must: include a legal description of the burdened property (the noise-sensitive property); be recorded in the real property records of the county; expressly benefit the certificate holder; expressly run with the land and bind all future owners, lessees or holders of any interest in the burdened property; and not be subject to revocation without the certificate holder's written approval. [Final Order on ASC; AMD4AMD5]
13 14	<u>108</u>	During operation of the facility, the certificate holder shall implement measures to ensure compliance with the noise control regulation, including:
15 16		 Providing notice of the noise complaint system and how to file a noise complaint to noise sensitive receptors within 1-mile of noise generatingnoise generating components.
17 18 19 20 21 22 23 24 25		 b. Maintain a complaint response system to address noise complaints. The certificate holder shall promptly notify the Department of any complaints received regarding facility noise and of any actions taken by the certificate holder to address those complaints. In response to a complaint from the owner of a noise sensitive property regarding noise levels during operation of the facility, the Council may require the certificate holder to monitor and record the statistical noise levels to verify that the certificate holder is operating the facility in compliance with the noise control regulations. [AMD4AMD5]
26	11 W	aste Management Conditions
	11. 00	
27 28 29	<u>109</u>	The certificate holder shall provide portable toilets for on-site sewage handling during construction and shall ensure that they are pumped and cleaned regularly by a licensed contractor who is qualified to pump and clean portable toilet facilities.
27 28 29 30 31 32 33	<u>109</u> <u>110</u>	The certificate holder shall provide portable toilets for on-site sewage handling during construction and shall ensure that they are pumped and cleaned regularly by a licensed contractor who is qualified to pump and clean portable toilet facilities. During operation of the facility, the certificate holder shall discharge sanitary wastewater generated at the O&M buildings to <u>a</u> licensed on-site septic <u>systemssystem</u> in compliance with State permit requirements. The certificate holder shall design the septic <u>systemssystem</u> for a discharge capacity of less than 2,500 gallons per day.
27 28 29 30 31 32 33 34 35	<u>109</u> <u>110</u> <u>111</u>	The certificate holder shall provide portable toilets for on-site sewage handling during construction and shall ensure that they are pumped and cleaned regularly by a licensed contractor who is qualified to pump and clean portable toilet facilities. During operation of the facility, the certificate holder shall discharge sanitary wastewater generated at the O&M buildings to <u>a</u> licensed on-site septic <u>systemssystem</u> in compliance with State permit requirements. The certificate holder shall design the septic <u>systemssystem</u> for a discharge capacity of less than 2,500 gallons per day. The certificate holder shall implement a waste management plan during construction that includes but is not limited to the following measures:
27 28 29 30 31 32 33 34 35 36	110 109 110 111	The certificate holder shall provide portable toilets for on-site sewage handling during construction and shall ensure that they are pumped and cleaned regularly by a licensed contractor who is qualified to pump and clean portable toilet facilities. During operation of the facility, the certificate holder shall discharge sanitary wastewater generated at the O&M buildings to a licensed on-site septic systemssystem in compliance with State permit requirements. The certificate holder shall design the septic systemssystem for a discharge capacity of less than 2,500 gallons per day. The certificate holder shall implement a waste management plan during construction that includes but is not limited to the following measures: (a) Recycling steel and other metal scrap.
27 28 29 30 31 32 33 34 35 36 37	11. . <u>109</u> <u>110</u> <u>111</u>	 The certificate holder shall provide portable toilets for on-site sewage handling during construction and shall ensure that they are pumped and cleaned regularly by a licensed contractor who is qualified to pump and clean portable toilet facilities. During operation of the facility, the certificate holder shall discharge sanitary wastewater generated at the O&M buildings to <u>a</u> licensed on-site septic <u>systemssystem</u> in compliance with State permit requirements. The certificate holder shall design the septic <u>systemssystem</u> for a discharge capacity of less than 2,500 gallons per day. The certificate holder shall implement a waste management plan during construction that includes but is not limited to the following measures: (a) Recycling steel and other metal scrap. (b) Recycling wood waste.
27 28 29 30 31 32 33 34 35 36 37 38	11. . 109 110	 The certificate holder shall provide portable toilets for on-site sewage handling during construction and shall ensure that they are pumped and cleaned regularly by a licensed contractor who is qualified to pump and clean portable toilet facilities. During operation of the facility, the certificate holder shall discharge sanitary wastewater generated at the O&M buildings to a licensed on-site septic systemssystem in compliance with State permit requirements. The certificate holder shall design the septic systemssystem for a discharge capacity of less than 2,500 gallons per day. The certificate holder shall implement a waste management plan during construction that includes but is not limited to the following measures: (a) Recycling steel and other metal scrap. (b) Recycling wood waste. (c) Recycling packaging wastes such as paper and cardboard.

$\begin{vmatrix} 1 \\ 2 \\ 3 \\ 4 \end{vmatrix}$		(e) Segregating all hazardous wastes such as used oil, oily rags and oil-absorbent materials, and mercury-containing lights and lithium ion, flow, lead acid and nickel cadmium batteries for disposal by a licensed firm specializing in the proper recycling or disposal of hazardous wastes. [AMD4AMD5]
5 6 7		(f) Confining concrete delivery truck rinse-out within the foundation excavation, discharging rinse water into foundation holes and burying other concrete waste as part of backfilling the turbine foundation.
8 9	<u>112</u>	The certificate holder shall implement a waste management plan during facility operation that includes but is not limited to the following measures:
10		(a) Training employees to minimize and recycle solid waste.
11		(b) Recycling paper products, metals, glass and plastics.
12		(c) Recycling used oil and hydraulic fluid.
13		(d) Collecting non-recyclable waste for transport to a local landfill by a licensed waste hauler.
14 15 16 17		(e) Segregating all hazardous, non-recyclable wastes such as used oil, oily rags and oil- absorbent materials, <u>and mercury-containing lights-and lithium-ion, flow, lead-acid and</u> <u>nickel-cadmium batteries</u> for disposal by a licensed firm specializing in the proper recycling or disposal of hazardous wastes. [<u>AMD4<u>AMD5</u>]</u>
18	VI.	CONDITIONS ADDED BY AMENDMENT # 1 OF MONTAGUE
19 20 21 22 23 24 25	<u>113</u>	The transfer of the First Amended Site Certificate from the certificate holder to Portland General Electric (PGE), the transferee, shall not be effective until PGE executes in closing the form of site certificate naming PGE the certificate holder, which is attached as Attachment B to the Final Order on Amendment #1. Upon closing, the First Amended Site Certificate naming PGE as the certificate holder shall be in full force and effect and the First Amended Site Certificate naming Montague Wind Power LLC as the certificate holder shall be considered rescinded and void in its entirety[Removed by Amendment #2.]
26 27 28	<u>114</u>	Should the closing contemplated in Condition 113 not occur within 18 months of the effective date of the First Amended Site Certificate to Montague Wind Power LLC, the Council's transfer approval within the Final Order on Amendment #1 shall be void. [Removed by Amendment #2.]
26 27 28 29 30 31	<u>114</u> <u>115</u>	Should the closing contemplated in Condition 113 not occur within 18 months of the effective date of the First Amended Site Certificate to Montague Wind Power LLC, the Council's transfer approval within the Final Order on Amendment #1 shall be void. [Removed by Amendment #2.] PGE must provide the Department a copy of the executed First Amended Site Certificate and documentation of the asset purchase agreement within 7 days of closing. [Removed by Amendment #2.]
26 27 28 29 30 31 32	<u>114</u> <u>115</u> VII.	Should the closing contemplated in Condition 113 not occur within 18 months of the effective date of the First Amended Site Certificate to Montague Wind Power LLC, the Council's transfer approval within the Final Order on Amendment #1 shall be void. [Removed by Amendment #2.] PGE must provide the Department a copy of the executed First Amended Site Certificate and documentation of the asset purchase agreement within 7 days of closing. [Removed by Amendment #2.] CONDITIONS ADDED BY AMENDMENT #4 OF MONTAGUE

1 2 3		 Prior to construction, the certificate holder shall provide a description to the Department of applicable regulations and manufacturer recommendations applicable to the transport and disposal of batteries and battery related waste.
4 5 6		b. During construction and operation, the certificate holder shall report to the Department any potential compliance issue or cited violations of its third-party contractor for the requirements identified in sub(a) of this condition.
7		[AMD4]
8	<u>117</u>	- During facility operation, the certificate holder shall conduct monthly inspections of the battery
9		storage systems, in accordance with manufacturer specifications. The certificate holder shall
10 11		maintain documentation of inspections, including any corrective actions, and shall make
11		available for review upon request by the Department. [AlviD4]
13	[Remc	oved by Amendment #5.1
14		
15 16	VII	
17	<u>118</u>	The site certificate authorizes shared use of related or supporting facilities including the
18		Montague Wind collector substation, 230 kV transmission line, access roads, and
19		temporary staging areas under the site certificates issued for the Montague Wind
20		Facility, Montague Solar Facility and Oregon Trail Solar Facility.
21		a. Within 30 days of shared use, the certificate holder must provide evidence to the
22		Department that the certificate holders have an executed agreement for shared use
23		of facilities.
24		b. If certificate holders of Montague Wind, Montague Solar or Oregon Trail Solar
25		Facility propose to substantially modify any of the shared facilities listed in sub(a) of
26		this condition, each certificate holder shall submit an amendment determination
27		request or request for site certificate amendment to obtain a determination from
28		the Department on whether a site certificate amendment is required or to process
29		an amendment for both site certificates.
30		c. Prior to facility decommissioning or if facility operations cease, each certificate
31		holder shall submit an amendment determination request or request for site
32		certificate amendment to document continued ownership and full responsibility,
33 24		including coverage of full decommissioning amount of the shared facilities in the
34 25		bond or letter of credit pursuant to Condition 32, for the operational facility, if
33 36		tacilities are decommissioned at different times.
37	١.	SUCCESSORS AND ASSIGNS
<i></i>		

To transfer this site certificate or any portion thereof or to assign or dispose of it in any other manner,
 directly or indirectly, the certificate holder shall comply with OAR 345-027-01000400.

40 II. SEVERABILITY AND CONSTRUCTION

If any provision of this agreement and certificate is declared by a court to be illegal or in conflict with
 any law, the validity of the remaining terms and conditions shall not be affected, and the rights and

1	obligations of	the parties	shall be	construed a	and enforced as if th	e agreement and	certificate did not
•							

2 contain the particular provision held to be invalid.

3 III. GOVERNING LAW AND FORUM

4 This site certificate shall be governed by the laws of the State of Oregon. Any litigation or arbitration 5 arising out of this agreement shall be conducted in an appropriate forum in Oregon.

6 IV. EXECUTION

- 7 This site certificate may be executed in counterparts and will become effective upon signature by the
- 8 Chair of the Energy Facility Siting Council and the authorized representative of the certificate holder.
- 9
 10 IN WITNESS WHEREOF, this site certificate has been executed by the State of Oregon, acting by and
 11 through its Energy Facility Siting Council, and by Montague Wind Power Facility, LLC.
- 12
- 13

ENERGY FACILITY SITTING COUNCIL	MONTAGUE WIND POWER FACILITY, LLC
Ву:	Ву:
Print:	Print:
Date:	Date:
	and
	Ву:
	Print:
	Date:

- 14
- 15
- 16
- 17



Figure 1: Site Boundary and 230 kV transmission line corridor

3 4

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MONTAGUE WIND POWER FACILITY FIFTH AMENDED SITE CERTIFICATE — 2020

ENERGY FACILITY SITING COUNCIL

OF THE

STATE OF OREGON

Fourth Amended Site Certificate

for the

Montague Wind PowerSolar Facility

August 23, 2019

The Oregon Energy Facility Siting Council

INTRODUCTION Ι.

2 The Oregon Energy Facility Siting Council (Council) issues this site certificate for the Montague Wind 3 PowerSolar Facility (the facility) in the manner authorized under ORS Chapter 469. This site certificate is 4 a binding agreement between the State of Oregon (State), acting through the Council, and Montague 5 Wind Power FacilitySolar, LLC (certificate holder), a wholly owned subsidiary of Avangrid Renewables, 6 LLC (parent company) authorizing the certificate holder to construct and operate the facility in Gilliam 7 County, Oregon. -[Amendment #3]-5]

8 The findings of fact, reasoning and conclusions of law underlying the terms and conditions of this site 9 certificate are set forth in the following documents, incorporated herein by this reference: -(a) the Final 10 Order on the Application for Site Certificate for the Montague Wind Power Facility issued on September 11 10, 2010 (hereafter, Final Order on the Application), (b) the Final Order on Amendment #1 issued on 12 June 21, 2013; and, (c) the Final Order on Amendment #2 issued on December 4, 2015; (d) the Final 13 Order on Amendment #3 issued on July 11, 2017; and (e) the Final Order on Amendment #4 issued on 14 August 23, 2019; and (f) the Final Order on Amendment #5 issued on , 2020. In interpreting this 15 site certificate, any ambiguity will be clarified by reference to the following, in order of priority: -(1) this 16 FourthFifth Amended Site Certificate, (2) the Final Order on Amendment #45, (3) the Final Order on 17 Amendment #34, (4) the Final Order on Amendment #23, (5) the Final Order on Amendment #1 #2, (6) 18 the Final Order on Amendment #1, (7) the Final Order on the Application, and (78) the record of the 19 proceedings that led to the Final Order on the Application, the Final Order on Amendment #1, and the 20 Final Order on Amendment #2. [Amendment #2] 21 As authorized in Final Order on Amendment #5, the Montague Wind Power Facility certificate holder 22 obtained approval to split the Montague Wind Power Facility site certificate into three site certificates – 23 Montague Wind Power Facility, Montague Solar Facility and Oregon Trail Solar Facility. Each of these 24 certificate holders is a wholly owned subsidiary and LLC created by Avangrid Renewables, LLC resulting 25 in each certificate holder owned by the same parent company. In addition, these facilities share facility 26 components, interconnecting facility components and long-term operation. 27 28 Because the findings of fact, reasoning and conclusions of law underlying the terms and conditions of

- 29 the site certificate are set forth in the 2010 Final Order on the Application for Site Certificate and 30
- subsequent Final Orders on Requests for Amendment 1 through 5 for the Montague Wind Power
- 31 Facility, which are incorporated by reference into the site certificate, these underlying findings, including
- 32 any findings establishing the predevelopment condition of the site and impacts of approved facility
- 33 components continue to have bearing on the analysis and findings required to approve any future
- 34 changes to the site certificates for the successor facilities. In other words, environmental impacts
- 35 evaluated in future site certificate amendment requests shall be based on 2010 predevelopment 36 conditions and the incremental change in environmental impact based on the original site certificate
- 37 application review and subsequent amendments to the Montague Wind Power Facility site certificate,
- 38 either as approved or in operation, at the time of the amendment request. This clarification is intended
- 39 to establish that, with the splitting of facility components under three site certificates, baseline
- 40 conditions and environmental impacts shall not adjusted in a way that results in greater overall impacts
- 41 than the level of impacts that would be authorized under one site certificate.
- 42

1 The definitions in ORS 469.300 and OAR 345-001-0010 apply to terms used in this site certificate, except 2 where otherwise stated or where the context clearly indicates otherwise.

II. SITE CERTIFICATION

3 (a) To the extent authorized by state law and subject to the conditions set forth herein, the 4 State authorizes the certificate holder to construct, operate and retire a wind and 5 photovoltaic (PV) solar energy facility, together with certain related or supporting 6 facilities, at the site in Gilliam County, Oregon, as described in Section III of this site 7 certificate. ORS 469.401(1). [ASC; AMD4AMD5] 8 This site certificate is effective until it is terminated under OAR 345-027-0110 or the (a) 9 rules in effect on the date that termination is sought or until the site certificate is 10 revoked under ORS 469.440 and OAR 345-029-0100 or the statutes and rules in effect 11 on the date that revocation is ordered. ORS 469.401(1). 12 (a) This site certificate does not address, and is not binding with respect to, matters that 13 were not addressed in the Final Order on the Application, Final Order on Amendment #1 14 Final Order on Amendment #2, Final Order on Amendment #3, Final Order on 15 Amendment #4, and Final Order on Amendment #45. Such matters include, but are not 16 limited to: building code compliance, wage, hour and other labor regulations, local 17 government fees and charges and other design or operational issues that do not relate 18 to siting the facility (ORS 469.401(4)) and permits issued under statutes and rules for 19 which the decision on compliance has been delegated by the federal government to a 20 state agency other than the Council. 469.503(3). [ASC; AMD1; AMD2; AMD3; AMD4; 21 AMD5 22 (a) Both the State and the certificate holder shall abide by local ordinances, state law and 23 the rules of the Council in effect on the date this site certificate is executed. ORS 24 469.401(2). In addition, upon a clear showing of a significant threat to public health, 25 safety or the environment that requires application of later-adopted laws or rules, the 26 Council may require compliance with such later-adopted laws or rules. ORS 469.401(2). 27 (a) For a permit, license or other approval addressed in and governed by this site 28 certificate, the certificate holder shall comply with applicable state and federal laws 29 adopted in the future to the extent that such compliance is required under the 30 respective state agency statutes and rules. ORS 469.401(2). 31 (a) Subject to the conditions herein, this site certificate binds the State and all counties, 32 cities and political subdivisions in Oregon as to the approval of the site and the 33 construction, operation and retirement of the facility as to matters that are addressed in 34 and governed by this site certificate. ORS 469.401(3). 35 (a) Each affected state agency, county, city and political subdivision in Oregon with 36 authority to issue a permit, license or other approval addressed in or governed by this 37 site certificate shall, upon submission of the proper application and payment of the 38 proper fees, but without hearings or other proceedings, issue such permit, license or 39 other approval subject only to conditions set forth in this site certificate. ORS 40 469.401(3).

- 1(a)After issuance of this site certificate, each state agency or local government agency that2issues a permit, license or other approval for the facility shall continue to exercise3enforcement authority over such permit, license or other approval. ORS 469.401(3).
- 4(a)After issuance of this site certificate, the Council shall have continuing authority over5the site and may inspect, or direct the Oregon Department of Energy (Department) to6inspect, or request another state agency or local government to inspect, the site at any7time in order to ensure that the facility is being operated consistently with the terms8and conditions of this site certificate. ORS 469.430.
- 9(a)Following the completion of surveys required by this site certificate, the Department will10present the results of those surveys and required consultations at the next regularly11scheduled Council meeting. [AMD2]
 - III. DESCRIPTION
- 12 **1.** The Facility
- 13 (a) The Energy Facility
- 14 The Montague Wind PowerSolar Facility is an electric power generating plant developed in two phases,
- 15 Phase 1 and Phase 2. Phase 1 consists of 56 wind turbines, each consisting of a nacelle, a three-bladed
- 16 rotor, turbine tower and foundations. The nacelle houses the equipment such as the gearbox,
- 17 generator, brakes, and control systems for the turbines.

18 Phase 2 is approved to consist of a combination of up to 81 wind turbines and a solar photovoltaic array 19 on up to 1, 189496 acres of an approved solar micrositing area. The solar array would be composed of 20 solar modules, which are themselves composed of either mono-crystalline or poly-crystalline cells. In 21 addition to the solar modules, the array would also include a tracker system to allow the solar modules 22 to follow the path of the sun throughout the day; cables; inverters; and transformers. Within the solar 23 micrositing area, solar photovoltaic energy generation equipment could include modules consisting of 24 solar panels, trackers, racks, posts, inverter/transformer units and above- and belowground cabling. 25 Solar panels would be supported by galvanized steel posts, which would be hydraulically driven into the 26 ground at a depth of 5 to 8 feet, with an approximately 4 to 5.5-foot aboveground height. Solar panels 27 would be designed with anti-reflective coating. Modules would be placed on non-specular metal 28 galvanized steel racks, with heights ranging from 4 to 15 feet at full tilt. To convert energy generated 29 within the modules from alternating current (ac) to direct current (dc), inverter/transformer units would 30 be installed. Solar photovoltaic energy generation equipment would be contained by an approximately 31 8-foot chain-link fence extending around the perimeter. Access to solar facility components would be 32 provided via two new access points on the north side of Bottemiller Lane. The solar array would be 33 connected to the power collection system as described below. The energy facility is described 34 further in the Final Order on the Application, Final Order on Amendment #1, Final Order on 35 Amendment #2, Final Order on Amendment #3, Amendment #4 and the Final Order on 36 Amendment #45.

- 37
- 38 **(b)** Related or Supporting Facilities

- 1 The facility includes the following related or supporting facilities described below and in greater detail in
- 2 the Final Order on the Application, Final Order on Amendment #1, Final Order on Amendment #2, Final
- 3 Order on Amendment #3, Amendment #4 and the Final Order on Amendment #45:
 - Power collection system
 - Control system

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- Substations and 230-kV transmission lines
- Battery storage system
- 8 Meteorological towers
 - Operations and maintenance facilities(O&M) building
- 10 Access roads
- 11 Public roadway modifications
- 12 Temporary construction areas

13 **Power Collection System**

- 14 A power collection system operating at 34.5 kilovolts (kV) transports power from each turbinethe solar
- 15 <u>array</u> to <u>athe</u> collector substation. To the extent practicable, the collection system is installed
- 16 underground at a depth of at least three **fedfeet**. Not more than 27 miles of the collector system
- 17 <u>combined across facility s</u> is installed aboveground.

18 Control System

- 19 A fiber optic communications network links the wind turbinessolar array to a central computer at the
- 20 Phase 2 O&M buildings building shared with the Oregon Trail Solar facility. A Supervisory, Control and
- 21 Data Acquisition (SCADA) system collects operating and performance data from each wind turbine and
- 22 from the facility as a whole and allows remote operation of the wind turbines facility.

23 Substations and 230-kV Transmission Lines

- 24 The facility includes two collector substations, one associated. One substation ("Montague Wind
- 25 <u>substation") is shared</u> with Phase 1the Montague Wind Power facility, and the second associated with
- 26 ("Phase 2. Montague Solar collector substation") is shared with the Oregon Trail Solar facility. An
- 27 aboveground, single-circuit 230-kV transmission line connects the Phase 2Montague Solar collector
- 28 substation to the Phase 1 Montague Wind substation. An aboveground, single-circuit 230-kV
- 29 transmission line connects the Phase 1 substation to the 500-kV Slatt-Buckley transmission line owned
- 30 by the Bonneville Power Administration (BPA) at the Slatt substation.

31 Battery Storage

- 32 Phase 2<u>The facility</u> is approved to include a battery storage system<u>- shared with the Oregon Trail Solar</u>
- 33 <u>facility</u>. The battery storage system would be capable of storing up to 100 MW of wind or solar energy
- 34 generated by the Facility, and would be used to stabilize the wind or solar resource through dispatching
- 35 of energy stored in the battery system. The battery system is placed in a series of containers or building
- 36 located near the <u>Phase 2Montague Solar collector</u> substation.

- 1 The battery system would be composed of either lithium-ion (Li-ion) batteries or a flow battery. Lithium-
- 2 ion batteries are a solid-state rechargeable battery utilizing lithium ions in an electrolyte. Flow batteries
- 3 are composed of a variety of different technologies; however, all flow batteries dispatch electricity by
- 4 allowing the migration of electrons from a positive ion tank to a negative ion tank. The electrons migrate
- 5 between solutions via a membrane.
- 6 The battery storage would occupy up to 6 acres and would include batteries and racks or containers,
- 7 inverters, isolation transformers, and switchboards, an approximately 20-foot warehouse-type building,
- 8 medium-voltage and low-voltage electrical systems, fire suppression, heating, ventilation, and air-
- 9 conditioning systems, building auxiliary electrical systems, and network/SCADA systems. Battery storage
- 10 would include a cooling system (more advanced systems required for Li-ion), which may include a
- 11 separate chiller plant located outside the battery racks with chillers, pumps, and heat exchangers. High-
- 12 voltage (HV) equipment would include a step-up transformer, HV circuit breaker, HV current
- 13 transformers and voltage transformers, a packaged control building for the HV breaker and transformer
- 14 equipment, HV towers, structures, and HV cabling. The battery storage area would be enclosed by
- 15 approximately 2,140 feet of continuous chain-link perimeter fencing 8 feet in height, with two 16-foot-
- 16 wide gates and one pedestrian, 4-foot-wide gate.
- 17

18 <u>Meteorological Towers</u>

19 The facility includes up to eight permanent meteorological towers.

20 Operations and Maintenance FacilitiesBuilding

- 21 The facility includes two operations and maintenance (O&M) facilities, one associated O&M building
- 22 ("Montague Solar O&M building") shared with Phase 1 and the second with Phase 2. Oregon Trail Solar
- 23 <u>facility</u>. An on-site well at each<u>Montague Solar</u> O&M facilitybuilding supplies water for use during
- 24 facility operation. Sewage is discharged to an on-site septic system.

25 Access Roads

The facility includes access roads to provide access to the turbine strings, solar array_, battery storage system, and other related or supporting components.

28 Public Roadway Modifications

- 29 The certificate holder may construct improvements to existing state and county public roads that are
- 30 necessary for construction of the facility. These modifications would be confined to the existing road
- 31 rights-of-way and would be undertaken with the approval of the Gilliam County Road Department or the
- 32 Oregon Department of Transportation, depending on the location of the improvement.

33 Temporary Construction Areas

- 34 During construction, the facility includes temporary laydown areas used to stage construction and store
- supplies and equipment. Construction crane paths are used to move construction cranes between
 turbine strings.

37 (c) Shared Related or Supporting Facilities

MONTAGUE WIND POWERSOLAR FACILITY FOURTH AMENDED SITE CERTIFICATE - August 2019 - 2020

1 The site certificates for the Montague Solar Facility, Oregon Trail Solar Facility and Montague Wind 2 Power Facility were originally approved as one site certificate for the Montague Wind Power Facility 3 (September 2010 – September 2019). In XX 2020, facility components were split or allocated into three 4 separate site certificates, but identified that certain related or supporting facilities would be shared or 5 used by each facility. Sharing of facility components, or use by multiple facilities, is allowable in the EFSC 6 process when the compliance obligation and applicable regulatory requirements for the shared facilities 7 is adequately covered under each site certificate, including under normal operational circumstances, 8 ceasing/termination of operation, emergencies and compliance issues or violations. 9 10 The certificate holder is authorized to share related or supporting facilities between the Montague Solar 11 Facility, Oregon Trail Solar Facility and Montague Wind Power Facility including the Montague Wind 12 collector substation, 230 kV transmission line, temporary laydown areas, and access roads. The 13 certificate holder is authorized to share related or supporting facilities between the Montague Solar 14 Facility and Oregon Trail Solar Facility including the Montague Solar collector substation, 230 kV 15 transmission line, O&M building and battery storage. These related or supporting facilities are included 16 in each site certificate. Compliance responsibility with site certificate conditions and EFSC standards 17 which apply to these shared related or supporting facilities are shared between site certificates and 18 certificate holders. In accordance with Condition 118, if any certificate holder substantially modifies a 19 shared related or supporting facility or ceases facility operation, each certificate holder would be 20 obligated to submit an amendment determination request or request for amendment to the 21 Department to determine the appropriate process for evaluating the change and ensuring full regulatory 22 coverage under each site certificate, or remaining site certificate if either is terminated, in the future. 23 Additionally, each certificate holder is obligated to demonstrate to the Department that a legally binding 24 agreement has been fully executed between certificate holders to ensure approval and agreement of

25 access to the shared resources has been obtained prior to operation of shared facilities.

26 **2.** Location of the Facility

The facility is located south of Arlington, in Gilliam County, Oregon. The facility is located on private landsubject to easements or lease agreements with landowners.

IV. CONDITIONS REQUIRED BY COUNCIL RULES

This section lists conditions required by OAR 345-025-0006 (Mandatory Conditions in Site Certificates),
 OAR 345025-0010 (Site Specific Conditions), OAR 345-025-0016 (Monitoring and Mitigation Conditions)
 and OAR Chapter 345, Division 26 (Construction and Operation Rules for Facilities). These conditions

32 should be read together with the specific facility conditions listed in Section V to ensure compliance with

33 the siting standards of OAR Chapter 345, Divisions 22 and 24, and to protect the public health and

34 safety. In these conditions the definitions in OAR 345-001-0010 apply.

- 35 The obligation of the certificate holder to report information to the Oregon Department of Energy
- 36 (Department) or the Council under the conditions listed in this section and in Section V is subject to the
- provisions of ORS 192.502 et seq. and ORS 469.560. To the extent permitted by law, the Department
- 38 and the Council will not publicly disclose information that may be exempt from public disclosure if the
- 39 certificate holder has clearly labeled such information and stated the basis for the exemption at the time
- 40 of submitting the information to the Department or the Council. If the Council or the Department
- 41 receives a request for the disclosure of the information, the Council or the Department, as appropriate,

1 will make a reasonable attempt to notify the certificate holder and will refer the matter to the Attorney

2 General for a determination of whether the exemption is applicable, pursuant to ORS 192.450.

3 In addition to these conditions, the site certificate holder is subject to all conditions and requirements

4 contained in the rules of the Council and in local ordinances and state law in effect on the date the

5 certificate is executed. Under ORS 469.401(2), upon a clear showing of a significant threat to the public

6 health, safety or the environment that requires application of later-adopted laws or rules, the Council

7 may require compliance with such later-adopted laws or rules.

8 The Council recognizes that many specific tasks related to the design, construction, operation and

9 retirement of the facility will be undertaken by the certificate holder's agents or contractors.

10 Nevertheless, the certificate holder is responsible for ensuring compliance with all provisions of the site

11 certificate.

121OAR 345-025-0006(1): The Council shall not change the conditions of the site certificate except13as provided for in OAR Chapter 345, Division 27.

142OAR 345-025-0006(2): The certificate holder shall submit a legal description of the site to the15Department of Energy within 90 days after beginning operation of the facility. The legal16description required by this rule means a description of metes and bounds or a description of17the site by reference to a map and geographic data that clearly and specifically identifies the18outer boundaries that contain all parts of the facility.

- 193OAR 345-025-0006(3): The certificate holder shall design, construct, operate and retire the20facility:
- 21 (a) Substantially as described in the site certificate;
- (b) In compliance with the requirements of ORS Chapter 469, applicable Council rules, and
 applicable state and local laws, rules and ordinances in effect at the time the site
 certificate is issued; and (c) In compliance with all applicable permit requirements of
 other state agencies.
- 264OAR 345-025-0006(4): The certificate holder shall begin and complete construction of the27facility by the dates specified in the site certificate. (See Conditions 24 and 25.)

28 OAR 345025-0006(5): Except as necessary for the initial survey or as otherwise allowed for wind <u>5</u> 29 energy facilities, transmission lines or pipelines under this section, the certificate holder shall 30 not begin construction, as defined in OAR 345-001-0010, or create a clearing on any part of the 31 site until the certificate holder has construction rights on all parts of the site. For the purpose of 32 this rule, "construction rights" means the legal right to engage in construction activities. For 33 wind energy facilities, transmission lines or pipelines, if the certificate holder does not have 34 construction rights on all parts of the site, the certificate holder may nevertheless begin 35 construction, as defined in OAR 345-001-0010, or create a clearing on a part of the site if the 36 certificate holder has construction rights on that part of the site and:

37(a)The certificate holder would construct and operate part of the facility on that part of the
site even if a change in the planned route of the transmission line or pipeline occurs

1 during the certificate holder's negotiations to acquire construction rights on another 2 part of the site; or 3 (b) The certificate holder would construct and operate part of a wind energy facility on that 4 part of the site even if other parts of the facility were modified by amendment of the 5 site certificate or were not built. 6 OAR 345-025-0006(6): - If the certificate holder becomes aware of a significant environmental <u>6</u> 7 change or impact attributable to the facility, the certificate holder shall, as soon as possible, 8 submit a written report to the Department describing the impact on the facility and any affected 9 site certificate conditions. [AMD4AMD5] 10 <u>7</u> OAR 345-025-0006(7): The certificate holder shall prevent the development of any conditions on 11 the site that would preclude restoration of the site to a useful, non-hazardous condition to the 12 extent that prevention of such site conditions is within the control of the certificate holder. 13 8 OAR 345-025-0006(8): Before beginning construction of the facility-or a phase of the facility, the 14 certificate holder shall submit to the State of Oregon, through the Council, a bond or letter of 15 credit, in a form and amount satisfactory to the Council to restore the site or a portion of the 16 site to a useful, non-hazardous condition. The certificate holder shall maintain a bond or letter 17 of credit in effect at all times until the facility or the phase of the facility has been retired. The 18 Council may specify different amounts for the bond or letter of credit during construction and 19 during operation of the facility or a phase of the facility. (See Condition 32.) [AMD4AMD5] 20 <u>9</u> OAR 345-025-0006(9): The certificate holder shall retire the facility if the certificate holder 21 permanently ceases construction or operation of the facility. The certificate holder shall retire 22 the facility according to a final retirement plan approved by the Council, as described in OAR 23 345-027-0110. The certificate holder shall pay the actual cost to restore the site to a useful, non-24 hazardous condition at the time of retirement, notwithstanding the Council's approval in the 25 site certificate of an estimated amount required to restore the site. 26 10 OAR 345-025-0006(10): The Council shall include as conditions in the site certificate all 27 representations in the site certificate application and supporting record the Council deems to be 28 binding commitments made by the applicant. 29 OAR 345-025-0006(11): Upon completion of construction, the certificate holder shall restore <u>11</u> 30 vegetation to the extent practicable and shall landscape all areas disturbed by construction in a 31 manner compatible with the surroundings and proposed use. Upon completion of construction, 32 the certificate holder shall remove all temporary structures not required for facility operation 33 and dispose of all timber, brush, refuse and flammable or combustible material resulting from 34 clearing of land and construction of the facility. 35 12 OAR 345-025-0006(12): The certificate holder shall design, engineer and construct the facility to 36 avoid dangers to human safety and the environment presented by seismic hazards affecting the 37 site that are expected to result from all maximum probable seismic events. As used in this rule 38 "seismic hazard" includes ground shaking, ground failure, landslide, liquefaction triggering and 39 consequences (including flow failure, settlement buoyancy, and lateral spreading, cyclic 40 softening of clays and silts, fault rupture, directivity effects and soil-structure interaction. For

- coastal sites, this also includes tsunami hazards and seismically-induced subsidence.
 [AMD4AMD5]
- 313OAR 345-025-0006(13): The certificate holder shall notify the Department, the State Building4Codes Division and the Department of Geology and Mineral Industries promptly if site5investigations or trenching reveal that conditions in the foundation rocks differ significantly6from those described in the application for a site certificate. After the Department receives the7notice, the Council may require the certificate holder to consult with the Department of Geology8and Mineral Industries and the Building Codes Division to propose and implement corrective or9mitigation actions.
- 1014OAR 345-025-0006(14): The certificate holder shall notify the Department, the State Building11Codes Division and the Department of Geology and Mineral Industries promptly if shear zones,12artesian aquifers, deformations or clastic dikes are found at or in the vicinity of the site. After13the Department receives notice, the Council may require the certificate holder to consult with14the Department of Geology and Mineral Industries and the Building Codes Division to propose15and implement corrective or mitigation actions. [AMD4AMD5]
- 1615OAR 345-025-0006(15): Before any transfer of ownership of the facility or ownership of the site17certificate holder, the certificate holder shall inform the Department of the proposed new18owners. The requirements of OAR 345-027-0100 apply to any transfer of ownership that19requires a transfer of the site certificate.
- 20 16 OAR 345-025-0006(16): If the Council finds that the certificate holder has permanently ceased 21 construction or operation of the facility without retiring the facility according to a final 22 retirement plan approved by the Council, as described in OAR 345-027-0110, the Council shall 23 notify the certificate holder and request that the certificate holder submit a proposed final 24 retirement plan to the Department within a reasonable time not to exceed 90 days. If the 25 certificate holder does not submit a proposed final retirement plan by the specified date, the 26 Council may direct the Department to prepare a proposed final retirement plan for the Council's 27 approval. Upon the Council's approval of the final retirement plan, the Council may draw on the 28 bond or letter of credit described in OAR 345-027-0020(8) to restore the site to a useful, non-29 hazardous condition according to the final retirement plan, in addition to any penalties the 30 Council may impose under OAR Chapter 345, Division 29. If the amount of the bond or letter of 31 credit is insufficient to pay the actual cost of retirement, the certificate holder shall pay any 32 additional cost necessary to restore the site to a useful, non-hazardous condition. After 33 completion of site restoration, the Council shall issue an order to terminate the site certificate if 34 the Council finds that the facility has been retired according to the approved final retirement 35 plan.
- 36 <u>17</u> <u>OAR 35-027-0023(4)</u>:
- 37 (a) The certificate holder shall design, construct and operate the transmission line in accordance
 38 with the requirements of the National Electrical Safety Code approved on June 3, 2011, by the
 39 American National Standards Institute, and
- 40 (b) The certificate holder shall develop and implement a program that provides reasonable
 41 assurance that all fences, gates, cattle guards, trailers, or other objects or structures of a

- 1permanent nature that could become inadvertently charged with electricity are grounded or2bonded throughout the life of the line. [Amendment 3, Removed by Amendment 4]
- 318OAR 345-025-0010(5): The certificate holder is authorized to construct a 230-_kV transmission4line anywhere within the approved corridor, subject to the conditions of the site certificate. The5approved corridor is ½-mile in width and extends approximately 14 miles from the Phase62Montague Solar collector substation to the Phase 1Montague Wind7BPA's Slatt Substation as presented in Figure 1 of the site certificate.8[OAR 345-025-0010(5); ASC; AMD4AMD5]
- 9 <u>19</u> OAR 345-025-0016: The following general monitoring conditions apply:
- (1) In the site certificate, the Council shall include conditions that address monitoring and
 mitigation to ensure compliance with the standards contained in OAR Chapter 345, Division 22
 and Division 24. The site certificate applicant, or for an amendment, the certificate holder, shall
 develop proposed monitoring and mitigation plans in consultation with the Department and, as
 appropriate, other state agencies, local governments and tribes. Monitoring and mitigation
 plans are subject to Council approval. The Council shall incorporate approved monitoring and
 mitigation plans in applicable site certificate conditions. -[AMD4[AMD5]
- 17 20 OAR 345-026-0048: Following receipt of the site certificate or an amended site certificate, the 18 certificate holder shall implement a plan that verifies compliance with all site certificate terms 19 and conditions and applicable statutes and rules. As a part of the compliance plan, to verify 20 compliance with the requirement to begin construction by the date specified in the site 21 certificate, the certificate holder shall report promptly to the Department of Energy when 22 construction begins. Construction is defined in OAR 345-001-0010. In reporting the beginning of 23 construction, the certificate holder shall describe all work on the site performed before 24 beginning construction, including work performed before the Council issued the site certificate, 25 and shall state the cost of that work. For the purpose of this exhibit, "work on the site" means 26 any work within a site or corridor, other than surveying, exploration or other activities to define 27 or characterize the site or corridor. The certificate holder shall document the compliance plan 28 and maintain it for inspection by the Department or the Council.
- 29 <u>21</u> <u>OAR 345-026-008</u>0: The certificate holder shall report according to the following requirements:
- 30 (a) General reporting obligation for energy facilities under construction or operating:
- 31 (i) Within six months after beginning construction, and every six months thereafter 32 during construction of the energy facility and related or supporting facilities, the 33 certificate holder shall submit a semiannual construction progress report to the 34 Department of Energy. In each construction progress report, the certificate holder 35 shall describe any significant changes to major milestones for construction. The 36 certificate holder shall report on the progress of construction and shall address the 37 subjects listed in subsections (2)(a), (d), (f) and (g). When the reporting date 38 coincides, the certificate holder may include the construction progress report within 39 the annual report described in this rule.
- 40 41
- (ii) After January 1 but no later than April 30 of each year after beginning operation of the facility, the certificate holder shall submit an annual report to the Department

1	addressing the subjects listed in Subsection (2). For the purposes of this rule, the
2	beginning of operation of the facility means the date when construction of a
3	significant portion of the facility is substantially complete and the certificate holder
4	begins commercial operation of the facility as reported by the certificate holder and
5	accepted by the Department. The Council Secretary and the certificate holder may,
6	by mutual agreement, change the reporting date.
7	(iii) To the extent that information required by this rule is contained in reports the
8	certificate holder submits to other state, federal or local agencies, the certificate
9	holder may submit excerpts from such other reports to satisfy this rule. The Council
10	reserves the right to request full copies of such excerpted reports
11 12	(b) In the annual report, the certificate holder shall include the following information for the calendar year preceding the date of the report:
13	(i) Facility Status: An overview of site conditions, the status of facilities under
14	construction and a summary of the operating experience of facilities that are in
15	operation. The certificate holder shall describe any unusual events, such as
16	earthquakes, extraordinary windstorms, major accidents or the like that occurred
17	during the year and that had a significant adverse impact on the facility.
18	(ii) Reliability and Efficiency of Power Production: For electric power plants, the plant
19	availability and capacity factors for the reporting year. The certificate holder shall
20	describe any equipment failures or plant breakdowns that had a significant impact on
21	those factors and shall describe any actions taken to prevent the recurrence of such
22	problems.
23	(iii) Status of Surety Information: Documentation demonstrating that bonds or letters of
24	credit as described in the site certificate are in full force and effect and will remain in
25	full force and effect for the term of the next reporting period.
26	(iv) Monitoring Report: A list and description of all significant monitoring and mitigation
27	activities performed during the previous year in accordance with site certificate terms
28	and conditions, a summary of the results of those activities and a discussion of any
29	significant changes to any monitoring or mitigation program, including the reason for
30	any such changes.
31	(v) Compliance Report: A description of all instances of noncompliance with a site
32	certificate condition. For ease of review, the certificate holder shall, in this section of
33	the report, use numbered subparagraphs corresponding to the applicable sections of
34	the site certificate.
35 36 37	(vi) Facility Modification Report: A summary of changes to the facility that the certificate holder has determined do not require a site certificate amendment in accordance with OAR 345-027-0050.
38	(vii)

- 122OAR 345-026-0105: The certificate holder and the Department of Energy shall exchange copies2of all correspondence or summaries of correspondence related to compliance with statutes,3rules and local ordinances on which the Council determined compliance, except for material4withheld from public disclosure under state or federal law or under Council rules. The certificate5holder may submit abstracts of reports in place of full reports; however, the certificate holder6shall provide full copies of abstracted reports and any summarized correspondence at the7request of the Department.
- 8 23 OAR 345-026-0170: The certificate holder shall notify the Department of Energy within 72 hours
 9 of any occurrence involving the facility if:
- 10 (a) There is an attempt by anyone to interfere with its safe operation;
- 11(b)A natural event such as an earthquake, flood, tsunami or tornado, or a human-caused12event such as a fire or explosion affects or threatens to affect the public health and13safety or the environment; or
- 14 (c) There is any fatal injury at the facility.

V. SPECIFIC FACILITY CONDITIONS

- 15 The conditions listed in this section include conditions based on representations in the site certificate
- 16 application and supporting record. The Council deems these representations to be binding
- 17 commitments made by the applicant. These conditions are required under OAR 345-025-0006.
- 18 The certificate holder must comply with these conditions in addition to the conditions listed in
- 19 Section IV. This section includes other specific facility conditions the Council finds necessary to ensure
- 20 compliance with the siting standards of OAR Chapter 345, Divisions 22 and 24, and to protect public
- health and safety. For conditions that require subsequent review and approval of a future action, ORS
 469.402 authorizes the Council to delegate the future review and approval to the Department if, in the
- 22 Gouncil's discretion, the delegation is warranted under the circumstances of the case.
- 24 **1.** Certificate Administration Conditions
- 25 <u>24</u> The certificate holder shall÷
- i. Begin construction of Phase 1 of the facility by September 14, 2017. Under OAR 345-015 0085(9), a site certificate is effective upon execution by the Council Chair and the applicant.
 The Council may grant an extension of the deadline to begin construction in accordance with
 OAR 345-027-0385 or any successor rule in effect at the time the request for extension is
 submitted. [ASC; AMD2; AMD4]
- Begin construction of Phase 2 begin construction of the facility by August 30, 2022. The Council may
 grant an extension of the deadline to begin construction in accordance with OAR 345-027-0385
 or any successor rule in effect at the time the request for extension is submitted. [AMD4AMD5]
- 35 <u>25</u> The certificate holder shall÷
- 36 Complete complete construction of Phase 1 of the facility by September 14, 2020.[3 years of from the
 37 date of construction commencement]. Construction is complete when: (1) the facility is

1 2 3 4 5 6 7		substantially complete as defined by the certificate holder's construction contract documents, (2) acceptance testing has been satisfactorily completed and (3) the energy facility is ready to begin continuous operation consistent with the site certificate. The certificate holder shall promptly notify the Department of the date of completion of construction. The Council may grant an extension of the deadline for completing construction in accordance with OAR 345-027-0385 or any successor rule in effect at the time the request for extension is submitted. [ASC; AMD2; AMD4[AMD5]		
8 9 10 11 12 13 14 15	<u>i.</u>	Complete construction of Phase 2 of the facility by [3 years of from the date of construction commencement]. Construction is complete when: (1) the facility is substantially complete as defined by the certificate holder's construction contract documents, (2) acceptance testing has been satisfactorily completed and (3) the energy facility is ready to begin continuous operation consistent with the site certificate. The certificate holder shall promptly notify the Department of the date of completion of construction. The Council may grant an extension of the deadline for completing construction in accordance with OAR 345-027-0385 or any successor rule in effect at the time the request for extension is submitted. [AMD4]		
16 17 18 19	<u>26</u>	Before beginning construction of the facility, the certificate holder shall notify the Department whether the turbines identified as H1, H2, H3, H4, L8, L9, L10, L11 and L12 on Figure C-3a of the site certificate application will be built as part of the Montague Wind Power Facility or whether the turbines will be built as part of the Leaning Juniper II Wind Power Facility.		
20 21 22 23 24 25	<u>27</u>	The certificate holder shall construct a facility substantially as described in the site certificate and may select turbines of any type, subject to the following restrictions and compliance with all other site certificate conditions. Before beginning construction, the certificate holder shall provide to the Department a description of the turbine types selected for the facility demonstrating compliance with this condition. solar array components substantially as described in RFA4 and RFA5.		
26 27 28 29 30 31	i	 For Phase 1 facility components: (a) The total number of turbines must not exceed 81 turbines. (b) The turbine hub height must not exceed 100 meters and the maximum blade tip height must not exceed 150 meters. (c) The minimum blade tip clearance must be 14 meters above ground. [Amendment #3] 		
32 33 34 35 36 37	ii. -	 For Phase 2 facility components: (a) Components may include any combination of wind and solar energy generation equipment, up to 81 wind turbines or the maximum layout (including number and size) of solar array components substantially as described in RFA4. (b) The maximum blade tip height must not exceed 597 feet (182 meters). The minimum aboveground blade tip clearance must be 46 feet (14 meters). 		
38	[Final Order on ASC; AMD3; AMD4AMD4AMD5]			
39 40 41 42	<u>28</u>	The certificate holder shall obtain all necessary federal, state and local permits or approvals required for construction, operation and retirement of the facility or ensure that its contractors obtain the necessary federal, state and local permits or approvals.		
1 <u>29</u> The certificate holder shall:

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- i. Before beginning construction-of each phase of the facility, provide to the Department a
 list of all third-party permits which would normally be governed by the site certificate
 and that are necessary for construction (e.g. Air Contaminant Discharge Permit; Limited
 Water Use License). Once obtained, the certificate holder shall provide copies of third-party permits to the Department and Gilliam County-and shall provide to the
 Department proof of agreements between the certificate holder and the third-party
 regarding access to the resources or services secured by the permits or approvals.
 - During construction and operation, promptly report to the Department if any third-party permits referenced in sub(i) of this condition have been subject to a cited violation, Notice of Violation, or allegation of a violation. [AMD4AMD5]
- 1330Before beginning construction, the certificate holder shall notify the Department in advance of14any work on the site that does not meet the definition of "construction" in ORS 469.300,15excluding surveying, exploration or other activities to define or characterize the site, and shall16provide to the Department a description of the work and evidence that its value is less than17\$250,000.
- 18 31 Before beginning construction but no more than two years before beginning construction and 19 after considering all micrositing factors, the certificate holder shall provide to the Department, 20 to the Oregon Department of Fish and Wildlife (ODFW) and to the Planning Director of Gilliam 21 County detailed maps of the facility site, showing the final locations where the certificate holder 22 proposes to build facility components, and a table showing the acres of temporary and 23 permanent habitat impact by habitat category and subtype, similar to Table 6 in the Final Order 24 on the Application. The detailed maps of the facility site shall indicate the habitat categories of 25 all areas that would be affected during construction (similar to Figures Figure P-8a through P-8d9 26 in the site certificate application RFA4). In classifying the affected habitat into habitat categories, 27 the certificate holder shall consult with the ODFW. The certificate holder shall not begin ground 28 disturbance in an affected area until the habitat assessment has been approved by the 29 Department. The Department may employ a qualified contractor to confirm the habitat 30 assessment by on-site inspection.
 - i. <u>32</u>

 i. Before beginning construction of Phase 1 of the facility, the certificate holder shall submit to the State of Oregon through the Council a bond or letter of credit in the amount described herein naming the State of Oregon, acting by and through the Council, as beneficiary or payee. The initial bond or letter of credit will be issued in an amount that is either \$21.5118.1 million (3rd1st Quarter 20102019 dollars), to be adjusted to the date of issuance as described in (b), or the amount determined as described in (a). The certificate holder shall adjust the amount of the bond or letter of credit on an annual basis thereafter as described in (b).
 - The certificate holder may adjust the amount of the bond or letter of credit based on the final design configuration of the facility and turbine types selected by applying the unit costs and general costs illustrated in Table <u>5</u>2 in the *Final Order on* the Application<u>Amendment 4</u> and calculating the financial assurance amount as described in that order, adjusted to the date of issuance as described in (b) and subject to approval by the Department.

1	i. Adjust the Subtotal component of the bond or letter of credit amount
2	(expressed in 3 rd Quarter 2017 dollars) to present value, using the U.S. Gross
3	Domestic Product Implicit Price Deflator, Chain Weight, as published in the
4	Oregon Department of Administrative Services' "Oregon Economic and
5	Revenue Forecast" or by any successor agency (the "Index") and using the
6	3 rd Quarter 2017 index values (to represent mid-2004 dollars) and the
7	quarterly index value for the date of issuance of the new bond or letter of
8	credit. If at any time the Index is no longer published, the Council shall
9	select a comparable calculation to adjust mid-2004 dollars to present value.
10	ii.—Add 1 percent of the adjusted Subtotal (i) for the adjusted performance
11	bond amount to determine the adjusted Gross Cost.
12	iii. Add 10 percent of the adjusted Gross Cost (ii) for the adjusted
13	administration and project management costs and 10 percent of the
14	adjusted Gross Cost (ii) for the adjusted future developments contingency.
15	iv. Add the adjusted Gross Cost (ii) to the sum of the percentages (iii) and
16	round the resulting total to the nearest \$1,000 to determine the adjusted
17	financial assurance amount.
18	 b. The certificate holder shall adjust the amount of the bond or letter of credit, using
19	the following calculation and subject to approval by the Department:
20	c.—The certificate holder shall use a form of bond or letter of credit approved by the
21	Council.
22 23	d.—The certificate holder shall use an issuer of the bond or letter of credit approved by the Council.
24	e. The certificate holder shall describe the status of the bond or letter of credit in the
25	annual report submitted to the Council under Condition 21.
26 27	f.— The bond or letter of credit shall not be subject to revocation or reduction before retirement of the facility site.
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42	 ii. Before beginning construction of Phase 2 of the facility, the certificate holder shall submit to the State of Oregon through the Council a bond or letter of credit in the amount described herein naming the State of Oregon, acting by and through the Council, as beneficiary or payee. The bond or letter of credit will be issued for Phase 2 in an amount that is either \$10.429 million (1** Quarter 2019 dollars), to be adjusted to the date of issuance as described in (b), or the amount determined as described in (a). The certificate holder shall adjust the amount of the bond or letter of credit on an annual basis thereafter as described in (b). a. The certificate holder may adjust the amount of the bond or letter of credit based on the final design configuration of the facility, and both the battery storage or turbine types selected by applying the unit costs and general costs illustrated in Table 5 of the <i>Final Order on Amendment 4</i> and calculating the financial assurance amount as described in that order, adjusted to the date of issuance as described in (b) and subject to approval by the Department. The certificate holder may adjust the amount of the facility.
43	b. The certificate holder shall adjust the amount of the bond or letter of credit, using
44	the following calculation and subject to approval by the Department:

$\frac{1}{2}$		i. Adjust the Subtotal component of the bond or letter of credit amount (expressed in mid-2004-2019 dollars) to present value, using the U.S. Gross
3		Domestic Product Implicit Price Deflator, Chain-Weight, as published in the
4		Oregon Department of Administrative Services' "Oregon Economic and
5		Revenue Forecast" or by any successor agency (the "Index") and using the
6		average of the 1 st and 2 nd Quarter and 3 rd Quarter 2004-2019 index values
7		(to represent mid-2019 2004 dollars) -and the guarterly index value for the
8		date of issuance of the new bond or letter of credit. If at any time the Index
9		is no longer published, the Council shall select a comparable calculation to
10		adjust mid- <u>2004-2019</u> dollars to present value.
11		c. The certificate holder shall adjust the amount of the bond or letter of credit, using
12		the following calculation and subject to approval by the Department:
13		i. Adjust the Subtotal component of the bond or letter of credit amount
14		(expressed in mid- <u>2019</u> 2004 dollars) to present value, using the U.S. Gross
15		Domestic Product Implicit Price Deflator, Chain-Weight, as published in the
16		Oregon Department of Administrative Services' "Oregon Economic and
17		Revenue Forecast" or by any successor agency (the "Index") and using the
18		average of the <u>1st and</u> 2 nd Quarter and 3rd Quarter 2004index201904 index
19		values (to represent mid-20 <u>19</u> 04 dollars) and the quarterly index value for
20		the date of issuance of the new bond or letter of credit. If at any time the
21		Index is no longer published, the Council shall select a comparable
22		calculation to adjust mid-20 <u>19</u> 04 dollars to present value.
23		ii. Add 1 percent of the adjusted Subtotal (i) for the adjusted performance
24		bond amount to determine the adjusted Gross Cost.
25		iii. Add 10 percent of the adjusted Gross Cost (ii) for the adjusted
26		administration and project management costs, add 20 percent of the
27		adjusted Gross Cost of the Solar Generation and Battery Storage System (ii)
28		and 10 percent of the adjusted Gross Cost of all other facility components(ii)
29		for the adjusted future developments contingency.
30		iv. Add the adjusted Gross Cost (ii) to the sum of the percentages (iii) and
31		round the resulting total to the nearest \$1,000 to determine the adjusted
32		financial assurance amount.
33 24		d. The certificate holder shall use a form of bond or letter of credit approved by the
34 25		Council.
35 36		e. The certificate holder shall use an issuer of the bond of letter of credit approved by
30		f The cortificate holder shall describe the status of the head or letter of credit in the
38		1. The certificate holder shall describe the status of the bolid of letter of credit in the
30		The bond or letter of credit shall not be subject to revocation or reduction before
<i>4</i> 0		g. The bond of letter of credit shall not be subject to revocation of reduction before
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$\frac{1}{42}$		
43	33	If the certificate holder elects to use a bond to meet the requirements of Condition 32, the
44	<u></u>	certificate holder shall ensure that the surety is obligated to comply with the requirements of
45		applicable statutes, Council rules and this site certificate when the surety exercises any legal or
46		contractual right it may have to assume construction, operation or retirement of the energy
47		facility. The certificate holder shall also ensure that the surety is obligated to notify the Council
48		that it is exercising such rights and to obtain any Council approvals required by applicable

- statutes, Council rules and this site certificate before the surety commences any activity to
 complete construction, operate or retire the energy facility.
- 334Before beginning construction, the certificate holder shall notify the Department of the identity4and qualifications of the major design, engineering and construction contractor(s) for the5facility. The certificate holder shall select contractors that have substantial experience in the6design, engineering and construction of similar facilities. The certificate holder shall report to7the Department any change of major contractors.
- 835The certificate holder shall contractually require all construction contractors and subcontractors9involved in the construction of the facility to comply with all applicable laws and regulations and10with the terms and conditions of the site certificate. Such contractual provisions shall not11operate to relieve the certificate holder of responsibility under the site certificate.
- 1236To ensure compliance with all site certificate conditions during construction, the certificate13holder shall have a full-time, on-site assistant construction manager who is qualified in14environmental compliance. The certificate holder shall notify the Department of the name,15telephone number and e-mail address of this person.
- 1637Within 72 hours after discovery of conditions or circumstances that may violate the terms or17conditions of the site certificate, the certificate holder shall report the conditions or18circumstances to the Department.
- 19 **2.** Land Use Conditions

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- 20 <u>38</u> The certificate holder shall:
 - i. <u>Consult consult</u> with area landowners and lessees during construction and operation of Phase <u>1 of the facility and implement measures to reduce and avoid any adverse impacts to farm</u> practices on surrounding lands and to avoid any increase in farming costs.
- Consult with area landowners and lessees during construction and operation of Phase 2 of the facility
 and implement measures to reduce and avoid any adverse impacts to ongoing farm practices on
 surrounding lands, including coordination with the landowner of the solar micrositing area to
 ensure that the final solar array layout does not prevent the landowner from maximizing
 agricultural production on the land not occupied by the solar array. [Final Order on ASC; AMD5]
- 30 [Final Order on ASC; AMD4]
- 31 <u>39</u> The certificate holder shall design and construct:
- Phase 1 of the facility using the minimum land area necessary for safe construction and
 operation. The certificate holder shall locate access roads and temporary construction
 laydown and staging areas to minimize disturbance of farming practices and, wherever
 feasible, shall place turbines and transmission interconnection lines along the margins of
 cultivated areas to reduce the potential for conflict with farm operations. [Final Order on
 ASC; AMD4]
- 39 Phase 2 of the facility to minimize the permanent impacts to agricultural land, including to the extent
 40 practicable, using existing access roads, co-locating facilities, reducing road and transmission

$\begin{vmatrix} 1\\ 2\\ 3 \end{vmatrix}$		line/collector line lengths, and designing facility components to allow ongoing access to agricultural fields. [Final Order on ASC; AMD5]
5 4 5 6	<u>40</u>	The certificate holder shall install gates on private access roads in accordance with Gilliam County Zoning Ordinance Section 7.020(T)(4)(d)(6) unless the County has granted a variance to this requirement.
7 8 9	<u>41</u>	Before beginning construction of the facility, the certificate holder shall record in the real property records of Gilliam County a Covenant Not to Sue with regard to generally accepted farming practices on adjacent farmland consistent with GCZO Section 37 7.020(T)(4)(a)(5).
10 11	<u>42</u>	The certificate holder shall construct all facility components in compliance with the following setback requirements:
12 13 14 15 16 17		 (a) All facility components must be at least 3,520 feet from the property line of properties zoned residential use or designated in the Gilliam County Comprehensive Plan as residential. (b) Where (a) does not apply, the certificate holder shall maintain a minimum distance of 110-percent of maximum blade tip height, measured from the centerline of the turbine tower to the nearest edge of any public road right-of-way. The certificate holder shall assume a minimum right-of-way width of 60 feet.
18 19 20		(c) Where (a) does not apply, the certificate holder shall maintain a minimum distance of 1,320 feet, measured from the centerline of the turbine tower to the center of the nearest residence existing at the time of tower construction.
21 22 23		(d)—Where (a) does not apply, the certificate holder shall maintain a minimum distance of 110- percent of maximum blade tip height, measured from the centerline of the turbine tower to the nearest boundary of the certificate holder's lease area.
24 25 26		(e) The certificate holder shall maintain a minimum distance of 250 feet measured from the center line of each turbine tower to the nearest edge of any railroad right-of-way or electrical substation.
27 28 29 30		(f) The certificate holder shall maintain a minimum distance of 250 feet measured from the center line of each meteorological tower to the nearest edge of any public road right-of-way or railroad right-of-way, the nearest boundary of the certificate holder's lease area or the nearest electrical substation.
31 32 33		(g)(b) The certificate holder shall maintain a minimum distance of 50 feet measured from any facilitythe Montague Solar O&M building to the nearest edge of any public road right-of-way or railroad right-of-way or the nearest boundary of the certificate holder's lease area.
34 35 36 37		(h)(c) The certificate holder shall maintain a minimum distance of 50 feet measured from any substation to the nearest edge of any public road right-of-way or railroad right-of-way or the nearest boundary of the certificate holder's electrical substation easement or, if there is no easement, the nearest boundary of the certificate holder's lease area.
38 39 40		(i) Where (a) does not apply, the certificate holder shall maintain a minimum of 110 percent of maximum blade tip height, measured from the centerline of the turbine tower from any overhead utility line. [Amendment #1]
41 42 43		(j) Where (a) does not apply, the certificate holder shall maintain a minimum of 150 percent of maximum turbine height from blade tip height, measured from the centerline of the turbine tower from federal transmission lines, unless the affected parties agree otherwise.
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1 2 3 4 5 6 7 8		 (k)(d) The certificate holder shall maintain a minimum distance of 25 feet measured from the fence line of the solar array to the nearest property line. (H)(e) The certificate holder shall maintain a minimum distance of 25 feet measured from the front, rear and side yard of the battery storage system site to the nearest property line. (m)(f) For Phase 2 facility components, all wind turbines must be setback a minimum distance of 656 feet (200 meters), measured from the centerline of the turbine tower to the nearest edge of the breaks of Rock Creek Canyon. [AMD4][AMD4AMD5]
9 10 11	<u>43</u>	During construction and operation of the facility, the certificate holder shall implement a weed control plan approved by the Gilliam County Weed Control Officer or other appropriate County officials to control the introduction and spread of noxious weeds.
12 13 14	<u>44</u>	During operation of the facility, the certificate holder shall restore areas that are temporarily disturbed during facility maintenance or repair activities using the same methods and monitoring procedures described in the Revegetation Plan referenced in Condition 92.
15 16 17 18 19	<u>45</u>	Within 90 days after beginning operation of the facility-or a phase of the facility, the certificate holder shall provide to the Department and to the Gilliam County Planning Department the actual latitude and longitude location or Stateplane NAD 83(91) coordinates of each turbine tower, connecting lines and transmission lines <u>the facility</u> and a summary of as-built changes in the facility compared to the original plan.
20 21 22	<u>46</u>	The certificate holder shall deliver a copy of the annual report required under Condition 21 to the Gilliam County Planning Commission on an annual basis unless specifically discontinued by the County.
23	3. Ci	ultural Resource Conditions
24 25 26 27 28 29 30 31	<u>47</u>	 Before beginning construction, the certificate holder shall: (a) Label all identified historic, cultural or archeological resource sites on construction maps and drawings as "no entry" areas. If construction activities will occur within 200 feet of an identified site, the certificate holder shall flag a 30-meter no entry buffer around the site. The certificate holder may use existing private roads within the buffer areas but may not widen or improve private roads within the buffer areas. The no-entry restriction does not apply to public road rights-of-way within the buffer areas or to operational farmsteads. [Final Order on ASC]
32 33 34 35 36 37 38 39 40		 (b) Submit for review and approval by the Department in consultation with the State Historic Preservation Office, a final Phase 2-Historical Resource Mitigation Plan (HRMP), based on the draft HRMP provided in Attachment H of the Final Order on Request for Amendment 4<u>5</u>. The final HRMP shall include the following: Confirmation on established setback of Phase 2 facility components to the Weatherford Barn, if confirmed by the Department and SHPO to represent a distance whereby indirect impacts to setting and feeling would be minimized to less than significant. In the alternative, the certificate holder shall specify the mitigation option colored from the HPMP and the implementation schedule to reduce
40 41		significant adverse indirect impacts to the Weatherford Barn.

$ \begin{array}{c} 1\\2\\3\\4\\5\\6\\7\\8\\9\\10\\11\\12\\13\\14\\15\\16\\17\end{array} $			 ii. Concurrence from SHPO that the Olex Townsite, Olex School, and the Olex Cemetery ("Olex resources") are not likely eligible for listing as individual properties or together as a historic district on the National Register of Historic Places (NRHP); or if SHPO concurs that the Olex resources either individually or as a historic district are likely eligible for listing, the certificate holder shall include in its final HRMP appropriate descriptions of the resources and mitigation, which could include an appropriate setback of Phase 2 facility components to the Olex resources as confirmed by the Department in consultation with SHPO to represent a distance whereby indirect impacts to setting and feeling would be minimized to less than significant. In the alternative, the certificate holder shall specify the mitigation option selected and the implementation schedule to reduce significant adverse indirect impacts to the Olex resources such as: historic photo documentation and scale drawings of Olex; additional archival and literature review; video media publications; public interpretation funding; or other form of compensatory mitigation deemed appropriate by the Department, in consultation with SHPO. [AMD4] [AMD5]
18 19 20	<u>48</u>	In refe Applic	erence to the alignment of the Oregon Trail described in the Final Order on the ration, the certificate holder shall comply with the following requirements:
21 22		(d)	The certificate holder shall not locate facility components on visible remnants of the Oregon Trail and shall avoid any construction disturbance to those remnants.
23 24		(e)	The certificate holder shall not locate facility components on undeveloped land where the trail alignment is marked by existing Oregon-California Trail Association markers.
25 26 27		(f)	Before beginning construction, the certificate holder shall provide to the State Historic Preservation Office (SHPO) and the Department documentation of the presumed Oregon Trail alignments within the site boundary.
28 29 30 31 32 33 34 35		(g)	The certificate holder shall ensure that construction personnel proceed carefully in the vicinity of the presumed alignments of the Oregon Trail. If any physical evidence of the trail is discovered, the certificate holder shall avoid any disturbance to the intact segments by redesign, re-engineering or restricting the area of construction activity and shall flag a 30-meter no-entry buffer around the intact Trail segmentsThe certificate holder shall promptly notify the SHPO and the Department of the discovery. The certificate holder shall consult with the SHPO and the Department to determine appropriate mitigation measures.
36 37 38 39 40 41 42 43	<u>49</u>	Before showi tempo descri persor outsid the fie (SHPO	e beginning construction, the certificate holder shall provide to the Department a map ng the final design locations of all components of the facility, the areas that would be prarily disturbed during construction and the areas that were surveyed in 2009 as bed in the Final Order on the Application. The certificate holder shall hire qualified nnel to conduct field investigations of all areas to be disturbed during construction that lie le the previously-surveyed areas. The certificate holder shall provide a written report of eld investigations to the Department and to the Oregon State Historic Preservation Office b) for review and approval. If any potentially significant historic, cultural or archaeological

- resources are found during the field investigation, the certificate holder shall instruct all
 construction personnel to avoid the identified sites and shall implement appropriate measures
 to protect the sites, including the measures described in Condition 47.
- 4 <u>50</u> During construction, the certificate holder shall:

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- (a) Ensure that a qualified archeologist, as defined in OAR 736-051-0070, instructs construction personnel in the identification of cultural materials and avoidance of accidental damage to identified resource site.
- 8 (b) Employ a qualified cultural resource monitor to conduct monitoring of ground disturbance 9 at depths of 12 inches or greater. The qualifications of the selected cultural resources 10 monitor shall be reviewed and approved by the Department, in consultation with the CTUIR 11 Cultural Resources Protection Program. In the selection of the cultural resources monitor to 12 be employed during construction, preference shall be given to citizens of the CTUIR. Ground 13 disturbance at depths 12 inches or greater shall not occur without the presence of the 14 approved cultural resources monitor. If any cultural resources are identified during 15 monitoring activities, the steps outlined in the Inadvertent Discovery Plan, as provided in 16 Attachment H of the Final Order on Amendment 4 should be followed. The certificate holder 17 shall report to the Department in its semi-annual report a description of the ground 18 disturbing activities that occurred during the reporting period, dates cultural monitoring 19 occurred, and shall include copies of monitoring forms completed by the cultural resource 20 monitor. [AMD4AMD5]
- 21 The certificate holder shall ensure that construction personnel cease all ground-disturbing 51 22 activities in the immediate area if any archaeological or cultural resources are found during 23 construction of the facility until a qualified archaeologist can evaluate the significance of the 24 find. The certificate holder shall notify the Department and the Oregon State Historic 25 Preservation Office (SHPO) of the find. If the SHPO determines that the resource is significant, 26 the certificate holder shall make recommendations to the Council for mitigation, including 27 avoidance, field documentation and data recovery, in consultation with the Department, SHPO, 28 interested Tribes and other appropriate parties. -The certificate holder shall not restart work in 29 the affected area until the certificate holder has demonstrated to the Department and the SHPO 30 that it has complied with archaeological resource protection regulations
- **4.** Geotechnical Conditions
- 3252Before beginning construction-of each phase of the facility, the certificate holder shall conduct a33site-specific geotechnical investigation and shall report its findings to the Oregon Department of34Geology & Mineral Industries (DOGAMI) and the Department. The certificate holder shall conduct35the geotechnical investigation after consultation with DOGAMI to confirm appropriate site-specific36methodologies for evaluating seismic and non-seismic hazards to inform equipment foundation37and road design. [Final Order; AMD4AMD5]
- 3853The certificate holder shall design and construct the facility in accordance with requirements of39the current Oregon Structural Specialty Code and International Building Code. [AMD4AMD5]
- 4054The certificate holder shall design, engineer and construct the facility to avoid dangers to human
safety presented by non-seismic hazards. As used in this condition, "non-seismic hazards"4142include settlement, landslides, flooding and erosion.

1 5. Hazardous Materials, Fire Protection & Public Safety Conditions

- 255The certificate holder shall handle hazardous materials used on the site in a manner that3protects public health, safety and the environment and shall comply with all applicable local,4state and federal environmental laws and regulations. The certificate holder shall not store5diesel fuel or gasoline on the facility site during operations. [AMD4AMD5]
- 656If a spill or release of hazardous material occurs during construction or operation of the facility,
the certificate holder shall notify the Department within 72 hours and shall clean up the spill or
release and dispose of any contaminated soil or other materials according to applicable
regulations. The certificate holder shall make sure that spill kits containing items such as
absorbent pads are located on equipment and at the Montague Solar O&M buildings
building.11The certificate holder shall instruct employees about proper handling, storage and cleanup of
hazardous materials
- 13 <u>57</u> The certificate holder shall construct turbines and pad-mounted transformers on concrete
 14 foundations and shall cover the ground within a 10-foot radius with non-flammable material.
 15 The certificate holder shall maintain the non-flammable pad area covering during operation of
 16 the facility.
- 17 <u>58</u> The certificate holder shall install and maintain self monitoring devices on each turbine, linked
 18 to sensors at the operations and maintenance building, to alert operators to potentially
 19 dangerous conditions, and the certificate holder shall immediately remedy any dangerous
 20 conditions. The certificate holder shall maintain automatic equipment protection features in
 21 each turbine that would shut down the turbine and reduce the chance of a mechanical problem
 22 causing a fire.
- 235957During construction and operation of the facility, the certificate holder shall ensure that the24Montague Solar O&M buildingsbuilding and all service vehicles are equipped with shovels and25portable fire extinguishers of a 4A5OBC or equivalent rating.
- 26 60 During construction and operation of the facility, the certificate holder shall develop and 27 implement fire safety plans in consultation with the North Gilliam County Rural Fire Protection 28 District to minimize the risk of fire and to respond appropriately to any fires that occur on the 29 facility site. In developing the fire safety plans, the certificate holder shall take into account the 30 dry nature of the region and shall address risks on a seasonal basis. For solar facility 31 components, the certificate holder shall address worker training requirements, inspections, 32 vegetation management, fire prevention and response equipment and agreements with fire 33 districts for mutual assistance in fire response. The certificate holder shall meet annually with 34 local fire protection agency personnel to discuss emergency planning and shall invite local fire 35 protection agency personnel to observe any emergency drill or tower rescue training conducted 36 at the facility. [AMD5]
- 3761Upon the beginning of operation of the facility, the certificate holder shall provide a site plan to38the North Gilliam County Rural Fire Protection District. The certificate holder shall indicate on39the site plan-the identification number assigned to each turbine and40facility structures. The certificate holder shall provide an updated site plan if additional turbines41or other structures are later added to the facility. During operation, the certificate holder shall42ensure that appropriate fire protection agency personnel have an up-to-date list of the names

- and telephone numbers of facility personnel available to respond on a 24-hour basis in case of
 an emergency on the facility site.
- <u>62</u> During construction, the certificate holder shall ensure that construction personnel are trained
 in fire prevention and response, that construction vehicles and equipment are operated on
 graveled areas to the extent possible and that open flames, such as cutting torches, are kept
 away from dry grass areas.
- 763During operation of the facility, the certificate holder shall ensure that all on-site employees8receive annual fire prevention and response training by qualified instructors or members of the9local fire districts. The certificate holder shall ensure that all employees are instructed to keep10vehicles on roads and off dry grassland, except when off-road operation is required for11emergency purposes.
- 12 <u>64</u> Before beginning construction of:
- i. Phase 1, the certificate holder shall submit a Notice of Proposed Construction or Alteration
 to the Federal Aviation Administration (FAA) and the Oregon Department of Aviation
 identifying the proposed final locations of turbine towers and meteorological towers. The
 certificate holder shall promptly notify the Department of the responses from the FAA and
 the Oregon Department of Aviation.
- 18 ii. Phase 2, the certificate holder shall submit a Notice of Proposed Construction or Alteration 19 to the Federal Aviation Administration (FAA) and the Oregon Department of Aviation 20 identifying the proposed final locations of turbine towers and meteorological towers to 21 determine if the structure(s) are a hazard to air navigation and aviation safety. The 22 certificate holder shall promptly notify the Department of the responses from the FAA and 23 the Oregon Department of Aviation. The FAA and ODA evaluation and determinations are 24 valid for 18 months (per OAR 738-070-0180), once issued. The certificate holder shall 25 maintain current hazard determinations on file commensurate with construction timelines. 26 [AMD4]
- 27 <u>65</u> The certificate holder shall follow manufacturers' recommended handling instructions and
 28 procedures to prevent damage to turbine or turbine tower components that could lead to
 29 failure.
- 3066The certificate holder shall construct turbine towers with no exterior ladders or access to the
turbine blades and shall install locked tower access doors. The certificate holder shall keep
tower access doors locked at all times, except when authorized personnel are present.
- 33 <u>67</u> During operation of the facility, the certificate holder shall have a safety-monitoring program
 34 and shall inspect all turbine and turbine tower components on a regular basis. The certificate
 35 holder shall maintain or repair turbine and turbine tower components as necessary to protect
 36 public safety.
- For turbine types having pad-mounted step-up transformers, the certificate holder shall install
 the transformers at the base of each tower in locked cabinets designed to protect the public
 from electrical hazards and to avoid creation of artificial habitat for raptor prey.

- 1<u>69</u>To protect the public from electrical hazards, the certificate holder shall enclose the facility2substations, solar array, and battery storage systems with appropriate fencing and locked gates.3[AMD4AMD5]
- 4 70 Before beginning construction of any new State Highway approaches or utility crossings, the 5 certificate holder shall obtain all required permits from the Oregon Department of 6 Transportation (ODOT) subject to the applicable conditions required by OAR Chapter 734, 7 Divisions 51 and 55. The certificate holder shall submit the necessary application in a form 8 satisfactory to ODOT and the Department for the location, construction and maintenance of a 9 new approach to State Highway 19 for access to the site south of Tree Lane. The certificate 10 holder shall submit the necessary application in a form satisfactory to ODOT and the 11 Department for the location, construction and maintenance of transmission lines crossing 12 Highway 19.
- 13 The certificate holder shall design and construct new access roads and private road 71 14 improvements to standards approved by the Gilliam County Road Department-or, where 15 applicable, the Morrow County Public Works Department., Where modifications of County roads 16 are necessary, the certificate holder shall construct the modifications entirely within the County 17 road rights-of-way and in conformance with County road design standards subject to the 18 approval of the Gilliam County Road Department-or, where applicable, the Morrow County 19 Public Works Department. Where modifications of State roads or highways are necessary, the 20 certificate holder shall construct the modifications entirely within the public road rights-of-way 21 and in conformance with Oregon Department of Transportation (ODOT) standards subject to the 22 approval of ODOT.
- The certificate holder shall construct access roads with a finished width of up to 20 feet,
 designed under the direction of a licensed engineer and compacted to meet equipment load
 requirements.
- 2673During construction of the facility, the certificate holder shall implement measures to reduce27traffic impacts, including:
- 28 (h) Providing notice to adjacent landowners when heavy construction traffic is anticipated.
- 29 (i) Providing appropriate traffic safety signage and warnings.
- 30(j)Requiring flaggers to be at appropriate locations at appropriate times during
construction to direct traffic.
- 32(k)Using traffic diversion equipment (such as advance signage and pilot cars) when slow or33oversize construction loads are anticipated.
- 34 (I) Maintaining at least one travel lane at all times to the extent reasonably possible so that
 35 roads will not be closed to traffic because of construction vehicles.
- 36 (m) Encouraging carpooling for the construction workforce.
- 37 (n) Including traffic control procedures in contract specifications for construction of the
 38 facility.

- 1(o)Keeping Highway 19 free of gravel that tracks out onto the highway at facility access2points.

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74 The certificate holder shall ensure that no equipment or machinery is parked or stored on any County road whether inside or outside the site boundary. The certificate holder may temporarily park equipment off the road but within County rights-of-way with the approval of the Gilliam County Road Department-or, where applicable, the Morrow County Public Works Department.

7 <u>75</u> The certificate holder shall cooperate with the Gilliam County Road Department to ensure that 8 any unusual damage or wear to county roads that is caused by construction of the facility is 9 repaired by the certificate holder. Submittal to the Department of an executed Road Use 10 Agreement with Gilliam County shall constitute evidence of compliance with this condition. 11 Upon completion of construction, the certificate holder shall restore public roads to pre-12 construction condition or better to the satisfaction of the applicable county departments. If 13 required by Gilliam County, the certificate holder shall post bonds to ensure funds are available 14 to repair and maintain roads affected by the facility. If construction of a phase of the facility will 15 utilize county roads in counties other than Gilliam County, the certificate holder shall coordinate 16 with the Department and the respective county road departments regarding the 17 implementation of a similar Road Use Agreement. [AMD4AMD5]

- 1876During construction, the certificate holder shall require that all on-site construction contractors19develop and implement a site health and safety plan that informs workers and others on-site20about first aid techniques and what to do in case of an emergency and that includes important21telephone numbers and the locations of on-site fire extinguishers and nearby hospitals. The22certificate holder shall ensure that construction contractors have personnel on-site who are23trained and equipped for tower rescue and who are first aid and CPR certified.
- 24 During operation of the facility, the certificate holder shall develop and implement a site health 77 25 and safety plan that informs employees and others on-site about first aid techniques and what 26 to do in case of an emergency, including a contingency plan in a fire emergency, and that 27 includes important telephone numbers and the locations of on-site fire extinguishers, nearby 28 hospitals, Gilliam County Sheriff's Office and the office locations of the backup law enforcement 29 services. The certificate holder shall ensure that operations personnel are trained and equipped 30 for tower rescue. If the certificate holder conducts an annual emergency drill or performs tower 31 rescue training at the facility, the North Gilliam County Rural Fire Protection District and the 32 Arlington Fire Department will be invited to observe. [AMD4AMD5]

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- (a) During construction of each phase of the facility, the certificate holder shall provide on-site security within the facility site boundary, and shall establish good communications between on-site security personnel and the Gilliam County Sheriff's Office by establishing a communication protocol between the security personnel and the Sherriff's office. The communication protocol shall be sent to the Department prior to construction.
- (b) During operation, the certificate holder shall ensure that appropriate law enforcement agency personnel have an up-to-date list of the names and telephone numbers of facility personnel available to respond on a 24-hour basis in case of an emergency on the facility site. The list shall also be sent to the Department.

1 79 The certificate holder shall notify the Department of Energy and the Gilliam County Planning 2 Department within 72 hours of any accidents including mechanical failures on the site 3 associated with construction or operation of the facility that may result in public health and 4 safety concerns 5 6. Water, Soils, Streams & Wetlands Conditions 6 <u>80</u> 7 i. The certificate holder shall conduct all construction work in compliance with an Erosion and 8 Sediment Control Plan (ESCP) satisfactory to the Oregon Department of Environmental 9 Quality and as required under the National Pollutant Discharge Elimination System (NPDES) 10 Storm Water Discharge General Permit #1200-C. The certificate holder shall include in the 11 ESCP any procedures necessary to meet local erosion and sediment control requirements or 12 storm water management requirements. 13 ii. 14 a. Before beginning construction of Phase 2 wind energy generation components, the 15 certificate holder shall submit to the Department and Gilliam County Planning Director 16 for review and approval a topsoil management plan including how topsoil will be 17 stripped, stockpiled, and clearly marked in order to maximize topsoil preservation and 18 minimize erosion impacts. [OAR 660 033 0130(38)(f)(B)]. The topsoil management plan 19 may be incorporated into the final Erosion and Sediment Control Plan, required under 20 sub(c) or may be provided to the Department as a separate plan. 21 iii.ii. Prior to beginning facility operation, the certificate holder shall provide the Department a 22 copy of an operational SPCC plan, if required pursuant to OAR 340-141-0001 to -0240. 23 AMD4AMD5 24 25 During construction, the certificate holder shall limit truck traffic to improved road surfaces to 81 26 avoid soil compaction, to the extent practicable. 27 82 During construction, the certificate holder shall implement best management practices to 28 control any dust generated by construction activities, such as applying water to roads and 29 disturbed soil areas. 30 Before beginning construction of the facility or a phase of the facility, the certificate holder shall 83 31 provide to the Department a map showing the final design locations of all components of the 32 facility or phase of the facility, and the areas that would be disturbed during construction and 33 showing the wetlands and stream channels previously surveyed by CH2M HILL or HDR as 34 described in the Final Order on the Application and the Final Order on Amendment #4. For areas 35 to be disturbed during construction that lie outside of the previously-surveyed areas, the 36 certificate holder shall hire qualified personnel to conduct a pre-construction investigation to 37 determine whether any jurisdictional waters of the State exist in those locations within the 38 proposed expanded site boundary. The certificate holder shall provide a written report on the 39 pre-construction investigation to the Department and the Department of State Lands for 40 approval before beginning construction of the phase. The certificate holder shall ensure that 41 construction and operation of the facility will have no impact on any jurisdictional water 42 identified in the pre-construction investigation.

43 <u>84</u> The certificate holder shall avoid impacts to waters of the state in the following manner:

1 (a) The certificate holder shall avoid any disturbance to delineated wetlands. 2 (b) The certificate holder shall construct stream crossings for roads and underground 3 collector lines substantially as described in the Final Order on the Application or the 4 Final Order on Amendment #4. In particular, the certificate holder shall not remove 5 material from waters of the State or add new fill material to waters of the State such 6 that the total volume of removal and fill exceeds 50 cubic yards for the project as a 7 whole. 8 (c) The certificate holder shall construct support poles for aboveground lines outside of 9 delineated stream channels and shall avoid in-channel impacts. 10 [AMD4AMD5] 11 During facility operation, the certificate holder shall routinely inspect and maintain all facility 85 12 components including roads, pads (including turbine and battery storage pad), pads, solar array, 13 and trenched areas and, as necessary, maintain or repair erosion and sediment control 14 measures. [AMD4AMD5] 15 86 During facility operation, the certificate holder shall obtain water for on-site uses from an on-16 site wellswell located near the Montague Solar O&M buildingsbuilding. The certificate holder 17 shall construct on-site wellswell subject to compliance with the provisions of ORS 537.765 18 relating to keeping a well log. The certificate holder shall not use more than 5,000 gallons of 19 water per day from the on-site wellswell. The certificate holder may use other sources of water 20 for on-site uses subject to prior approval by the Department. 21 87 During facility operation, if wind turbine blade or solar panel-washing becomes necessary, the 22 certificate holder shall ensure that there is no runoff of wash water from the site or discharges 23 to surface waters, storm sewers or dry wells. The certificate holder shall not use acids, bases or 24 metal brighteners with the wash water. The certificate holder may use biodegradable, 25 phosphate-free cleaners sparingly. [AMD4AMD5] 26 7. Transmission Line & EMF Conditions 27 88 The certificate holder shall install the 34.5-kV collector system underground to the extent 28 practical. The certificate holder shall install underground lines at a minimum depth of three feet. 29 Based on geotechnical conditions or other engineering considerations, the certificate holder 30 may install segments of the collector system aboveground, but the total length of aboveground 31 segments must not exceed 27 miles. 32 89 The certificate holder shall take reasonable steps to reduce or manage human exposure to 33 electromagnetic fields, including but not limited to: 34 (a) Constructing all above ground transmission lines at least 200 feet from any residence or 35 other occupied structure, measured from the centerline of the transmission line. 36 (b) Providing to landowners a map of underground and overhead transmission lines on 37 their property and advising landowners of possible health risks from electric and 38 magnetic fields.

1 (c) Designing and maintaining all transmission lines so that alternating current electric fields 2 do not exceed 9 kV per meter at one meter above the ground surface in areas accessible 3 to the public. 4 (d) Designing and maintaining all transmission lines so that induced voltages during 5 operation are as low as reasonably achievable. 6 90 In advance of, and during, preparation of detailed design drawings and specifications for 230-kV 7 and 34.5-kV transmission lines, the certificate holder shall consult with the Utility Safety and 8 Reliability Section of the Oregon Public Utility Commission to ensure that the designs and 9 specifications are consistent with applicable codes and standards. 10 8. Plants, Wildlife & Habitat Protection Conditions 11 91 Prior to construction of the Facility or a phase of the Facility facility, the certificate holder shall 12 finalize the Wildlife Monitoring and Mitigation Plans (WMMPs), based on the draft WMMP 13 included as Attachment F of the Final Order on Request for Amendment #45, as approved by the 14 Department in consultation with ODFW. The certificate holder shall conduct wildlife monitoring 15 as described in the final WMMP, as amended from time to time. [Amendment #3; AMD4AMD5] 16 92 The certificate holder shall restore areas disturbed by facility construction but not occupied by 17 permanent facility structures according to the methods and monitoring procedures described in 18 the final Revegetation Plans for each phase of the Facility facility, as approved by the 19 Department in consultation with ODFW. The final Revegetation Plan shall be based on the draft 20 plan as Attachment E in the Final Order on Request for Amendment #45, and as amended from 21 time to time. [Amendment #3; AMD4AMD5] 22 93 The certificate holder shall: 23 (a) Acquire the legal right to create, enhance, maintain and protect a habitat mitigation area as 24 long as the site certificate is in effect by means of an outright purchase, conservation 25 easement or similar conveyance and shall provide a copy of the documentation to the 26 Department. Within the habitat mitigation area, the certificate holder shall improve the 27 habitat quality as described in the final Habitat Mitigation Plans for each phase of the 28 Facility, as approved by the Department in consultation with ODFW. The final Habitat 29 Mitigation Plans shall be based on the draft plan included as Attachment G to the Final 30 Order on Request for Amendment #3 and updated based on Condition 31. The final Habitat 31 Mitigation Plans may be amended from time to time. [Amendment #3; AMD4AMD5] 32 (b) Prior to construction of Phase 2 components, the certificate holder shall finalize and 33 implement the Phase 2 Habitat Mitigation Plan (HMP) included as Attachment D of the Final 34 Order, as approved by ODOE in Consultation with ODFW. Provision 93(b)(A) regarding 35 impacted acreage calculations shall be completed and submitted to the department after 36 construction is complete as described in the condition below. 37 (c) Within 90 days of completion of construction, the certificate holder shall submit to the 38 department and ODFW an updated HMP Table. 39 AMD4AMD5

$ \begin{array}{r} 1 \\ 2 \\ 3 \\ 4 \\ 5 \\ 6 \\ 7 \\ 8 \\ 9 \\ 10 \\ 11 \\ 12 \\ 13 \\ 14 \\ 15 \\ \end{array} $	<u>94</u>	The certificate holder shall determine the boundaries of Category 1 Washington ground squirrel (WGS) habitat based on the locations where the squirrels were found to be active in the most recent WGS survey prior to the beginning of construction in habitat suitable for WGS foraging or burrow establishment ("suitable habitat"). The certificate holder shall hire a qualified professional biologist who has experience in detection of WGS to conduct surveys using a survey protocol approved by the Oregon Department of Fish and Wildlife (ODFW). The biologist shall survey all areas of suitable habitat where permanent facility components would be located or where construction disturbance could occur. Except as provided in (a), the biologist shall conduct the protocol surveys in the active squirrel season (March 1 to May 31) in 2010 and in the active squirrel seasons in subsequent years until the beginning of construction in suitable habitat. The certificate holder shall provide written reports of the surveys to the Department and to ODFW and shall identify the boundaries of Category 1 WGS habitat. The certificate holder shall not begin construction within suitable habitat until the identified boundaries of Category 1 WGS habitat includes the areas described in (b) and (c).
16 17 18 19		(a) The certificate holder may omit the WGS survey in any year if the certificate holder avoids all permanent and temporary disturbance within suitable habitat until a WGS survey has been completed in the following year and the boundaries of Category 1 habitat have been determined and approved based on that survey.
20 21 22 23 24		(b) Category 1 WGS habitat includes the area within the perimeter of multiple active WGS burrows plus a 785-foot buffer, excluding areas of habitat types not suitable for WGS foraging or burrow establishment. If the multiple-burrow area was active in a prior survey year, then Category 1 habitat includes the largest extent of the active burrow area ever recorded (in the current or any prior-year survey), plus a 785-foot buffer.
25 26 27 28 29		(c) Category 1 WGS habitat includes the area containing single active burrow detections plus a 785-foot buffer, excluding areas of habitat types not suitable for WGS foraging or burrow establishment. Category 1 habitat does not include single-burrow areas that were found active in a prior survey year but that are not active in the current survey year.
30 31	<u>95</u>	The certificate holder shall implement measures to mitigate impacts to sensitive wildlife habitat during construction including, but not limited to, the following:
32 33		(a) The certificate holder shall not construct any facility components within areas of Category 1 habitat and shall avoid temporary disturbance of Category 1 habitat.
34 35 36 37 38 39 40 41		(b) Before beginning construction, but no more than two years prior to the beginning of construction of a phase of the facility, the certificate holder shall hire a qualified professional biologist to conduct a survey of all areas to be disturbed by construction for threatened and endangered species. The certificate holder shall provide a written report of the survey and a copy of the survey to the Department, the Oregon Department of Fish and Wildlife (ODFW), and the Oregon Department of Agriculture (ODA). If the surveys identify the presence of threatened or endangered species within the survey area, the certificate holder shall implement appropriate measures to avoid a significant

1 2			reduction in the likelihood of Department, in consultation v	survival or recovery of the spe vith ODA and ODFW.	ecies, as approved by the
3 4 5 6 7		(c)	Before beginning construction professional biologist shall sur ensure that the sensitive use a avoided during construction. markings until construction ha	n of a phase of the facility, the rvey the Category 1 Washingto area is correctly marked with The certificate holder shall ma as been completed.	certificate holder's qualified on ground squirrel habitat to exclusion flagging and aintain the exclusion
8 9 10 11 12		(d)	Before beginning construction professional biologist shall con 2009 at six plots within or nea Application. The certificate ho to the Department and to OD	n of a phase of the facility, cer mplete the avian use studies t ar the facility site as described older shall provide a written re FW.	tificate holder's qualified hat began in September in the Final Order on the port on the avian use studies
13 14 15 16 17 18 19 20 21 22 23 24		(e) (d)	Before beginning construction certificate holder's qualified p within the raptor nest survey The purposes of the survey ar areas and to provide baseline the Wildlife Monitoring and N holder shall provide a written Department and to ODFW. If the survey area, the certificate ho the design, construction and of wildlife habitat mitigation goat the Department, in consultation	or of a phase <u>Before beginning</u> professional biologist shall com area as described in the Final re to identify any sensitive rap information on raptor nest us ditigation Plan referenced in C report on the raptor nest sur- the surveys identify the prese older shall implement appropr operation of the facility are co als and standards of OAR 635-4 on with ODFW.	construction of the facility, nplete raptor nest surveys Order on the Application. tor nests near construction se for analysis as described in condition 91. The certificate veys and the surveys to the nce of raptor nests within the iate measures to assure that nsistent with the fish and 415-0025, as approved by
25 26 27 28		(f)<u>(</u>e)	In the final design layout of th components, access roads and permanent impacts to high qu general landscape where prac	e facility, the certificate holde d construction areas to avoid uality native habitat and to ret cticable.	er shall locate facility or minimize temporary and ain habitat cover in the
29 30 31	<u>96</u>	During foot bu period,	construction, the certificate ho Iffer around potentially-active r , as provided in this condition:	older shall avoid all construction nest sites of the following spe	on activities within a 1,300- cies during the sensitive
		<u>Spec</u>	lies	Sensitive Period	Early Release Date
		Swai	inson's hawk	April 1 to August 15	May 31
		Ferr	uginous hawk	March 15 to August 15	May 31

During the year in which construction occurs, the certificate holder shall use a protocol
 approved by the Oregon Department of Fish and Wildlife (ODFW) to determine whether there
 are any active nests of these species within a half-mile of any areas that would be disturbed
 during construction. The certificate holder shall begin monitoring potential nest sites by March

April 1 to August 15

Burrowing owl

July 15

- 15 and shall continue monitoring until at least May 31 to determine whether any potentially active nest sites become active during the sensitive period.
- 3 If any nest site is determined to be unoccupied by the early release date (May 31), then 4 unrestricted construction activities may occur within 1,300 feet of the nest site after that date. If 5 a nest is occupied by any of these species after the beginning of the sensitive period, the 6 certificate holder will flag the boundaries of a 1,300-foot buffer area around the nest site and 7 shall instruct construction personnel to avoid disturbance of the buffer area. During the 8 sensitive period, the certificate holder shall not engage in high-impact construction activities 9 (activities that involve blasting, grading or other major ground disturbance) within the buffer 10 area. The certificate holder shall restrict construction traffic within the buffer, except on public 11 roads, to vehicles essential to the limited construction activities allowed within the buffer.
- If burrowing owl nests are occupied during the sensitive period, the certificate holder may
 adjust the 1,300-foot buffer around these nests after consultation with ODFW and subject to the
 approval of the Department.
- 15The certificate holder shall hire a qualified independent professional biologist to observe the16active nest sites during the sensitive period for signs of disturbance and to notify the17Department of any non-compliance with this condition. If the biologist observes nest site18abandonment or other adverse impact to nesting activity, the certificate holder shall implement19appropriate mitigation, in consultation with ODFW and subject to the approval of the20Department, unless the adverse impact is clearly shown to have a cause other than construction21activity.
- The certificate holder may begin or resume construction activities within the buffer area before
 the ending day of the sensitive period with the approval of ODFW, after the young are fledged.
 The certificate holder shall use a protocol approved by ODFW to determine when the young are
 fledged (the young are independent of the core nest site).
- 26 The certificate holder shall protect the area within 1,300 feet of the BLM Horn Butte Wildlife 97 27 Area during the long-billed curlew nesting season (March 8 through June 15), as described in 28 this condition. Before beginning construction, the certificate holder shall provide to the 29 Department a map showing the areas of potential construction disturbance in the vicinity of the 30 BLM lands that are part of the Horn Butte Wildlife Area and showing a 1,300-foot buffer from 31 those areas. During the nesting season, the certificate holder shall not engage in high-impact 32 construction activities (activities that involve blasting, grading or other major ground 33 disturbance) or allow high levels of construction traffic within the buffer area. The certificate 34 holder shall flag the boundaries of the 1,300 foot buffer area and shall instruct construction 35 personnel to avoid any unnecessary activity within the buffer area. The certificate holder shall 36 restrict construction traffic within the buffer, except on public roads, to vehicles essential to the 37 limited construction activities allowed within the buffer. The certificate holder may engage in 38 construction activities within the buffer area at times other than the nesting season.
- 3998The certificate holder shall implement measures to avoid or mitigate impacts to sensitive40wildlife habitat during construction including, but not limited to, the following:
- 41 42
- (a) Preparing maps to show occlusion areas that are off-limits to construction personnel, such as nesting or denning areas for sensitive wildlife species.

1		(b) Avoiding unnecessary road construction, temporary disturbance and vehicle use.
2 3		(c) Limiting construction work to approved and surveyed areas shown on facility constraints maps.
4 5 6		(d) Ensuring that all construction personnel are instructed to avoid driving cross-country or taking short-cuts within the site boundary or otherwise disturbing areas outside of the approved and surveyed construction areas.
7	<u>99</u>	The certificate holder shall reduce the risk of injuries to avian species by:
8 9		(a) Installing turbine towers that are smooth steel structures that lack features that would allow avian perching.
10 11		(b)-Locating turbine towers to avoid areas of increased risk to avian species, such as cliff edges, narrow ridge saddles and gaps between hilltops.
12 13		(c) Installing meteorological towers that are non-guyed structures to eliminate the risk of avian collision with guy-wires.
14 15 16	Design	ting designing and installing all aboveground transmission line support structures following the most current suggested practices for avian protection on power lines published by the Avian Power Line Interaction Committee.
17 18 19 20 21 22	<u>100</u>	The certificate holder shall hire a qualified environmental professional to provide environmental training during construction and operation. Environmental training includes information on the sensitive species present onsite, precautions to avoid injuring or destroying wildlife or sensitive wildlife habitat, exclusion areas, permit requirements and other environmental issues. The certificate holder shall instruct construction and operations personnel to report any injured or dead wildlife detected while on the site to the appropriate onsite environmental manager.
23 24 25 26 27 28	<u>101</u>	The certificate holder shall impose and enforce a construction and operation speed limit of 20 miles per hour throughout the facility site and, during the active squirrel season (March 1 to May 31), a speed limit of 10 miles per hour from one hour before sunset to one hour after sunrise on private roads near known Washington ground squirrel (WGS) colonies. The certificate holder shall ensure that all construction and operations personnel are instructed to watch out for and avoid WGS and other wildlife while driving through the facility site.
29	9. Vi	sual Effects Conditions
30	<u>102</u>	To reduce the visual impact of the facility, the certificate holder shall:
31 32		(a) Mount nacelles on smooth, steel structures, painted uniformly in a low-reflectivity, neutral white color.
33 34		(b)(a) Paint the <u>Montague Solar collector</u> substation structures<u>structure</u> in a low- reflectivity neutral color to blend with the surrounding landscape.
35		(c)(b) Not allow any advertising to be used on any part of the facility.

1 2 3 4 5		(d)(c) Use only those signs required for facility safety, required by law or otherwise required by this site certificate, except that the certificate holder may erect a sign near the <u>Montague Solar</u> O&M <u>buildingsbuilding</u> to identify the facility, may paint turbine numbers on each tower and may allow unobtrusive manufacturers' logos on turbine nacelles.
6		(e)(d) Maintain any signs allowed under this condition in good repair.
7 8 9 10 11	<u>103</u>	The certificate holder shall design and construct the <u>Montague Solar</u> O&M <u>buildingsbuilding</u> , substation, and buildings and containers associated with battery storage to be generally consistent with the character of similar buildings used by commercial farmers or ranchers in the area and shall paint the building in a low-reflectivity, neutral color to blend with the surrounding landscape. [<u>AMD4AMD5</u>]
12	<u>104</u>	The certificate holder shall not use exterior nighttime lighting except:
13 14		(a) The minimum turbine tower lighting required or recommended by the Federal Aviation Administration.
15 16 17		(b)(a) Security lighting at the Montague Solar O&M buildingsbuilding and at the substationssubstation, provided that such lighting is shielded or downward-directed to reduce glare.
18		(c)(b) Minimum lighting necessary for repairs or emergencies.
19 20		(d)(c) Minimum lighting necessary for construction directed to illuminate the work area and shielded or downward-directed to reduce glare.
21 22 23 24 25	<u>105</u> —	The certificate holder shall maintain a minimum distance of 1,000 feet measured from the centerline of each turbine tower or meteorological tower to the centerline of the line of sight from the vantage point of the Fourmile Canyon interpretive site looking toward the visible Oregon Trail ruts (bearing S 89-42-34 W from latitude, longitude: 45.622047, -120.044112) as described in the Final Order on the Application.
26	10. N	pise Control Conditions
27	<u>106</u>	To reduce construction noise impacts at nearby residences, the certificate holder shall:
28		(a) Confine the noisiest operation of heavy construction equipment to the daylight hours.
29 30		(b) Require contractors to install and maintain exhaust mufflers on all combustion engine- powered equipment; and
31 32		(c) Establish a complaint response system at the construction manager's office to address noise complaints.
33	<u>107</u>	The certificate holder shall provide to the Department:
34		i.—Prior to Phase 1 construction:

1		a. Information that identifies the final design locations of (all turbines, to be built at the
2		iii Drier to Dhace 2 construction
		H.I. PHOF to Phase 2 construction:
4		a. A noise analysis that includes the following information:
5		
6		Final design locations of all Phase 1 and Phase 2 noise-generating facility components
1		(all wind turbines; substation transformers; inverters and transformers associated with
8		the photovoltaic solar array; and inverters and cooling systems associated with battery
9		storage system).
10		
11		The maximum sound power level for the Phase 2Montague Solar collector substation
12		transformers ; and the inverters and transformers associated with the photovoltaic solar
13		array; and inverters and cooling systems associated with battery storage system; and
14		the maximum sound power level and octave band data for the Phase 2 wind turbines
15		selected for the facility based on manufacturers' warranties or confirmed by other
16		means accentable to the Department
17		
18		The results of noise analysis of Phase 1 and Phase 2 components according to the final
10		design performed in a manner consistent with the requirements of OAP 340-035-
20		0.02E(1)/(h)/(h)/(h)/(h)/(h)/(h)/(h)/(h)/(h)/(h
20		the total paice generated by the facility (including the paice from wind turbines
21		the total hoise generated by the facility (including the hoise from wind turbines,
22		substation transformers, inverters and transformers associated with the photovoltaic
23		solar array; inverters and cooling systems associated with battery storage system) would
24		meet the ambient degradation test and maximum allowable test at the appropriate
25		measurement point for all potentially-affected noise- <u>-</u> sensitive properties. The
26		certificate holder shall verify that all noise sensitive properties within one mile of the
27		final design locations of noise- <u>-</u> generating components for Phase 1 and Phase 2 have
28		been identified and included in the preconstruction noise analysis based on review of
29		the most recent property owner information obtained from the Gilliam County Tax
30		Assessor Roll.
31		
32		For each noise-sensitive property where the certificate holder relies on a noise waiver to
33		demonstrate compliance in accordance with OAR 340-035-0035(1)(b)(B)(iii)(III), a copy
34		of the a legally effective easement or real covenant pursuant to which the owner of the
35		property authorizes the certificate holder's operation of the facility to increase ambient
36		statistical noise levels 110 and 150 by more than 10 dBA at the appropriate
30		manufacture and the legally effective assement or real covenant muct: include a
28		local description of the burdened preparty (the poice constitue preparty); he recorded in
20 20		the real measure and a fith a source surger by here fit the source in the real measure of the source in the source of the source
39		the real property records of the county; expressly benefit the certificate holder;
40		expressly run with the land and bind all future owners, lessees or holders of any interest
41		in the burdened property; and not be subject to revocation without the certificate
42		holder's written approval.
43		[Final Order on ASC; AMD4AMD5]
44	<u>108</u>	During operation of the facility, the certificate holder shall implement measures to ensure
45		compliance with the noise control regulation, including:

1 2		 Providing notice of the noise complaint system and how to file a noise complaint to noise sensitive receptors within 1-mile of noise generating components.
3 4 5 6 7 8 9 10 11		b. Maintain a complaint response system to address noise complaints. The certificate holder shall promptly notify the Department of any complaints received regarding facility noise and of any actions taken by the certificate holder to address those complaints. In response to a complaint from the owner of a noise sensitive property regarding noise levels during operation of the facility, the Council may require the certificate holder to monitor and record the statistical noise levels to verify that the certificate holder is operating the facility in compliance with the noise control regulations. [AMD4AMD5]
12	11. W	aste Management Conditions
13 14 15	<u>109</u>	The certificate holder shall provide portable toilets for on-site sewage handling during construction and shall ensure that they are pumped and cleaned regularly by a licensed contractor who is qualified to pump and clean portable toilet facilities.
16 17 18 19	<u>110</u>	During operation of the facility, the certificate holder shall discharge sanitary wastewater generated at the <u>Montague Solar</u> O&M <u>buildingsbuilding</u> to <u>a</u> licensed on-site septic <u>systemssystem</u> in compliance with State permit requirements. The certificate holder shall design the septic <u>systemssystem</u> for a discharge capacity of less than 2,500 gallons per day.
20 21	<u>111</u>	The certificate holder shall implement a waste management plan during construction that includes but is not limited to the following measures:
22		(a) Recycling steel and other metal scrap.
23		(b) Recycling wood waste.
24		(c) Recycling packaging wastes such as paper and cardboard.
25		(d) Collecting non-recyclable waste for transport to a local landfill by a licensed waste hauler.
26 27 28 29		(e) Segregating all hazardous wastes such as used oil, oily rags and oil-absorbent materials, and mercury-containing lights and lithium-ion, flow, lead-acid and nickel-cadmium batteries for disposal by a licensed firm specializing in the proper recycling or disposal of hazardous wastes. [AMD4AMD5]
30 31 32		(f) Confining concrete delivery truck rinse-out within the foundation excavation, discharging rinse water into foundation holes and burying other concrete waste as part of backfilling the turbine foundation.
33 34	<u>112</u>	The certificate holder shall implement a waste management plan during facility operation that includes but is not limited to the following measures:
35		(a) Training employees to minimize and recycle solid waste.
36		(b) Recycling paper products, metals, glass and plastics.

1		(c) Recycling used oil and hydraulic fluid
2		(d) Collecting non-recyclable waste for transport to a local landfill by a licensed waste hauler.
3 4 5 6		(e) Segregating all hazardous, non-recyclable wastes such as used oil, oily rags and oil- absorbent materials, <u>and mercury-containing lights and lithium-ion</u> , flow, lead-acid and nickel-cadmium batteries for disposal by a licensed firm specializing in the proper recycling or disposal of hazardous wastes. [AMD4AMD5]
7	VI.	CONDITIONS ADDED BY AMENDMENT # 1 OF MONTAGUE
8 9 10 11 12 13 14	<u>113</u>	The transfer of the First Amended Site Certificate from the certificate holder to Portland General Electric (PGE), the transferee, shall not be effective until PGE executes in closing the form of site certificate naming PGE the certificate holder, which is attached as Attachment B to the Final Order on Amendment #1. Upon closing, the First Amended Site Certificate naming PGE as the certificate holder shall be in full force and effect and the First Amended Site Certificate naming Montague Wind Power LLC as the certificate holder shall be considered rescinded and void in its entirety[Removed by Amendment #2.]
15 16 17	<u>114</u>	Should the closing contemplated in Condition 113 not occur within 18 months of the effective date of the First Amended Site Certificate to Montague Wind Power LLC, the Council's transfer approval within the Final Order on Amendment #1 shall be void. [Removed by Amendment #2.]
18 19 20	<u>115</u>	PGE must provide the Department a copy of the executed First Amended Site Certificate and documentation of the asset purchase agreement within 7 days of closing [Removed by Amendment #2.]
21	VII.	CONDITIONS ADDED BY AMENDMENT #4 OF MONTAGUE
22 23 24	<u>116:</u>	The certificate holder shall ensure its third-party contractor transports and disposes of battery and battery waste in compliance with all applicable regulations and manufacturer recommendations related to the transport of hazardous battery materials.
25 26 27		a. Prior to construction, the certificate holder shall provide a description to the Department of applicable regulations and manufacturer recommendations applicable to the transport and disposal of batteries and battery related waste.
28 29 30		b.—During construction and operation, the certificate holder shall report to the Department any potential compliance issue or cited violations of its third-party contractor for the requirements identified in sub(a) of this condition.
31		<mark>e.<u>b.</u> [</mark> AMD4]
32 33 34 35 36	<u>117</u>	During facility operation, the certificate holder shall conduct monthly inspections of the battery storage systems, in accordance with manufacturer specifications. The certificate holder shall maintain documentation of inspections, including any corrective actions, and shall make available for review upon request by the Department. [AMD4]

1 -CONDITIONS ADDED BY AMENDMENT #5 2 3 The site certificate authorizes shared use of related or supporting facilities including the 118 4 Montague Solar collector substation, Montague Solar O&M building, battery storage system, 5 230 kV transmission line, access roads, and temporary staging areas under the site certificates 6 issued for the Montague Solar Facility and Oregon Trail Solar Facility. The site certificate 7 authorizes shared use of related or supporting facilities including the Montague Wind collector 8 substation under the site certificates issued for the Montague Wind Facility, Montague Solar 9 Facility and Oregon Trail Solar Facility. 10 a. Within 30 days of shared use, the certificate holder must provide evidence to the 11 Department that the certificate holders have an executed agreement for shared use of 12 facilities. 13 b. If certificate holders of Montague Wind, Montague Solar or Oregon Trail Solar Facility 14 propose to substantially modify any of the shared facilities listed in sub(a) of this condition, 15 each certificate holder shall submit an amendment determination request or request for 16 site certificate amendment to obtain a determination from the Department on whether a 17 site certificate amendment is required or to process an amendment for both site 18 certificates. 19 c. Prior to facility decommissioning or if facility operations cease, each certificate holder shall 20 submit an amendment determination request or request for site certificate amendment to 21 document continued ownership and full responsibility, including coverage of full 22 decommissioning amount of the shared facilities in the bond or letter of credit pursuant to 23 Condition 32, for the operational facility, if facilities are decommissioned at different times. 24

25 VIII. SUCCESSORS AND ASSIGNS

To transfer this site certificate or any portion thereof or to assign or dispose of it in any other manner,
 directly or indirectly, the certificate holder shall comply with OAR 345-027-01000400.

28 IX. SEVERABILITY AND CONSTRUCTION

If any provision of this agreement and certificate is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and conditions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the agreement and certificate did not contain the particular provision held to be invalid.

33 X. GOVERNING LAW AND FORUM

This site certificate shall be governed by the laws of the State of Oregon. Any litigation or arbitrationarising out of this agreement shall be conducted in an appropriate forum in Oregon.

36 XI. EXECUTION

This site certificate may be executed in counterparts and will become effective upon signature by the Chair of the Energy Facility Siting Council and the authorized representative of the certificate holder.

39

- 40 IN WITNESS WHEREOF, this site certificate has been executed by the State of Oregon, acting by and
- 41 through its Energy Facility Siting Council, and by Montague Wind Power FacilitySolar, LLC.

MONTAGUE WIND POWERSOLAR FACILITY FOURTH AMENDED SITE CERTIFICATE - August 2019 2020

	1		
•			
	2)	

ENERGY FACILITY SITTING COUNCIL	MONTAGUE WIND POWER FACILITYSOLAR, LLC
Ву:	Ву:
Print:	Print:
Date:	Date:
	and
	Ву:
	Print:
	Date:

MONTAGUE WIND POWERSOLAR FACILITY FOURTH AMENDED SITE CERTIFICATE - August 2019 2020



Figure 1: Site Boundary and 230 kV transmission line corridor

1

MONTAGUE SOLAR FACILITYFIFTH AMENDED SITE CERTIFICATE —2020

ENERGY FACILITY SITING COUNCIL

OF THE

STATE OF OREGON

Fourth Amended Site Certificate

for the

Montague Wind PowerOregon Trail Solar Facility

August 23, 2019

The Oregon Energy Facility Siting Council

I. INTRODUCTION

2 The Oregon Energy Facility Siting Council (Council) issues this site certificate for the Montague Wind

3 PowerOregon Trail Solar Facility (the facility) in the manner authorized under ORS Chapter 469. This site

4 certificate is a binding agreement between the State of Oregon (State), acting through the Council, and

5 <u>Montague Wind Power FacilityOregon Trail Solar</u>, LLC (certificate holder), a wholly owned subsidiary of

6 <u>Avangrid Renewables, LLC (certificate holder owner)</u> authorizing the certificate holder to construct and

7 operate the facility in Gilliam County, Oregon. -[Amendment #3]-5]

8 The findings of fact, reasoning and conclusions of law underlying the terms and conditions of this site

9 certificate are set forth in the following documents, incorporated herein by this reference: -(a) the Final

10 Order on the Application for Site Certificate for the Montague Wind Power Facility issued on September

11 10, 2010 (hereafter, Final Order on the Application), (b) the Final Order on Amendment #1 issued on

12 June 21, 2013; and, (c) the Final Order on Amendment #2 issued on December 4, 2015; (d) the Final

13 Order on Amendment #3 issued on July 11, 2017; and (e) the Final Order on Amendment #4 issued on

August 23, 2019<u>; and (f) the Final Order on Amendment #5 issued on , 2020</u>. In interpreting this site certificate, any ambiguity will be clarified by reference to the following, in order of priority: -(1) this

15 site certificate, any ambiguity will be clarified by reference to the following, in order of priority: -(1) this 16 FourthFifth Amended Site Certificate, (2) the Final Order on Amendment #45, (3) the Final Order on

Fourth<u>Fifth</u> Amended Site Certificate, (2) the Final Order on Amendment #4<u>5</u>, (3) the Final Order on
 Amendment #<u>3</u>4, (4) the Final Order on Amendment #<u>2</u>3, (5) the Final Order on Amendment <u>#1</u> #2, (6)

18 the Final Order on Amendment #1, (7) the Final Order on the Application, and (78) the record of the

19 proceedings that led to the Final Order on the Application, the Final Order on Amendment #1, and the

20 Final Order on Amendment #2. [Amendment #2]

21 As authorized in Final Order on Amendment #5, the Montague Wind Power Facility certificate holder

22 obtained approval to split the Montague Wind Power Facility site certificate into three site certificates –

23 Montague Wind Power Facility, Montague Solar Facility and Oregon Trail Solar Facility. Each of these

24 certificate holders is a wholly owned subsidiary and LLC created by Avangrid Renewables, LLC resulting

25 in each certificate holder owned by the same parent company. In addition, these facilities share facility

26 <u>components, interconnecting facility components and long-term operation.</u>
 27

28 Because the findings of fact, reasoning and conclusions of law underlying the terms and conditions of

29 the site certificate are set forth in the 2010 Final Order on the Application for Site Certificate and

30 subsequent Final Orders on Requests for Amendment 1 through 5 for the Montague Wind Power

31 Facility, which are incorporated by reference into the site certificate, these underlying findings, including

32 any findings establishing the predevelopment condition of the site and impacts of approved facility

33 components continue to have bearing on the analysis and findings required to approve any future

34 changes to the site certificates for the successor facilities. In other words, environmental impacts

35 evaluated in future site certificate amendment requests shall be based on 2010 predevelopment

36 conditions and the incremental change in environmental impact based on the original site certificate

37 application review and subsequent amendments to the Montague Wind Power Facility site certificate,

38 <u>either as approved or in operation, at the time of the amendment request. This clarification is intended</u>
 39 to establish that, with the splitting of facility components under three site certificates, baseline

39 to establish that, with the splitting of facility components under three site certificates, baseline 40 conditions and environmental impacts shall not adjusted in a way that results in greater overall impa

- 40 conditions and environmental impacts shall not adjusted in a way that results in greater overall impacts
 41 than the level of impacts that would be authorized under one site certificate.
- 42

MONTAGUE WIND POWEROREGON TRAIL SOLAR FACILITY

1 FOURTH AMENDED SITE CERTIFICATE — August 2019 —

2020

1 The definitions in ORS 469.300 and OAR 345-001-0010 apply to terms used in this site certificate, except 2 where otherwise stated or where the context clearly indicates otherwise.

II. SITE CERTIFICATION

3 (a) To the extent authorized by state law and subject to the conditions set forth herein, the 4 State authorizes the certificate holder to construct, operate and retire a wind and 5 photovoltaic (PV) solar energy facility, together with certain related or supporting 6 facilities, at the site in Gilliam County, Oregon, as described in Section III of this site 7 certificate. ORS 469.401(1). [ASC; AMD4; AMD5] 8 This site certificate is effective until it is terminated under OAR 345-027-0110 or the (a) 9 rules in effect on the date that termination is sought or until the site certificate is 10 revoked under ORS 469.440 and OAR 345-029-0100 or the statutes and rules in effect 11 on the date that revocation is ordered. ORS 469.401(1). 12 (a) This site certificate does not address, and is not binding with respect to, matters that 13 were not addressed in the Final Order on the Application, Final Order on Amendment #1 14 Final Order on Amendment #2, Final Order on Amendment #3, Final Order on 15 Amendment #4, and Final Order on Amendment #45. Such matters include, but are not 16 limited to: building code compliance, wage, hour and other labor regulations, local 17 government fees and charges and other design or operational issues that do not relate 18 to siting the facility (ORS 469.401(4)) and permits issued under statutes and rules for 19 which the decision on compliance has been delegated by the federal government to a 20 state agency other than the Council. 469.503(3). [ASC; AMD1; AMD2; AMD3; AMD4; 21 AMD5 22 (a) Both the State and the certificate holder shall abide by local ordinances, state law and 23 the rules of the Council in effect on the date this site certificate is executed. ORS 24 469.401(2). In addition, upon a clear showing of a significant threat to public health, 25 safety or the environment that requires application of later-adopted laws or rules, the 26 Council may require compliance with such later-adopted laws or rules. ORS 469.401(2). 27 (a) For a permit, license or other approval addressed in and governed by this site 28 certificate, the certificate holder shall comply with applicable state and federal laws 29 adopted in the future to the extent that such compliance is required under the 30 respective state agency statutes and rules. ORS 469.401(2). 31 (a) Subject to the conditions herein, this site certificate binds the State and all counties, 32 cities and political subdivisions in Oregon as to the approval of the site and the 33 construction, operation and retirement of the facility as to matters that are addressed in 34 and governed by this site certificate. ORS 469.401(3). 35 (a) Each affected state agency, county, city and political subdivision in Oregon with 36 authority to issue a permit, license or other approval addressed in or governed by this 37 site certificate shall, upon submission of the proper application and payment of the 38 proper fees, but without hearings or other proceedings, issue such permit, license or 39 other approval subject only to conditions set forth in this site certificate. ORS 40 469.401(3). MONTAGUE WIND POWEROREGON TRAIL SOLAR FACILITY 2 FOURTH AMENDED SITE CERTIFICATE - August 2019 -2020

- 1(a)After issuance of this site certificate, each state agency or local government agency that2issues a permit, license or other approval for the facility shall continue to exercise3enforcement authority over such permit, license or other approval. ORS 469.401(3).
- 4(a)After issuance of this site certificate, the Council shall have continuing authority over5the site and may inspect, or direct the Oregon Department of Energy (Department) to6inspect, or request another state agency or local government to inspect, the site at any7time in order to ensure that the facility is being operated consistently with the terms8and conditions of this site certificate. ORS 469.430.
- 9(a)Following the completion of surveys required by this site certificate, the Department will10present the results of those surveys and required consultations at the next regularly11scheduled Council meeting. [AMD2]
 - III. DESCRIPTION
- 12 **1.** The Facility
- 13 (a) The Energy Facility

14 The Montague Wind PowerOregon Trail Solar Facility is an electric power generating plant developed in 15 two phases, Phase 1 and Phase 2. Phase 1 consists of 56 approved to consist of a combination of up to 16 16 wind turbines, each consisting of a nacelle, a three-bladed rotor, turbine tower and foundations. The (he 17 nacelle houses the equipment such as the gearbox, generator, brakes, and control systems for the 18 turbines.

- 19 Phase 2 is approved to consist of a combination of up to 81 wind turbines), and a solar photovoltaic 20 array on up to 1,189228 acres. The solar array would be composed of solar modules, which are 21 themselves composed of either mono-crystalline or poly-crystalline cells. In addition to the solar 22 modules, the array would also include a tracker system to allow the solar modules to follow the path of 23 the sun throughout the day; cables; inverters; and transformers. The solar array would be connected to 24 the power collection system as described below. Within the solar micrositing area, solar photovoltaic 25 energy generation equipment could include modules consisting of solar panels, trackers, racks, posts, 26 inverter/transformer units and above- and belowground cabling. Solar panels would be supported by 27 galvanized steel posts, which would be hydraulically driven into the ground at a depth of 5 to 8 feet, 28 with an approximately 4 to 5.5-foot aboveground height. Solar panels would be designed with anti-29 reflective coating. Modules would be placed on non-specular metal galvanized steel racks, with heights 30 ranging from 4 to 15 feet at full tilt. To convert energy generated within the modules from alternating 31 current (ac) to direct current (dc), inverter/transformer units would be installed. Solar photovoltaic 32 energy generation equipment would be contained by an approximately 8-foot chain-link fence 33 extending around the perimeter. Access to solar facility components would be provided via two new 34 access points on the north side of Bottemiller Lane. The energy facility is described further in the Final 35 Order on the Application, Final Order on Amendment #1, Final Order on Amendment #2, Final Order on
- 36 Amendment #3, and the Final Order on Amendment #4.
- 37 (b) Related or Supporting Facilities

- 1 The facility includes the following related or supporting facilities described below and in greater detail in
- 2 the Final Order on the Application, Final Order on Amendment #1, Final Order on Amendment #2, Final
- 3 Order on Amendment #3, and the Final Order on Amendment #4:
- 4 Power collection system
 - Control system

7

8

9

- 6 SubstationsSubstation, switching station, and 230-kV transmission lines
 - Battery storage system
 - Meteorological towers
 - Operations and maintenance facilities(O&M) building
- 10 Access roads
- 11 Public roadway modifications
- 12 Temporary construction areas

13 **Power Collection System**

- 14 A power collection system operating at 34.5 kilovolts (kV) transports power from each turbine or the
- 15 <u>solar array</u> to athe collector substation. To the extent practicable, the collection system is installed
- 16 underground at a depth of at least three fed. Not more than 27 miles of the collector system is installed
- 17 aboveground.

18 Control System

- 19 A fiber optic communications network links the wind turbines and solar array to a central computer at
- 20 the Montague Solar O&M buildingsbuilding shared with the Montague Solar facility. A Supervisory,
- 21 Control and Data Acquisition (SCADA) system collects operating and performance data from each wind
- 22 turbine and from the facility as a whole and allows remote operation of the wind turbines<u>facility</u>.

23 <u>SubstationsSubstation, Switching Station, and 230-kV Transmission Lines</u>

- 24 The facility includes two collector substations, one associated. One substation ("Montague Wind
- 25 collector substation") is shared with Phase 1 the Montague Wind Power facility, and the second
- 26 associated with ("Phase 2. Montague Solar collector substation") is shared with the Montague Solar
- 27 <u>facility. The facility includes one switching station. An aboveground 34.5-kV collector line connects the</u>
- 28 <u>switching station to the Montague Solar collector substation.</u> An aboveground, single-circuit 230-kV
- 29 transmission line connects the Phase 2 Montague Solar collector substation to the Phase 1 Montague
- 30 <u>Wind collector</u> substation. An aboveground, single-circuit 230-kV transmission line connects the Phase
- 31 <u>**1**Montague Wind collector</u> substation to the 500-kV Slatt-Buckley transmission line owned by the
- 32 Bonneville Power Administration (BPA) at the Slatt substation.

33 Battery Storage

- 34 Phase 2<u>The facility</u> is approved to include a battery storage system <u>shared with the Montague Solar</u>
- 35 <u>facility</u>. The battery storage system would be capable of storing up to 100 MW of wind or solar energy
- 36 generated by the Facility, and would be used to stabilize the wind or solar resource through dispatching MONTAGUE WIND POWEROREGON TRAIL SOLAR FACILITY 4

FOURTH AMENDED SITE CERTIFICATE - August 2019 2020

- of energy stored in the battery system. The battery system is placed in a series of containers or building
 located near the <u>Phase 2Montague Solar collector</u> substation.
- The battery system would be composed of either lithium-ion (Li-ion) batteries or a flow battery. Lithiumion batteries are a solid-state rechargeable battery utilizing lithium ions in an electrolyte. Flow batteries are composed of a variety of different technologies; however, all flow batteries dispatch electricity by
- 6 allowing the migration of electrons from a positive ion tank to a negative ion tank. The electrons migrate
- 7 between solutions via a membrane.
- 8 The battery storage would occupy up to 6 acres and would include batteries and racks or containers,
- 9 inverters, isolation transformers, and switchboards, an approximately 20-foot warehouse-type building,
- 10 medium-voltage and low-voltage electrical systems, fire suppression, heating, ventilation, and air-
- 11 conditioning systems, building auxiliary electrical systems, and network/SCADA systems. Battery storage
- 12 would include a cooling system (more advanced systems required for Li-ion), which may include a
- 13 separate chiller plant located outside the battery racks with chillers, pumps, and heat exchangers. High-
- 14 voltage (HV) equipment would include a step-up transformer, HV circuit breaker, HV current
- 15 transformers and voltage transformers, a packaged control building for the HV breaker and transformer
- 16 equipment, HV towers, structures, and HV cabling. The battery storage area would be enclosed by
- 17 approximately 2,140 feet of continuous chain-link perimeter fencing 8 feet in height, with two 16-foot-
- 18 wide gates and one pedestrian, 4-foot-wide gate.19

20 Meteorological Towers

21 The facility includes up to <u>eightfour</u> permanent meteorological towers.

22 Operations and Maintenance FacilitiesBuilding

- 23 The facility includes two operations and maintenance (O&M) facilities, one associated O&M building
- 24 ("Phase 2 Montague Solar O&M building") shared with Phase 1 and the second with Phase 2. Montague
- 25 <u>Solar facility.</u> An on-site well at each the Montague Solar O&M facility supplies water for use during
- 26 facility operation. Sewage is discharged to an on-site septic system.

27 Access Roads

- 28 The facility includes access roads to provide access to the turbine strings, solar array, battery storage
- 29 system and other related or supporting components.

30 Public Roadway Modifications

- 31 The certificate holder may construct improvements to existing state and county public roads that are
- 32 necessary for construction of the facility. These modifications would be confined to the existing road
- rights-of-way and would be undertaken with the approval of the Gilliam County Road Department or the
- 34 Oregon Department of Transportation, depending on the location of the improvement.

35 <u>Temporary Construction Areas</u>

- 36 During construction, the facility includes temporary laydown areas used to stage construction and store
- 37 supplies and equipment. Construction crane paths are used to move construction cranes between38 turbine strings.

MONTAGUE WIND POWER<u>OREGON TRAIL SOLAR</u> FACILITY 5

1 (c) Shared Related or Supporting Facilities

2 The site certificates for the Oregon Trail Solar Facility, Montague Solar Facility, and Montague Wind 3 Power Facility were originally approved as one site certificate for the Montague Wind Power Facility 4 (September 2010 – September 2019). In XX 2020, facility components were split or allocated into three 5 separate site certificates, but identified that certain related or supporting facilities would be shared or 6 used by each facility. Sharing of facility components, or use by multiple facilities, is allowable in the EFSC 7 process when the compliance obligation and applicable regulatory requirements for the shared facilities 8 is adequately covered under each site certificate, including under normal operational circumstances, 9 ceasing/termination of operation, emergencies and compliance issues or violations. 10 11 The certificate holder is authorized to share related or supporting facilities between the Oregon Trail 12 Solar Facility, Montague Solar Facility and Montague Wind Power Facility including the Montague Wind 13 collector substation, 230 kV transmission line, temporary laydown areas, and access roads. The 14 certificate holder is authorized to share related or supporting facilities between the Montague Solar 15 Facility and Oregon Trail Solar Facility including the Montague Solar collector substation, 230 kV 16 transmission line, O&M building and battery storage. These related or supporting facilities are included 17 in each site certificate. Compliance responsibility with site certificate conditions and EFSC standards 18 which apply to these shared related or supporting facilities are shared between site certificates and 19 certificate holders. In accordance with Condition 118, if any certificate holder substantially modifies a 20 shared related or supporting facility or ceases facility operation, each certificate holder would be 21 obligated to submit an amendment determination request or request for amendment to the 22 Department to determine the appropriate process for evaluating the change and ensuring full regulatory 23 coverage under each site certificate, or remaining site certificate if either is terminated, in the future. 24 Additionally, each certificate holder is obligated to demonstrate to the Department that a legally binding 25 agreement has been fully executed between certificate holders to ensure approval and agreement of 26 access to the shared resources has been obtained prior to operation of shared facilities.

27 **2.** Location of the Facility

The facility is located south of Arlington, in Gilliam County, Oregon. The facility is located on private land
 subject to easements or lease agreements with landowners.

IV. CONDITIONS REQUIRED BY COUNCIL RULES

30 This section lists conditions required by OAR 345-025-0006 (Mandatory Conditions in Site Certificates),

31 OAR 345025-0010 (Site Specific Conditions), OAR 345-025-0016 (Monitoring and Mitigation Conditions)

32 and OAR Chapter 345, Division 26 (Construction and Operation Rules for Facilities). These conditions

33 should be read together with the specific facility conditions listed in Section V to ensure compliance with

34 the siting standards of OAR Chapter 345, Divisions 22 and 24, and to protect the public health and

35 safety. In these conditions the definitions in OAR 345-001-0010 apply.

- 36 The obligation of the certificate holder to report information to the Oregon Department of Energy
- 37 (Department) or the Council under the conditions listed in this section and in Section V is subject to the
- 38 provisions of ORS 192.502 et seq. and ORS 469.560. To the extent permitted by law, the Department
- 39 and the Council will not publicly disclose information that may be exempt from public disclosure if the
- 40 certificate holder has clearly labeled such information and stated the basis for the exemption at the time
- 41 of submitting the information to the Department or the Council. If the Council or the Department

MONTAGUE WIND POWEROREGON TRAIL SOLAR FACILITY

6

FOURTH AMENDED-SITE CERTIFICATE — August 2019 — 2020

- 1 receives a request for the disclosure of the information, the Council or the Department, as appropriate,
- 2 will make a reasonable attempt to notify the certificate holder and will refer the matter to the Attorney
- 3 General for a determination of whether the exemption is applicable, pursuant to ORS 192.450.
- 4 In addition to these conditions, the site certificate holder is subject to all conditions and requirements
- 5 contained in the rules of the Council and in local ordinances and state law in effect on the date the
- 6 certificate is executed. Under ORS 469.401(2), upon a clear showing of a significant threat to the public
- 7 health, safety or the environment that requires application of later-adopted laws or rules, the Council
- $8 \qquad {\rm may\ require\ compliance\ with\ such\ later-adopted\ laws\ or\ rules.}$
- 9 The Council recognizes that many specific tasks related to the design, construction, operation and
- 10 retirement of the facility will be undertaken by the certificate holder's agents or contractors.
- 11 Nevertheless, the certificate holder is responsible for ensuring compliance with all provisions of the site 12 certificate.
- 131OAR 345-025-0006(1): The Council shall not change the conditions of the site certificate except14as provided for in OAR Chapter 345, Division 27.
- 152OAR 345-025-0006(2): The certificate holder shall submit a legal description of the site to the16Department of Energy within 90 days after beginning operation of the facility. The legal17description required by this rule means a description of metes and bounds or a description of18the site by reference to a map and geographic data that clearly and specifically identifies the19outer boundaries that contain all parts of the facility.
- 203OAR 345-025-0006(3): The certificate holder shall design, construct, operate and retire the21facility:
- 22 (a) Substantially as described in the site certificate;
- 23(b)In compliance with the requirements of ORS Chapter 469, applicable Council rules, and24applicable state and local laws, rules and ordinances in effect at the time the site25certificate is issued; and (c) In compliance with all applicable permit requirements of26other state agencies.
- 274OAR 345-025-0006(4): The certificate holder shall begin and complete construction of the28facility by the dates specified in the site certificate. (See Conditions 24 and 25.)
- 29 <u>5</u> OAR 345025-0006(5): Except as necessary for the initial survey or as otherwise allowed for wind 30 energy facilities, transmission lines or pipelines under this section, the certificate holder shall 31 not begin construction, as defined in OAR 345-001-0010, or create a clearing on any part of the 32 site until the certificate holder has construction rights on all parts of the site. For the purpose of 33 this rule, "construction rights" means the legal right to engage in construction activities. For 34 wind energy facilities, transmission lines or pipelines, if the certificate holder does not have 35 construction rights on all parts of the site, the certificate holder may nevertheless begin 36 construction, as defined in OAR 345-001-0010, or create a clearing on a part of the site if the 37 certificate holder has construction rights on that part of the site and:
- 38(a)The certificate holder would construct and operate part of the facility on that part of the39site even if a change in the planned route of the transmission line or pipeline occurs
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1 during the certificate holder's negotiations to acquire construction rights on another 2 part of the site; or 3 (b) The certificate holder would construct and operate part of a wind energy facility on that 4 part of the site even if other parts of the facility were modified by amendment of the 5 site certificate or were not built. 6 OAR 345-025-0006(6): - If the certificate holder becomes aware of a significant environmental <u>6</u> 7 change or impact attributable to the facility, the certificate holder shall, as soon as possible, 8 submit a written report to the Department describing the impact on the facility and any affected 9 site certificate conditions. [AMD4AMD5] 10 7 OAR 345-025-0006(7): The certificate holder shall prevent the development of any conditions on 11 the site that would preclude restoration of the site to a useful, non-hazardous condition to the 12 extent that prevention of such site conditions is within the control of the certificate holder. 13 8 OAR 345-025-0006(8): Before beginning construction of the facility-or a phase of the facility, the 14 certificate holder shall submit to the State of Oregon, through the Council, a bond or letter of 15 credit, in a form and amount satisfactory to the Council to restore the site or a portion of the 16 site to a useful, non-hazardous condition. The certificate holder shall maintain a bond or letter 17 of credit in effect at all times until the facility or the phase of the facility has been retired. The 18 Council may specify different amounts for the bond or letter of credit during construction and 19 during operation of the facility or a phase of the facility. (See Condition 32.) [AMD4AMD5] 20 <u>9</u> OAR 345-025-0006(9): The certificate holder shall retire the facility if the certificate holder 21 permanently ceases construction or operation of the facility. The certificate holder shall retire 22 the facility according to a final retirement plan approved by the Council, as described in OAR 23 345-027-0110. The certificate holder shall pay the actual cost to restore the site to a useful, non-24 hazardous condition at the time of retirement, notwithstanding the Council's approval in the 25 site certificate of an estimated amount required to restore the site. 26 10 OAR 345-025-0006(10): The Council shall include as conditions in the site certificate all 27 representations in the site certificate application and supporting record the Council deems to be 28 binding commitments made by the applicant. 29 OAR 345-025-0006(11): Upon completion of construction, the certificate holder shall restore <u>11</u> 30 vegetation to the extent practicable and shall landscape all areas disturbed by construction in a 31 manner compatible with the surroundings and proposed use. Upon completion of construction, 32 the certificate holder shall remove all temporary structures not required for facility operation 33 and dispose of all timber, brush, refuse and flammable or combustible material resulting from 34 clearing of land and construction of the facility. 35 12 OAR 345-025-0006(12): The certificate holder shall design, engineer and construct the facility to 36 avoid dangers to human safety and the environment presented by seismic hazards affecting the 37 site that are expected to result from all maximum probable seismic events. As used in this rule 38 "seismic hazard" includes ground shaking, ground failure, landslide, liquefaction triggering and 39 consequences (including flow failure, settlement buoyancy, and lateral spreading, cyclic 40 softening of clays and silts, fault rupture, directivity effects and soil-structure interaction. For MONTAGUE WIND POWEROREGON TRAIL SOLAR FACILITY

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- coastal sites, this also includes tsunami hazards and seismically-induced subsidence.
 [AMD4AMD5]
- 313OAR 345-025-0006(13): The certificate holder shall notify the Department, the State Building4Codes Division and the Department of Geology and Mineral Industries promptly if site5investigations or trenching reveal that conditions in the foundation rocks differ significantly6from those described in the application for a site certificate. After the Department receives the7notice, the Council may require the certificate holder to consult with the Department of Geology8and Mineral Industries and the Building Codes Division to propose and implement corrective or9mitigation actions.
- 1014OAR 345-025-0006(14): The certificate holder shall notify the Department, the State Building11Codes Division and the Department of Geology and Mineral Industries promptly if shear zones,12artesian aquifers, deformations or clastic dikes are found at or in the vicinity of the site. After13the Department receives notice, the Council may require the certificate holder to consult with14the Department of Geology and Mineral Industries and the Building Codes Division to propose15and implement corrective or mitigation actions. [AMD4AMD5]
- 1615OAR 345-025-0006(15): Before any transfer of ownership of the facility or ownership of the site17certificate holder, the certificate holder shall inform the Department of the proposed new18owners. The requirements of OAR 345-027-0100 apply to any transfer of ownership that19requires a transfer of the site certificate.
- 20 16 OAR 345-025-0006(16): If the Council finds that the certificate holder has permanently ceased 21 construction or operation of the facility without retiring the facility according to a final 22 retirement plan approved by the Council, as described in OAR 345-027-0110, the Council shall 23 notify the certificate holder and request that the certificate holder submit a proposed final 24 retirement plan to the Department within a reasonable time not to exceed 90 days. If the 25 certificate holder does not submit a proposed final retirement plan by the specified date, the 26 Council may direct the Department to prepare a proposed final retirement plan for the Council's 27 approval. Upon the Council's approval of the final retirement plan, the Council may draw on the 28 bond or letter of credit described in OAR 345-027-0020(8) to restore the site to a useful, non-29 hazardous condition according to the final retirement plan, in addition to any penalties the 30 Council may impose under OAR Chapter 345, Division 29. If the amount of the bond or letter of 31 credit is insufficient to pay the actual cost of retirement, the certificate holder shall pay any 32 additional cost necessary to restore the site to a useful, non-hazardous condition. After 33 completion of site restoration, the Council shall issue an order to terminate the site certificate if 34 the Council finds that the facility has been retired according to the approved final retirement 35 plan.
- 36 <u>17</u> <u>OAR 35-027-0023(4)</u>:
- 37 (a) The certificate holder shall design, construct and operate the transmission line in accordance
 38 with the requirements of the National Electrical Safety Code approved on June 3, 2011, by the
 39 American National Standards Institute, and
- 40 (b) The certificate holder shall develop and implement a program that provides reasonable
 41 assurance that all fences, gates, cattle guards, trailers, or other objects or structures of a
- permanent nature that could become inadvertently charged with electricity are grounded or
 bonded throughout the life of the line. [Amendment 3, Removed by Amendment 4]
- 318OAR 345-025-0010(5): The certificate holder is authorized to construct a 230 kV transmission4line anywhere within the approved corridor, subject to the conditions of the site certificate. The5approved corridor is ½-mile in width and extends approximately 14 miles from the Phase62Montague Solar collector substation to the Phase 1Montague Wind collector substation to7BPA's Slatt Substation as presented in Figure 1 of the site certificate.8[OAR 345-025-0010(5); ASC; AMD4]
- 9 <u>19</u> <u>OAR 345-025-0016</u>: The following general monitoring conditions apply:
- (1) In the site certificate, the Council shall include conditions that address monitoring and
 mitigation to ensure compliance with the standards contained in OAR Chapter 345, Division 22
 and Division 24. The site certificate applicant, or for an amendment, the certificate holder, shall
 develop proposed monitoring and mitigation plans in consultation with the Department and, as
 appropriate, other state agencies, local governments and tribes. Monitoring and mitigation
 plans are subject to Council approval. The Council shall incorporate approved monitoring and
 mitigation plans in applicable site certificate conditions. -[AMD4[AMD5]
- 17 20 OAR 345-026-0048: Following receipt of the site certificate or an amended site certificate, the 18 certificate holder shall implement a plan that verifies compliance with all site certificate terms 19 and conditions and applicable statutes and rules. As a part of the compliance plan, to verify 20 compliance with the requirement to begin construction by the date specified in the site 21 certificate, the certificate holder shall report promptly to the Department of Energy when 22 construction begins. Construction is defined in OAR 345-001-0010. In reporting the beginning of 23 construction, the certificate holder shall describe all work on the site performed before 24 beginning construction, including work performed before the Council issued the site certificate, 25 and shall state the cost of that work. For the purpose of this exhibit, "work on the site" means 26 any work within a site or corridor, other than surveying, exploration or other activities to define 27 or characterize the site or corridor. The certificate holder shall document the compliance plan 28 and maintain it for inspection by the Department or the Council.
- 29 <u>21</u> <u>OAR 345-026-008</u>0: The certificate holder shall report according to the following requirements:
- 30
 - (a) General reporting obligation for energy facilities under construction or operating:
- 31 (i) Within six months after beginning construction, and every six months thereafter 32 during construction of the energy facility and related or supporting facilities, the 33 certificate holder shall submit a semiannual construction progress report to the 34 Department of Energy. In each construction progress report, the certificate holder 35 shall describe any significant changes to major milestones for construction. The 36 certificate holder shall report on the progress of construction and shall address the 37 subjects listed in subsections (2)(a), (d), (f) and (g). When the reporting date 38 coincides, the certificate holder may include the construction progress report within 39 the annual report described in this rule.
- 40 41
- (ii) After January 1 but no later than April 30 of each year after beginning operation of the facility, the certificate holder shall submit an annual report to the Department MONTAGUE WIND POWEROREGON TRAIL SOLAR FACILITY

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1	addressing the subjects listed in Subsection (2). For the purposes of this rule, the
2	beginning of operation of the facility means the date when construction of a
3	significant portion of the facility is substantially complete and the certificate holder
4	begins commercial operation of the facility as reported by the certificate holder and
5	accepted by the Department. The Council Secretary and the certificate holder may,
6	by mutual agreement, change the reporting date.
7	(iii) To the extent that information required by this rule is contained in reports the
8	certificate holder submits to other state, federal or local agencies, the certificate
9	holder may submit excerpts from such other reports to satisfy this rule. The Council
10	reserves the right to request full copies of such excerpted reports
11 12	(b) In the annual report, the certificate holder shall include the following information for the calendar year preceding the date of the report:
13	(i) Facility Status: An overview of site conditions, the status of facilities under
14	construction and a summary of the operating experience of facilities that are in
15	operation. The certificate holder shall describe any unusual events, such as
16	earthquakes, extraordinary windstorms, major accidents or the like that occurred
17	during the year and that had a significant adverse impact on the facility.
18	(ii) Reliability and Efficiency of Power Production: For electric power plants, the plant
19	availability and capacity factors for the reporting year. The certificate holder shall
20	describe any equipment failures or plant breakdowns that had a significant impact on
21	those factors and shall describe any actions taken to prevent the recurrence of such
22	problems.
23 24 25	(iii) Status of Surety Information: Documentation demonstrating that bonds or letters of credit as described in the site certificate are in full force and effect and will remain in full force and effect for the term of the next reporting period.
26	(iv) Monitoring Report: A list and description of all significant monitoring and mitigation
27	activities performed during the previous year in accordance with site certificate terms
28	and conditions, a summary of the results of those activities and a discussion of any
29	significant changes to any monitoring or mitigation program, including the reason for
30	any such changes.
31	(v) Compliance Report: A description of all instances of noncompliance with a site
32	certificate condition. For ease of review, the certificate holder shall, in this section of
33	the report, use numbered subparagraphs corresponding to the applicable sections of
34	the site certificate.
35 36 37	(vi) Facility Modification Report: A summary of changes to the facility that the certificate holder has determined do not require a site certificate amendment in accordance with OAR 345-027-0050.
38	(vii)

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- 122OAR 345-026-0105: The certificate holder and the Department of Energy shall exchange copies2of all correspondence or summaries of correspondence related to compliance with statutes,3rules and local ordinances on which the Council determined compliance, except for material4withheld from public disclosure under state or federal law or under Council rules. The certificate5holder may submit abstracts of reports in place of full reports; however, the certificate holder6shall provide full copies of abstracted reports and any summarized correspondence at the7request of the Department.
- 8 23 OAR 345-026-0170: The certificate holder shall notify the Department of Energy within 72 hours
 9 of any occurrence involving the facility if:
- 10 (a) There is an attempt by anyone to interfere with its safe operation;
- 11(b)A natural event such as an earthquake, flood, tsunami or tornado, or a human-caused12event such as a fire or explosion affects or threatens to affect the public health and13safety or the environment; or
- 14 (c) There is any fatal injury at the facility.

V. SPECIFIC FACILITY CONDITIONS

- 15 The conditions listed in this section include conditions based on representations in the site certificate
- 16 application and supporting record. The Council deems these representations to be binding
- 17 commitments made by the applicant. These conditions are required under OAR 345-025-0006.
- 18 The certificate holder must comply with these conditions in addition to the conditions listed in
- 19 Section IV. This section includes other specific facility conditions the Council finds necessary to ensure
- 20 compliance with the siting standards of OAR Chapter 345, Divisions 22 and 24, and to protect public
- 21 health and safety. For conditions that require subsequent review and approval of a future action, ORS
- 469.402 authorizes the Council to delegate the future review and approval to the Department if, in the
- 23 Council's discretion, the delegation is warranted under the circumstances of the case.
- 24 **1.** Certificate Administration Conditions
- 25 <u>24</u> The certificate holder shall:
- i. Begin construction of Phase 1 of the facility by September 14, 2017. Under OAR 345-015 0085(9), a site certificate is effective upon execution by the Council Chair and the applicant.
 The Council may grant an extension of the deadline to begin construction in accordance with
 OAR 345-027-0385 or any successor rule in effect at the time the request for extension is
 submitted. [ASC; AMD2; AMD4]
- Begin construction of Phase 2 begin construction of the facility by August 30, 2022. The Council may
 grant an extension of the deadline to begin construction in accordance with OAR 345-027-0385
 or any successor rule in effect at the time the request for extension is submitted. [AMD4AMD5]
- 35 <u>25</u> The certificate holder shall:
- 36 Complete complete construction of Phase 1 of the facility by September 14, 2020.[3 years of from the
 37 date of construction commencement]. Construction is complete when: (1) the facility is

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1 2 3 4 5 6 7		substantially complete as defined by the certificate holder's construction contract documents, (2) acceptance testing has been satisfactorily completed and (3) the energy facility is ready to begin continuous operation consistent with the site certificate. The certificate holder shall promptly notify the Department of the date of completion of construction. The Council may grant an extension of the deadline for completing construction in accordance with OAR 345-027-0385 or any successor rule in effect at the time the request for extension is submitted. [ASC; AMD2; AMD4[AMD5]
8 9 10 11 12 13 14 15	i	Complete construction of Phase 2 of the facility by [3 years of from the date of construction commencement]. Construction is complete when: (1) the facility is substantially complete as defined by the certificate holder's construction contract documents, (2) acceptance testing has been satisfactorily completed and (3) the energy facility is ready to begin continuous operation consistent with the site certificate. The certificate holder shall promptly notify the Department of the date of completion of construction. The Council may grant an extension of the deadline for completing construction in accordance with OAR 345-027-0385 or any successor rule in effect at the time the request for extension is submitted. [AMD4]
16 17 18 19	<u>26</u>	Before beginning construction of the facility, the certificate holder shall notify the Department whether the turbines identified as H1, H2, H3, H4, L8, L9, L10, L11 and L12 on Figure C-3a of the site certificate application will be built as part of the Montague Wind Power Facility or whether the turbines will be built as part of the Leaning Juniper II Wind Power Facility.
20 21 22 23 24	<u>27</u>	The certificate holder shall construct a facility substantially as described in the site certificate and may select turbines of any type, subject to the following restrictions and compliance with all other site certificate conditions. Before beginning construction, the certificate holder shall provide to the Department a description of the turbine types selected for the facility demonstrating compliance with this condition.
25 26 27 28 29 30 31	i.	 For Phase 1-facility components: (a) The total number of turbines must not exceed 81 turbines. (b) The turbine hub height must not exceed 100 meters and the maximum blade tip height must not exceed 150 meters. (c) The minimum blade tip clearance must be 14 meters above ground. [Amendment #3]
32 33 34 35 36 37	ii. -	 For Phase 2 facility components: (a) Components may include any combination of wind and solar energy generation equipment, up to 8116 wind turbines or the maximum layout (including number and size) of solar array components substantially as described in RFA4. (b) The maximum blade tip height must not exceed 597 feet (182 meters). The minimum aboveground blade tip clearance must be 46 feet (14 meters).
38		[Final Order on ASC; AMD3; AMD4; AMD5]
39 40 41	<u>28</u>	The certificate holder shall obtain all necessary federal, state and local permits or approvals required for construction, operation and retirement of the facility or ensure that its contractors obtain the necessary federal, state and local permits or approvals.
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1 2 3 4 5 6 7 8 9 10 11 12 13	<u>29</u>	 The certificate holder shall: Before beginning construction-of each phase of the facility, provide to the Department a list of all third-party permits which would normally be governed by the site certificate and that are necessary for construction (e.g. Air Contaminant Discharge Permit; Limited Water Use License). Once obtained, the certificate holder shall provide copies of third-party permits to the Department and Gilliam County-and shall provide to the Department proof of agreements between the certificate holder and the third-party regarding access to the resources or services secured by the permits or approvals. Buring construction and operation, promptly report to the Department if any third-party permits referenced in sub(i) of this condition have been subject to a cited violation, Notice of Violation, or allegation of a violation. [AMD4AMD5] 		
14 15 16 17 18	<u>30</u>	Before beginning construction, the certificate holder shall notify the Department in advance of any work on the site that does not meet the definition of "construction" in ORS 469.300, excluding surveying, exploration or other activities to define or characterize the site, and shall provide to the Department a description of the work and evidence that its value is less than \$250,000.		
19 20 21 22 23 24 25 26 27 28 29 30 31	<u>31</u>	Before beginning construction but no more than two years before beginning construction and after considering all micrositing factors, the certificate holder shall provide to the Department, to the Oregon Department of Fish and Wildlife (ODFW) and to the Planning Director of Gilliam County detailed maps of the facility site, showing the final locations where the certificate holder proposes to build facility components, and a table showing the acres of temporary and permanent habitat impact by habitat category and subtype, similar to Table 6 in the Final Order on the Application. The detailed maps of the facility site shall indicate the habitat categories of all areas that would be affected during construction (similar to Figures P- 8a through8 and P-8d9 in the site certificate application <u>RFA4</u>). In classifying the affected habitat into habitat categories, the certificate holder shall consult with the ODFW. The certificate holder shall not begin ground disturbance in an affected area until the habitat assessment has been approved by the Department. The Department may employ a qualified contractor to confirm the habitat assessment by on-site inspection.		
32 33 34 35 36 37 38	<u>32</u>	i. Before beginning construction of Phase 1 of the facility, the certificate holder shall submit to the State of Oregon through the Council a bond or letter of credit in the amount described herein naming the State of Oregon, acting by and through the Council, as beneficiary or payee. The initial bond or letter of credit is either \$21.511 million (3 rd Quarter 2010 dollars), to be adjusted to the date of issuance as described in (b), or the amount determined as described in (a). The certificate holder shall adjust the amount of the bond or letter of credit on an annual basis thereafter as described in (b).		
39 40 41 42 43 44		a. The certificate holder may adjust the amount of the bond or letter of credit based on the final design configuration of the facility and turbine types selected by applying the unit costs and general costs illustrated in Table 2 in the <i>Final Order on</i> <i>the Application</i> and calculating the financial assurance amount as described in that order, adjusted to the date of issuance as described in (b) and subject to approval by the Department.		
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1	i. Adjust the Subtotal component of the bond or letter of credit amount
2	(expressed in 3 rd -Quarter 2017 dollars) to present value, using the U.S. Gross
3	Domestic Product Implicit Price Deflator, Chain-Weight, as published in the
4	Oregon Department of Administrative Services' "Oregon Economic and
5	Revenue Forecast" or by any successor agency (the "Index") and using the
6	3 rd -Quarter 2017 index values (to represent mid-2004 dollars) and the
7	quarterly index value for the date of issuance of the new bond or letter of
8	credit. If at any time the Index is no longer published, the Council shall
9	select a comparable calculation to adjust mid-2004 dollars to present value.
10 11	ii.—Add 1 percent of the adjusted Subtotal (i) for the adjusted performance bond amount to determine the adjusted Gross Cost.
12	iii. Add 10 percent of the adjusted Gross Cost (ii) for the adjusted
13	administration and project management costs and 10 percent of the
14	adjusted Gross Cost (ii) for the adjusted future developments contingency.
15	iv.—Add the adjusted Gross Cost (ii) to the sum of the percentages (iii) and
16	round the resulting total to the nearest \$1,000 to determine the adjusted
17	financial assurance amount.
18	b. The certificate holder shall adjust the amount of the bond or letter of credit, using
19	the following calculation and subject to approval by the Department:
20	c.—The certificate holder shall use a form of bond or letter of credit approved by the
21	Council.
22	d.—The certificate holder shall use an issuer of the bond or letter of credit approved by
23	the Council.
24 25	e. The certificate holder shall describe the status of the bond or letter of credit in the annual report submitted to the Council under Condition 21.
26	f.—The bond or letter of credit shall not be subject to revocation or reduction before
27	retirement of the facility site.
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	 ii.j. Before beginning construction of Phase 2 of the facility, the certificate holder shall submit to the State of Oregon through the Council a bond or letter of credit in the amount described herein naming the State of Oregon, acting by and through the Council, as beneficiary or payee. The bond or letter of credit will be issued for Phase 2 inThe bond or letter of credit will be issued for an amount that is either \$10.4293.1 million (1st Quarter 2019 dollars), to be adjusted to the date of issuance as described in (b), or the amount determined as described in (a). The certificate holder shall adjust the amount of the bond or letter of credit on an annual basis thereafter as described in (b). a. The certificate holder may adjust the amount of the bond or letter of credit based on the final design configuration of the facility, and both the-battery storage or turbine types selected by applying the unit costs and general costs illustrated in Table 5 of the <i>Final Order on Amendment 4</i> and calculating the financial assurance amount as described in that order, adjusted to the date of issuance as described in that order and calculating the financial assurance amount of the bond or letter of issuance as described in (b) and subject to approval by the Department. The certificate holder may adjust the amount of the bond or letter of issuance as described in (b) and subject to approval by the Department. The certificate holder may adjust the amount of the bond or letter of on the facility of the facility.

1	b. The certificate holder shall adjust the amount of the bond or letter of credit, using
2	the following calculation and subject to approval by the Department:
3	i. Adjust the Subtotal component of the bond or letter of credit amount
4	(expressed in mid-2004 dollars1st Qtr 2019 dollars) to present value, using
5	the U.S. Gross Domestic Product Implicit Price Deflator, Chain-Weight, as
6	published in the Oregon Department of Administrative Services' "Oregon
7	Economic and Revenue Forecast" or by any successor agency (the "Index")
8	and using the average of the ^{2nd} -1st Quarter and ^{3rd} -2 nd Quarter-2004-2019
9	index values (to represent mid-2004-2019 dollars) -and the quarterly index
10	value for the date of issuance of the new bond or letter of credit. If at any
11	time the Index is no longer published, the Council shall select a comparable
12	calculation to adjust mid-2004-2019 dollars to present value.
13	c. The certificate holder shall adjust the amount of the bond or letter of credit, using
14	the following calculation and subject to approval by the Department:
15	i. Adjust the Subtotal component of the bond or letter of credit amount
16	(expressed in mid-2004-2019 dollars) to present value, using the U.S. Gross
17	Domestic Product Implicit Price Deflator, Chain-Weight, as published in the
18	Oregon Department of Administrative Services' "Oregon Economic and
19	Revenue Forecast" or by any successor agency (the "Index") and using the
20	average of the 2 nd Quarter and 3 rd Quarter 2004index2004 2019 index values
21	(to represent mid-2004 dollars) and the guarterly index value for the date of
22	issuance of the new bond or letter of credit. If at any time the Index is no
$\frac{-}{23}$	longer published, the Council shall select a comparable calculation to adjust
24	mid-2004-2019 dollars to present value.
25	ii. Add 1 percent of the adjusted Subtotal (i) for the adjusted performance
26	bond amount to determine the adjusted Gross Cost.
27	iii. Add 10 percent of the adjusted Gross Cost (ii) for the adjusted
28	administration and project management costs, add 20 percent of the
29	adjusted Gross Cost of the Solar Generation and Battery Storage System (ii)
30	and 10 percent of the adjusted Gross Cost of all other facility components(ii)
31	for the adjusted future developments contingency.
32	iv. Add the adjusted Gross Cost (ii) to the sum of the percentages (iii) and
33	round the resulting total to the nearest \$1,000 to determine the adjusted
34	financial assurance amount.
35	d. The certificate holder shall use a form of bond or letter of credit approved by the
36	Council.
37	e. The certificate holder shall use an issuer of the bond or letter of credit approved by
38	the Council.
39	f. The certificate holder shall describe the status of the bond or letter of credit in the
40	annual report submitted to the Council under Condition 21.
41	g. The bond or letter of credit shall not be subject to revocation or reduction before
42	retirement of the facility site.
43	[AMD4AMD5]
44	
45	33 If the certificate holder elects to use a bond to meet the requirements of Condition 32, the
46	certificate holder shall ensure that the surety is obligated to comply with the requirements of
47	applicable statutes, Council rules and this site certificate when the surety exercises any legal or
48	contractual right it may have to assume construction, operation or retirement of the energy
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- facility. The certificate holder shall also ensure that the surety is obligated to notify the Council
 that it is exercising such rights and to obtain any Council approvals required by applicable
 statutes, Council rules and this site certificate before the surety commences any activity to
 complete construction, operate or retire the energy facility.
- 534Before beginning construction, the certificate holder shall notify the Department of the identity6and qualifications of the major design, engineering and construction contractor(s) for the7facility. The certificate holder shall select contractors that have substantial experience in the8design, engineering and construction of similar facilities. The certificate holder shall report to9the Department any change of major contractors.
- 1035The certificate holder shall contractually require all construction contractors and subcontractors11involved in the construction of the facility to comply with all applicable laws and regulations and12with the terms and conditions of the site certificate. Such contractual provisions shall not13operate to relieve the certificate holder of responsibility under the site certificate.
- 1436To ensure compliance with all site certificate conditions during construction, the certificate15holder shall have a full-time, on-site assistant construction manager who is qualified in16environmental compliance. The certificate holder shall notify the Department of the name,17telephone number and e-mail address of this person.
- 1837Within 72 hours after discovery of conditions or circumstances that may violate the terms or19conditions of the site certificate, the certificate holder shall report the conditions or20circumstances to the Department.

21 2. Land Use Conditions

- 22 <u>38</u> The certificate holder shall:
- 23 i. <u>Consult consult</u> with area landowners and lessees during construction and operation-of
 24 <u>Phase 1 of the facility and implement measures to reduce and avoid any adverse impacts to</u>
 25 farm practices on surrounding lands and to avoid any increase in farming costs.
- Consult with area landowners and lessees during construction and operation of Phase 2 of the facility
 and implement measures to reduce and avoid any adverse impacts to ongoing farm practices on
 surrounding lands, including coordination with the landowner of the solar micrositing area to
 ensure that the final solar array layout does not prevent the landowner from maximizing
 agricultural production on the land not occupied by the solar array.
- 32 [Final Order on ASC; AMD4AMD5]
- 33 <u>39</u> The certificate holder shall design and construct:
- 34 i. Phase 1 of the facility using the minimum land area necessary for safe construction and 35 operation. The certificate holder shall locate access roads and temporary construction 36 laydown and staging areas to minimize disturbance of farming practices and, wherever 37 feasible, shall place turbines and transmission interconnection lines along the margins of 38 cultivated areas to reduce the potential for conflict with farm operations. [Final Order on 39 ASC; AMD4]
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1 2 3 4 5	Phase 2 of the facility to minimize the permanent impacts to agricultural land, including to th practicable, using existing access roads, co-locating facilities, reducing road and transmine/collector line lengths, and designing facility components to allow ongoing access agricultural fields. [Final Order on ASC; AMD4AMD5]				
6 7 8	<u>40</u>	The certificate holder shall install gates on private access roads in accordance with Gilliam County Zoning Ordinance Section 7.020(T)(4)(d)(6) unless the County has granted a variance this requirement.			
9 10 11	<u>41</u>	Before beginning construction of the facility, the certificate holder shall record in the real property records of Gilliam County a Covenant Not to Sue with regard to generally accepted farming practices on adjacent farmland consistent with GCZO Section 37 7.020(T)(4)(a)(5).			
12 13	<u>42</u>	The certificate holder shall construct all facility components in compliance with the following setback requirements:			
14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37		 (a) All facility components must be at least 3,520 feet from the property line of properties zoned residential use or designated in the Gilliam County Comprehensive Plan as residential. (b) Where (a) does not apply, the certificate holder shall maintain a minimum distance of 110-percent of maximum blade tip height, measured from the centerline of the turbine tower to the nearest edge of any public road right-of-way. The certificate holder shall assume a minimum right-of-way width of 60 feet. (c) Where (a) does not apply, the certificate holder shall maintain a minimum distance of 1,320 feet, measured from the centerline of the turbine tower to the center of the nearest residence existing at the time of tower construction. (d) Where (a) does not apply, the certificate holder's lease area. (e) The certificate holder shall maintain a minimum distance of 110-percent of maximum blade tip height, measured from the centerline of the turbine tower to the nearest boundary of the certificate holder's lease area. (e) The certificate holder shall maintain a minimum distance of 250 feet measured from the center line of each turbine tower to the nearest edge of any public road right-of-way or electrical substation. (f) The certificate holder shall maintain a minimum distance of 50 feet measured from the center line of each meteorological tower to the nearest edge of any public road right-of-way or railroad right-of-way, the nearest boundary of the certificate holder's lease area or the nearest electrical substation. (g) The certificate holder shall maintain a minimum distance of 50 feet measured from any facilitythe Montague Solar O&M building to the nearest edge of any public road right-of-way or railroad right-of-way or the nearest boundary of the certificate holder's lease area. (h) The certificate holder shall maintain a minimum distance of 50 feet measured from any facilitythe Montague Solar O&M building to the nearest edge of any public ro			
38 39 40 41 42 43 44		 nearest boundary of the certificate holder's electrical substation easement or, if there is no easement, the nearest boundary of the certificate holder's lease area. (i) Where (a) does not apply, the certificate holder shall maintain a minimum of 110 percent of maximum blade tip height, measured from the centerline of the turbine tower from any overhead utility line. [Amendment #1] (j) Where (a) does not apply, the certificate holder shall maintain a minimum of 150 percent of maximum turbine height from blade tip height, measured from the centerline of the turbine of the turbine 			
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$\frac{1}{2}$		tower from federal transmission lines, unless the affected parties agree otherwise. [Amendment #1]
- 3 4		(k) The certificate holder shall maintain a minimum distance of 25 feet measured from the fence line of the solar array to the nearest property line
5		(I) The certificate holder shall maintain a minimum distance of 25 feet measured from the
6		front, rear and side yard of the battery storage system site to the nearest property line.
7		(m) For Phase 2 facility components, all wind Wind turbines must be setback a minimum
8		distance of 656 feet (200 meters), measured from the centerline of the turbine tower to the
9		nearest edge of the breaks of Rock Creek Canyon. [AMD4AMD5]
10		
11	43	During construction and operation of the facility, the certificate holder shall implement a weed
12		control plan approved by the Gilliam County Weed Control Officer or other appropriate County
13		officials to control the introduction and spread of noxious weeds.
14	44	During operation of the facility, the certificate holder shall restore areas that are temporarily
15		disturbed during facility maintenance or repair activities using the same methods and
16		monitoring procedures described in the Revegetation Plan referenced in Condition 92.
17	45	Within 90 days after beginning operation of the facility or a phase of the facility, the certificate
18		holder shall provide to the Department and to the Gilliam County Planning Department the
19		actual latitude and longitude location or Stateplane NAD 83(91) coordinates of each turbine
20		tower, connecting lines and transmission lines and a summary of as-built changes in the facility
21		compared to the original plan.
22	<u>46</u>	The certificate holder shall deliver a copy of the annual report required under Condition 21 to
23		the Gilliam County Planning Commission on an annual basis unless specifically discontinued by
24		the County.
25	3. C	ultural Resource Conditions
26	<u>47</u>	Before beginning construction, the certificate holder shall:
27		(a) Label all identified historic, cultural or archeological resource sites on construction maps and
28		drawings as "no entry" areas. If construction activities will occur within 200 feet of an
29		identified site, the certificate holder shall flag a 30-meter no entry buffer around the site. The
30 21		certificate holder may use existing private roads within the buffer areas but may not widen or
31		nuplic road rights of way within the buffer areas or to operational farmsteads. [Einal Order
33		on ASCI
34		(b) Submit for review and approval by the Department in consultation with the State Historic
35		Preservation Office, a final Phase 2-Historical Resource Mitigation Plan (HRMP), based on the
36		draft HRMP provided in Attachment H of the Final Order on Request for Amendment 4 <u>5</u> . The
37		final HRMP shall include the following:
38		i. Confirmation on established setback of Phase 2 facility components to the
39		Weatherford Barn, if confirmed by the Department and SHPO to represent a
40		distance whereby indirect impacts to setting and feeling would be minimized to less
41		than significant. In the alternative, the certificate holder shall specify the mitigation

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19 20 21	<u>48</u>	In ref Applic	erence to the alignment of the Oregon Trail described in the Final Order on the cation, the certificate holder shall comply with the following requirements:		
22 23		(d)	The certificate holder shall not locate facility components on visible remnants of the Oregon Trail and shall avoid any construction disturbance to those remnants.		
24 25		(e)	The certificate holder shall not locate facility components on undeveloped land where the trail alignment is marked by existing Oregon-California Trail Association markers.		
26 27 28		(f)	Before beginning construction, the certificate holder shall provide to the State Historic Preservation Office (SHPO) and the Department documentation of the presumed Oregon Trail alignments within the site boundary.		
29 30 31 32 33 34 35 36		(g)	The certificate holder shall ensure that construction personnel proceed carefully in the vicinity of the presumed alignments of the Oregon Trail. If any physical evidence of the trail is discovered, the certificate holder shall avoid any disturbance to the intact segments by redesign, re-engineering or restricting the area of construction activity and shall flag a 30-meter no-entry buffer around the intact Trail segmentsThe certificate holder shall promptly notify the SHPO and the Department of the discovery. The certificate holder shall consult with the SHPO and the Department to determine appropriate mitigation measures.		
37 38 39 40 41 42 43	<u>49</u>	Before showi tempo descri perso outsic the fie	e beginning construction, the certificate holder shall provide to the Department a map ing the final design locations of all components of the facility, the areas that would be orarily disturbed during construction and the areas that were surveyed in 2009 as ibed in the Final Order on the Application. The certificate holder shall hire qualified nnel to conduct field investigations of all areas to be disturbed during construction that lie de the previously-surveyed areas. The certificate holder shall provide a written report of eld investigations to the Department and to the Oregon State Historic Preservation Office		
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1 (SHPO) for review and approval. If any potentially significant historic, cultural or archaeological 2 resources are found during the field investigation, the certificate holder shall instruct all 3 construction personnel to avoid the identified sites and shall implement appropriate measures 4 to protect the sites, including the measures described in Condition 47.

- 5 50 During construction, the certificate holder shall:
 - (a) Ensure that a qualified archeologist, as defined in OAR 736-051-0070, instructs construction personnel in the identification of cultural materials and avoidance of accidental damage to identified resource site.
- 9 (b) Employ a qualified cultural resource monitor to conduct monitoring of ground disturbance 10 at depths of 12 inches or greater. The qualifications of the selected cultural resources monitor shall be reviewed and approved by the Department, in consultation with the CTUIR 12 Cultural Resources Protection Program. In the selection of the cultural resources monitor to 13 be employed during construction, preference shall be given to citizens of the CTUIR. Ground 14 disturbance at depths 12 inches or greater shall not occur without the presence of the 15 approved cultural resources monitor. If any cultural resources are identified during 16 monitoring activities, the steps outlined in the Inadvertent Discovery Plan, as provided in 17 Attachment H of the Final Order on Amendment 4 should be followed. The certificate holder 18 shall report to the Department in its semi-annual report a description of the ground 19 disturbing activities that occurred during the reporting period, dates cultural monitoring 20 occurred, and shall include copies of monitoring forms completed by the cultural resource monitor. [AMD4AMD5]
- 22 51 The certificate holder shall ensure that construction personnel cease all ground-disturbing 23 activities in the immediate area if any archaeological or cultural resources are found during 24 construction of the facility until a qualified archaeologist can evaluate the significance of the 25 find. The certificate holder shall notify the Department and the Oregon State Historic 26 Preservation Office (SHPO) of the find. If the SHPO determines that the resource is significant, 27 the certificate holder shall make recommendations to the Council for mitigation, including 28 avoidance, field documentation and data recovery, in consultation with the Department, SHPO, 29 interested Tribes and other appropriate parties. -The certificate holder shall not restart work in 30 the affected area until the certificate holder has demonstrated to the Department and the SHPO 31 that it has complied with archaeological resource protection regulations
- 32 4. Geotechnical Conditions
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- 34 52 Before beginning construction of each phase of the facility, the certificate holder shall conduct a 35 site-specific geotechnical investigation and shall report its findings to the Oregon Department of 36 Geology & Mineral Industries (DOGAMI) and the Department. The certificate holder shall conduct 37 the geotechnical investigation after consultation with DOGAMI to confirm appropriate site-specific 38 methodologies for evaluating seismic and non-seismic hazards to inform equipment foundation 39 and road design. [Final Order; AMD4AMD5]
- 40 53 The certificate holder shall design and construct the facility in accordance with requirements of 41 the current Oregon Structural Specialty Code and International Building Code. [AMD4AMD5]

154The certificate holder shall design, engineer and construct the facility to avoid dangers to human2safety presented by non-seismic hazards. As used in this condition, "non-seismic hazards"3include settlement, landslides, flooding and erosion.

4 5. Hazardous Materials, Fire Protection & Public Safety Conditions

- 555The certificate holder shall handle hazardous materials used on the site in a manner that6protects public health, safety and the environment and shall comply with all applicable local,7state and federal environmental laws and regulations. The certificate holder shall not store8diesel fuel or gasoline on the facility site during operations. [AMD4AMD5]
- 956If a spill or release of hazardous material occurs during construction or operation of the facility,10the certificate holder shall notify the Department within 72 hours and shall clean up the spill or11release and dispose of any contaminated soil or other materials according to applicable12regulations. The certificate holder shall make sure that spill kits containing items such as13absorbent pads are located on equipment and at the O&M buildings. The certificate holder shall14instruct employees about proper handling, storage and cleanup of hazardous materials
- 15 <u>57</u> The certificate holder shall construct turbines and pad-mounted transformers on concrete
 16 foundations and shall cover the ground within a 10-foot radius with non-flammable material.
 17 The certificate holder shall maintain the non-flammable pad area covering during operation of
 18 the facility.
- 1958The certificate holder shall install and maintain self-monitoring devices on each turbine, linked20to sensors at the operations and maintenance building, to alert operators to potentially21dangerous conditions, and the certificate holder shall immediately remedy any dangerous22conditions. The certificate holder shall maintain automatic equipment protection features in23each turbine that would shut down the turbine and reduce the chance of a mechanical problem24causing a fire.
- 2559During construction and operation of the facility, the certificate holder shall ensure that the26Montague Solar O&M buildingsbuilding and all service vehicles are equipped with shovels and27portable fire extinguishers of a 4A5OBC or equivalent rating.
- 28 During construction and operation of the facility, the certificate holder shall develop and 60 29 implement fire safety plans in consultation with the North Gilliam County Rural Fire Protection 30 District to minimize the risk of fire and to respond appropriately to any fires that occur on the 31 facility site. In developing the fire safety plans, the certificate holder shall take into account the 32 dry nature of the region and shall address risks on a seasonal basis. For solar facility 33 components, the certificate holder shall address worker training requirements, inspections, 34 vegetation management, fire prevention and response equipment and agreements with fire 35 districts for mutual assistance in fire response. The certificate holder shall meet annually with 36 local fire protection agency personnel to discuss emergency planning and shall invite local fire 37 protection agency personnel to observe any emergency drill or tower rescue training conducted 38 at the facility. [AMD5]
- <u>61</u> Upon the beginning of operation of the facility, the certificate holder shall provide a site plan to
 the North Gilliam County Rural Fire Protection District. The certificate holder shall indicate on
 the site plan the identification number assigned to each turbine and the actual location of all
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1facility structures. The certificate holder shall provide an updated site plan if additional turbines2or other structures are later added to the facility. During operation, the certificate holder shall3ensure that appropriate fire protection agency personnel have an up-to-date list of the names4and telephone numbers of facility personnel available to respond on a 24-hour basis in case of5an emergency on the facility site.

- 6 <u>62</u> During construction, the certificate holder shall ensure that construction personnel are trained
 7 in fire prevention and response, that construction vehicles and equipment are operated on
 8 graveled areas to the extent possible and that open flames, such as cutting torches, are kept
 9 away from dry grass areas.
- 1063During operation of the facility, the certificate holder shall ensure that all on-site employees11receive annual fire prevention and response training by qualified instructors or members of the12local fire districts. The certificate holder shall ensure that all employees are instructed to keep13vehicles on roads and off dry grassland, except when off-road operation is required for14emergency purposes.
- 15 <u>64</u> Before beginning construction of:

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- i.— Phase 1, the certificate holder shall submit a Notice of Proposed Construction or Alteration to the Federal Aviation Administration (FAA) and the Oregon Department of Aviation identifying the proposed final locations of turbine towers and meteorological towers. The certificate holder shall promptly notify the Department of the responses from the FAA and the Oregon Department of Aviation.
- 21 Phase 2, the certificate holder shall submit a Notice of Proposed Construction or Alteration to the 22 Federal Aviation Administration (FAA) and the Oregon Department of Aviation identifying the 23 proposed final locations of turbine towers and meteorological towers to determine if the 24 structure(s) are a hazard to air navigation and aviation safety. The certificate holder shall 25 promptly notify the Department of the responses from the FAA and the Oregon Department of 26 Aviation. The FAA and ODA evaluation and determinations are valid for 18 months (per OAR 27 738-070-0180), once issued. The certificate holder shall maintain current hazard determinations 28 on file commensurate with construction timelines. [AMD4AMD5]
- 2965The certificate holder shall follow manufacturers' recommended handling instructions and30procedures to prevent damage to turbine or turbine tower components that could lead to31failure.
- 3266The certificate holder shall construct turbine towers with no exterior ladders or access to the33turbine blades and shall install locked tower access doors. The certificate holder shall keep34tower access doors locked at all times, except when authorized personnel are present.
- 3567During operation of the facility, the certificate holder shall have a safety-monitoring program36and shall inspect all turbine and turbine tower components on a regular basis. The certificate37holder shall maintain or repair turbine and turbine tower components as necessary to protect38public safety.

- 1<u>68</u>For turbine types having pad-mounted step-up transformers, the certificate holder shall install2the transformers at the base of each tower in locked cabinets designed to protect the public3from electrical hazards and to avoid creation of artificial habitat for raptor prey.
- 4<u>69</u>To protect the public from electrical hazards, the certificate holder shall enclose the facility5substations, solar array, and battery storage systems with appropriate fencing and locked gates.6[AMD4AMD5]
- 7 70 Before beginning construction of any new State Highway approaches or utility crossings, the 8 certificate holder shall obtain all required permits from the Oregon Department of 9 Transportation (ODOT) subject to the applicable conditions required by OAR Chapter 734, 10 Divisions 51 and 55. The certificate holder shall submit the necessary application in a form 11 satisfactory to ODOT and the Department for the location, construction and maintenance of a 12 new approach to State Highway 19 for access to the site south of Tree Lane.. The certificate 13 holder shall submit the necessary application in a form satisfactory to ODOT and the 14 Department for the location, construction and maintenance of transmission lines crossing 15 Highway 19.
- 16 71 The certificate holder shall design and construct new access roads and private road 17 improvements to standards approved by the Gilliam County Road Department-or, where 18 applicable, the Morrow County Public Works Department. Where modifications of County roads 19 are necessary, the certificate holder shall construct the modifications entirely within the County 20 road rights-of-way and in conformance with County road design standards subject to the 21 approval of the Gilliam County Road Department-or, where applicable, the Morrow County 22 Public Works Department. Where modifications of State roads or highways are necessary, the 23 certificate holder shall construct the modifications entirely within the public road rights-of-way 24 and in conformance with Oregon Department of Transportation (ODOT) standards subject to the 25 approval of ODOT.
- 2672The certificate holder shall construct access roads with a finished width of up to 20 feet,27designed under the direction of a licensed engineer and compacted to meet equipment load28requirements.
- 2973During construction of the facility, the certificate holder shall implement measures to reduce30traffic impacts, including:
- 31 (h) Providing notice to adjacent landowners when heavy construction traffic is anticipated.
- 32 (i) Providing appropriate traffic safety signage and warnings.
- 33(j)Requiring flaggers to be at appropriate locations at appropriate times during
construction to direct traffic.
- 35(k)Using traffic diversion equipment (such as advance signage and pilot cars) when slow or36oversize construction loads are anticipated.
- 37 (I) Maintaining at least one travel lane at all times to the extent reasonably possible so that
 38 roads will not be closed to traffic because of construction vehicles.

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1		(m)	Encouraging carpooling for the construction workforce.		
2 3		(n)	Including traffic control procedures in contract specifications for construction of the facility.		
4 5		(0)	Keeping Highway 19 free of gravel that tracks out onto the highway at facility access points.		
6 7 8 9	<u>74</u>	The ce County park e County	rtificate holder shall ensure that no equipment or machinery is parked or stored on any y road whether inside or outside the site boundary. The certificate holder may temporarily quipment off the road but within County rights-of-way with the approval of the Gilliam y Road Department-or, where applicable, the Morrow County Public Works Department		
$ \begin{array}{c} 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\\ 20\\ \end{array} $	<u>75</u>	The certificate holder shall cooperate with the Gilliam County Road Department to ensure that any unusual damage or wear to county roads that is caused by construction of the facility is repaired by the certificate holder. Submittal to the Department of an executed Road Use Agreement with Gilliam County shall constitute evidence of compliance with this condition. Upon completion of construction, the certificate holder shall restore public roads to pre- construction condition or better to the satisfaction of the applicable county departments. If required by Gilliam County, the certificate holder shall post bonds to ensure funds are available to repair and maintain roads affected by the facility. If construction of a phase of the facility will utilize county roads in counties other than Gilliam County, the certificate holder shall coordinate with the Department and the respective county road departments regarding the implementation of a similar Road Use Agreement. [AMD4AMD5]			
21 22 23 24 25 26	<u>76</u>	During develo about teleph certific trained	construction, the certificate holder shall require that all on-site construction contractors op and implement a site health and safety plan that informs workers and others on-site first aid techniques and what to do in case of an emergency and that includes important one numbers and the locations of on-site fire extinguishers and nearby hospitals. The cate holder shall ensure that construction contractors have personnel on-site who are d and equipped for tower rescue and who are first aid and CPR certified.		
27 28 29 30 31 32 33 34 35	<u>77</u>	During and sa to do i include hospit service for tow rescue Arlingt	operation of the facility, the certificate holder shall develop and implement a site health fety plan that informs employees and others on-site about first aid techniques and what n case of an emergency, including a contingency plan in a fire emergency, and that es important telephone numbers and the locations of on-site fire extinguishers, nearby als, Gilliam County Sheriff's Office and the office locations of the backup law enforcement es. The certificate holder shall ensure that operations personnel are trained and equipped ver rescue. If the certificate holder conducts an annual emergency drill or performs tower training at the facility, the North Gilliam County Rural Fire Protection District and the con Fire Department will be invited to observe. [AMD4AMD5]		
36 37 38 39 40 41	<u>78</u> (a)	During securit site se protoc shall b	construction of each phase of the facility, the certificate holder shall provide on-site by within the facility site boundary, and shall establish good communications between on- curity personnel and the Gilliam County Sheriff's Office by establishing a communication of between the security personnel and the Sherriff's office. The communication protocol e sent to the Department prior to construction.		
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- (b) During operation, the certificate holder shall ensure that appropriate law enforcement agency
 personnel have an up-to-date list of the names and telephone numbers of facility personnel
 available to respond on a 24-hour basis in case of an emergency on the facility site. The list shall
 also be sent to the Department.
- 5 <u>79</u> The certificate holder shall notify the Department of Energy and the Gilliam County Planning
 6 Department within 72 hours of any accidents including mechanical failures on the site
 7 associated with construction or operation of the facility that may result in public health and
 8 safety concerns

9 6. Water, Soils, Streams & Wetlands Conditions

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- 11i.The certificate holder shall conduct all construction work in compliance with an Erosion and12Sediment Control Plan (ESCP) satisfactory to the Oregon Department of Environmental13Quality and as required under the National Pollutant Discharge Elimination System (NPDES)14Storm Water Discharge General Permit #1200-C. The certificate holder shall include in the15ESCP any procedures necessary to meet local erosion and sediment control requirements or16storm water management requirements.
- 17 ii. 18 a. Before beginning construction of Phase 2 wind energy generation components, the 19 certificate holder shall submit to the Department and Gilliam County Planning Director 20 for review and approval a topsoil management plan including how topsoil will be 21 stripped, stockpiled, and clearly marked in order to maximize topsoil preservation and 22 minimize erosion impacts. [OAR 660-033-0130(38)(f)(B)]. The topsoil management plan 23 may be incorporated into the final Erosion and Sediment Control Plan, required under 24 sub(c) or may be provided to the Department as a separate plan.
 - b. Prior to beginning facility operation, the certificate holder shall provide the Department a copy of an operational SPCC plan, if required pursuant to OAR 340-141-0001 to -0240. [AMD4AMD5]
- 2981During construction, the certificate holder shall limit truck traffic to improved road surfaces to
avoid soil compaction, to the extent practicable.
- 3182During construction, the certificate holder shall implement best management practices to32control any dust generated by construction activities, such as applying water to roads and33disturbed soil areas.
- 34 83 Before beginning construction of the facility or a phase of the facility, the certificate holder shall 35 provide to the Department a map showing the final design locations of all components of the 36 facility or phase of the facility, and the areas that would be disturbed during construction and 37 showing the wetlands and stream channels previously surveyed by CH2M HILL or HDR as 38 described in the Final Order on the Application and the Final Order on Amendment #4. For areas 39 to be disturbed during construction that lie outside of the previously-surveyed areas, the 40 certificate holder shall hire qualified personnel to conduct a pre-construction investigation to 41 determine whether any jurisdictional waters of the State exist in those locations within the 42 proposed expanded site boundary. The certificate holder shall provide a written report on the 43 pre-construction investigation to the Department and the Department of State Lands for
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1 2 3		approval before beginning construction of the phase. . The certificate holder shall ensure tha construction and operation of the facility will have no impact on any jurisdictional water identified in the pre-construction investigation.			
4 <u>84</u> The certificate holder			e holder shall avoid impacts to waters of the state in the following manner:		
5		(a) The c	ertificate holder shall avoid any disturbance to delineated wetlands.		
6 7 8 9 10 11		(b) The c collec Final mate that t whole	ertificate holder shall construct stream crossings for roads and underground tor lines substantially as described in the Final Order on the Application or the Order on Amendment #4. In particular, the certificate holder shall not remove rial from waters of the State or add new fill material to waters of the State such he total volume of removal and fill exceeds 50 cubic yards for the project as a e.		
12 13 14		(c) The c deline [AMD4<u>AMD5</u>	ertificate holder shall construct support poles for aboveground lines outside of eated stream channels and shall avoid in-channel impacts.]		
15 16 17 18	<u>85</u>	During facility operation, the certificate holder shall routinely inspect and maintain all facility components including roads, pads (including turbine and battery storage pad), solar array, and trenched areas and, as necessary, maintain or repair erosion and sediment control measures. [AMD4AMD5]			
19 20 21 22 23 24	<u>86</u>	During facility operation, the certificate holder shall obtain water for on-site uses from <u>an</u> on- site <u>wellswell</u> located near the <u>Montague Solar</u> O&M <u>buildingsbuilding</u> . The certificate holder shall construct <u>the</u> on-site <u>wellswell</u> subject to compliance with the provisions of ORS 537.765 relating to keeping a well log. The certificate holder shall not use more than 5,000 gallons of water per day from the on-site <u>wellswell</u> . The certificate holder may use other sources of water for on-site uses subject to prior approval by the Department.			
25 26 27 28 29	<u>87</u>	During facility operation, if wind turbine blade or solar panel-washing becomes necessary, the certificate holder shall ensure that there is no runoff of wash water from the site or discharges to surface waters, storm sewers or dry wells. The certificate holder shall not use acids, bases o metal brighteners with the wash water. The certificate holder may use biodegradable, phosphate-free cleaners sparingly. [AMD4AMD5]			
30	7. Tra	nsmission Line	e & EMF Conditions		
31 32 33 34 35	<u>88</u>	The certificate practical. The Based on geo may install se segments mu	e holder shall install the 34.5-kV collector system underground to the extent certificate holder shall install underground lines at a minimum depth of three feet. technical conditions or other engineering considerations, the certificate holder gments of the collector system aboveground, but the total length of aboveground st not exceed 27 miles.		
36 37	<u>89</u>	The certificate electromagne	e holder shall take reasonable steps to reduce or manage human exposure to tic fields, including but not limited to:		

	1 2	(a) Constructing all aboveground transmission lines at least 200 feet from any residence other occupied structure, measured from the centerline of the transmission line.				
I	3 4 5		(b)(a) Providing to landowners a map of underground and overhead transmission lines on their property and advising landowners of possible health risks from electric and magnetic fields.			
	6 7 8		(c)(b) Designing and maintaining all transmission lines so that alternating current electric fields do not exceed 9 kV per meter at one meter above the ground surface in areas accessible to the public.			
	9 10		(d)(c) Designing and maintaining all transmission lines so that induced voltages during operation are as low as reasonably achievable.			
	11 12 13 14	90	In advance of, and during, preparation of detailed design drawings and specifications for 230-kV and 34.5-kV transmission lines, the certificate holder shall consult with the Utility Safety and Reliability Section of the Oregon Public Utility Commission to ensure that the designs and specifications are consistent with applicable codes and standards.			
	15	8.	Plants, Wildlife & Habitat Protection Conditions			
	16 17 18 19 20	<u>91</u>	Prior to construction of the Facility-or a phase of the Facility, the certificate holder shall finalize the Wildlife Monitoring and Mitigation Plans (WMMPs), based on the draft WMMP included as Attachment F of the Final Order on Request for Amendment #4 <u>5</u> , as approved by the Department in consultation with ODFW. The certificate holder shall conduct wildlife monitoring as described in the final WMMP, as amended from time to time. [Amendment #3; AMD4AMD5]			
	21 22 23 24 25 26	<u>92</u>	The certificate holder shall restore areas disturbed by facility construction but not occupied by permanent facility structures according to the methods and monitoring procedures described in the final Revegetation Plans for each phase of the Facilityfacility, as approved by the Department in consultation with ODFW. The final Revegetation Plan shall be based on the draft plan as Attachment E in the Final Order on Request for Amendment #45, and as amended from time to time. [Amendment #3; AMD4AMD5]			
l	27	<u>93</u>	The certificate holder shall <u>:</u>			
1	28 29 30 31 32 33 34 35 36		(a) Acquire the legal right to create, enhance, maintain and protect a habitat mitigation area as long as the site certificate is in effect by means of an outright purchase, conservation easement or similar conveyance and shall provide a copy of the documentation to the Department. Within the habitat mitigation area, the certificate holder shall improve the habitat quality as described in the final Habitat Mitigation Plans for each phase of the Facility, as approved by the Department in consultation with ODFW. The final Habitat Mitigation Plans shall be based on the draft plan included as Attachment G to the Final Order on Request for Amendment #3 and updated based on Condition 31. The final Habitat Mitigation Plans may be amended from time to time. [Amendment #3; AMD4AMD5]			
	37 38 39	HOM	(b) Prior to construction of Phase 2 components, the certificate holder shall finalize and implement the Phase 2 Habitat Mitigation Plan (HMP) included as Attachment D of the Final Order, as approved by ODOE in Consultation with ODFW. Provision 93(b)(A) regarding ITAGUE WIND POWEROREGON TRAIL SOLAR FACILITY 28			
		FOU	RTH AMENDED SITE CERTIFICATE — August 2019 — 2020			

1impacted acreage calculations shall be completed and submitted to the department after2construction is complete as described in the condition below.

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(c) Within 90 days of completion of construction, the certificate holder shall submit to the department and ODFW an updated HMP Table. [<u>AMD4AMD5</u>]

6 The certificate holder shall determine the boundaries of Category 1 Washington ground squirrel 94 7 (WGS) habitat based on the locations where the squirrels were found to be active in the most 8 recent WGS survey prior to the beginning of construction in habitat suitable for WGS foraging or 9 burrow establishment ("suitable habitat"). The certificate holder shall hire a gualified 10 professional biologist who has experience in detection of WGS to conduct surveys using a survey 11 protocol approved by the Oregon Department of Fish and Wildlife (ODFW). The biologist shall 12 survey all areas of suitable habitat where permanent facility components would be located or 13 where construction disturbance could occur. Except as provided in (a), the biologist shall 14 conduct the protocol surveys in the active squirrel season (March 1 to May 31) in 2010 and in 15 the active squirrel seasons in subsequent years until the beginning of construction in suitable 16 habitat. The certificate holder shall provide written reports of the surveys to the Department 17 and to ODFW and shall identify the boundaries of Category 1 WGS habitat. The certificate holder 18 shall not begin construction within suitable habitat until the identified boundaries of Category 1 19 WGS habitat have been approved by the Department. Category 1 WGS habitat includes the 20 areas described in (b) and (c).

- (a) The certificate holder may omit the WGS survey in any year if the certificate holder avoids all permanent and temporary disturbance within suitable habitat until a WGS survey has been completed in the following year and the boundaries of Category 1 habitat have been determined and approved based on that survey.
- (b) Category 1 WGS habitat includes the area within the perimeter of multiple active WGS
 burrows plus a 785-foot buffer, excluding areas of habitat types not suitable for WGS
 foraging or burrow establishment. If the multiple-burrow area was active in a prior
 survey year, then Category 1 habitat includes the largest extent of the active burrow
 area ever recorded (in the current or any prior-year survey), plus a 785-foot buffer.
- 30(c) Category 1 WGS habitat includes the area containing single active burrow detections31plus a 785-foot buffer, excluding areas of habitat types not suitable for WGS foraging or32burrow establishment. Category 1 habitat does not include single-burrow areas that33were found active in a prior survey year but that are not active in the current survey34year.
- 3595The certificate holder shall implement measures to mitigate impacts to sensitive wildlife habitat36during construction including, but not limited to, the following:
- 37(a)The certificate holder shall not construct any facility components within areas of38Category 1 habitat and shall avoid temporary disturbance of Category 1 habitat.
- 39 (b) Before beginning construction, but no more than two years prior to the beginning of construction of a phase of the facility, the certificate holder shall hire a qualified
 - MONTAGUE WIND POWEROREGON TRAIL SOLAR FACILITY 29
 - FOURTH AMENDED SITE CERTIFICATE August 2019 2020

1 2 3 4 5 6 7 8			professional biologist to cond threatened and endangered s of the survey and a copy of th Fish and Wildlife (ODFW), and surveys identify the presence area, the certificate holder sh reduction in the likelihood of Department, in consultation	duct a survey of all areas to be species. The certificate holder he survey to the Department, d the Oregon Department of <i>A</i> e of threatened or endangered hall implement appropriate m survival or recovery of the sp with ODA and ODFW.	disturbed by construction for shall provide a written report the Oregon Department of Agriculture (ODA). If the species within the survey easures to avoid a significant ecies, as approved by the		
9 10 11 12 13		(c)	Before beginning constructio professional biologist shall su ensure that the sensitive use avoided during construction. markings until construction h	n of a phase of the facility, the arvey the Category 1 Washing area is correctly marked with The certificate holder shall m has been completed.	e certificate holder's qualified ton ground squirrel habitat to exclusion flagging and aintain the exclusion		
14 15 16 17 18	14 (d) 15 16 17 18		Before beginning constructio professional biologist shall co 2009 at six plots within or ne Application. The certificate he to the Department and to OD	eginning construction of a phase of the facility, certificate holder's qualified nal biologist shall complete the avian use studies that began in September ix plots within or near the facility site as described in the Final Order on the on. The certificate holder shall provide a written report on the avian use studies epartment and to ODFW.			
19 20 21 22 23 24 25 26 27 28 29 30		(e)	Before beginning construction professional biologist shall con- area as described in the Final to identify any sensitive raptor information on raptor nest us Mitigation Plan referenced in report on the raptor nest sum the surveys identify the prese- holder shall implement appro- and operation of the facility a goals and standards of OAR 6 consultation with ODFW.	n-of a phase of the facility, ce omplete raptor nest surveys w Order on the Application. The or nests near construction are se for analysis as described in a Condition 91. The certificate veys and the surveys to the D ence of raptor nests within the opriate measures to assure the are consistent with the fish an 535-415-0025, as approved by	rtificate holder's qualified ithin the raptor nest survey e purposes of the survey are as and to provide baseline the Wildlife Monitoring and holder shall provide a written epartment and to ODFW. If e survey area, the certificate at the design, construction id wildlife habitat mitigation the Department, in		
31 32 33 34		(f)	In the final design layout of the components, access roads and permanent impacts to high que general landscape where praces where praces and the second seco	he facility, the certificate hold nd construction areas to avoid uality native habitat and to re cticable.	er shall locate facility or minimize temporary and tain habitat cover in the		
35 36 37	<u>96</u>	During foot bu period	construction, the certificate hull for a construction, the certificate hull for a condition of the condition	older shall avoid all constructi nest sites of the following spe	on activities within a 1,300- acies during the sensitive		
		Spec	<u>cies</u>	Sensitive Period	Early Release Date		
		Swa	inson's hawk	April 1 to August 15	May 31		

MONTAGUE WIND POWEROREGON TRAIL SOLAR FACILITY 30

FOURTH AMENDED SITE CERTIFICATE — August 2019 — 2020

Burrowing owl

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- During the year in which construction occurs, the certificate holder shall use a protocol approved by the Oregon Department of Fish and Wildlife (ODFW) to determine whether there are any active nests of these species within a half-mile of any areas that would be disturbed during construction. The certificate holder shall begin monitoring potential nest sites by March 15 and shall continue monitoring until at least May 31 to determine whether any potentiallyactive nest sites become active during the sensitive period.
- 7 If any nest site is determined to be unoccupied by the early release date (May 31), then 8 unrestricted construction activities may occur within 1,300 feet of the nest site after that date. If 9 a nest is occupied by any of these species after the beginning of the sensitive period, the 10 certificate holder will flag the boundaries of a 1,300-foot buffer area around the nest site and 11 shall instruct construction personnel to avoid disturbance of the buffer area. During the 12 sensitive period, the certificate holder shall not engage in high-impact construction activities 13 (activities that involve blasting, grading or other major ground disturbance) within the buffer 14 area. The certificate holder shall restrict construction traffic within the buffer, except on public 15 roads, to vehicles essential to the limited construction activities allowed within the buffer.
- 16 If burrowing owl nests are occupied during the sensitive period, the certificate holder may
 adjust the 1,300-foot buffer around these nests after consultation with ODFW and subject to the
 approval of the Department.
- 19The certificate holder shall hire a qualified independent professional biologist to observe the20active nest sites during the sensitive period for signs of disturbance and to notify the21Department of any non-compliance with this condition. If the biologist observes nest site22abandonment or other adverse impact to nesting activity, the certificate holder shall implement23appropriate mitigation, in consultation with ODFW and subject to the approval of the24Department, unless the adverse impact is clearly shown to have a cause other than construction25activity.
- The certificate holder may begin or resume construction activities within the buffer area before
 the ending day of the sensitive period with the approval of ODFW, after the young are fledged.
 The certificate holder shall use a protocol approved by ODFW to determine when the young are
 fledged (the young are independent of the core nest site).
- 30 97 The certificate holder shall protect the area within 1,300 feet of the BLM Horn Butte Wildlife 31 Area during the long-billed curlew nesting season (March 8 through June 15), as described in 32 this condition. Before beginning construction, the certificate holder shall provide to the 33 Department a map showing the areas of potential construction disturbance in the vicinity of the 34 BLM lands that are part of the Horn Butte Wildlife Area and showing a 1,300-foot buffer from 35 those areas. During the nesting season, the certificate holder shall not engage in high-impact 36 construction activities (activities that involve blasting, grading or other major ground 37 disturbance) or allow high levels of construction traffic within the buffer area. The certificate holder shall flag the boundaries of the 1,300-foot buffer area and shall instruct construction 38 39 personnel to avoid any unnecessary activity within the buffer area. The certificate holder shall 40 restrict construction traffic within the buffer, except on public roads, to vehicles essential to the
 - MONTAGUE WIND POWEROREGON TRAIL SOLAR FACILITY 31

FOURTH AMENDED-SITE CERTIFICATE - August 2019 - 2020

1 2		limited construction activities allowed within the buffer. The certificate holder may engage in construction activities within the buffer area at times other than the nesting season.	
3 4	<u>98</u>	The certificate holder shall implement measures to avoid or mitigate impacts to sensitive wildlife habitat during construction including, but not limited to, the following:	
5 6		(a) Preparing maps to show occlusion areas that are off-limits to construction personnel, such as nesting or denning areas for sensitive wildlife species.	
7		(b) Avoiding unnecessary road construction, temporary disturbance and vehicle use.	
8 9		(c) Limiting construction work to approved and surveyed areas shown on facility constraints maps.	
10 11 12		(d) Ensuring that all construction personnel are instructed to avoid driving cross-country or taking short-cuts within the site boundary or otherwise disturbing areas outside of the approved and surveyed construction areas.	
13	<u>99</u>	The certificate holder shall reduce the risk of injuries to avian species by:	
14 15		(a) Installing turbine towers that are smooth steel structures that lack features that would allow avian perching.	
16 17		(b) Locating turbine towers to avoid areas of increased risk to avian species, such as cliff edges, narrow ridge saddles and gaps between hilltops.	
18 19		(c) Installing meteorological towers that are non-guyed structures to eliminate the risk of avian collision with guy-wires.	
20 21 22		(d) Designing and installing all aboveground transmission line support structures following the most current suggested practices for avian protection on power lines published by the Avian Power Line Interaction Committee.	
23 24 25 26 27 28	<u>100</u>	<u>)</u> The certificate holder shall hire a qualified environmental professional to provide environme training during construction and operation. Environmental training includes information on t sensitive species present onsite, precautions to avoid injuring or destroying wildlife or sensit wildlife habitat, exclusion areas, permit requirements and other environmental issues. The certificate holder shall instruct construction and operations personnel to report any injured of dead wildlife detected while on the site to the appropriate onsite environmental manager.	
29 30 31 32 33 34	<u>101</u>	<u>D1</u> The certificate holder shall impose and enforce a construction and operation speed limit of 2 miles per hour throughout the facility site and, during the active squirrel season (March 1 to May 31), a speed limit of 10 miles per hour from one hour before sunset to one hour after sunrise on private roads near known Washington ground squirrel (WGS) colonies. The certific holder shall ensure that all construction and operations personnel are instructed to watch ou for and avoid WGS and other wildlife while driving through the facility site.	

1 9. Visual Effects Conditions

2	<u>102</u>	To reduce the visual impact of the facility, the certificate holder shall:		
3 4		(a) Mount nacelles on smooth, steel structures, painted uniformly in a low-reflectivity, neutral white color.		
5 6		(b) Paint the <u>Montague Solar collector</u> substation <u>and switching station</u> structures in a low- reflectivity neutral color to blend with the surrounding landscape.		
7		(c) Not allow any advertising to be used on any part of the facility.		
8 9 10 11		(d) Use only those signs required for facility safety, required by law or otherwise required by this site certificate, except that the certificate holder may erect a sign near the <u>Montague</u> <u>Solar</u> O&M <u>buildings</u> to identify the facility, may paint turbine numbers on each tower and may allow unobtrusive manufacturers' logos on turbine nacelles.		
12		(e) Maintain any signs allowed under this condition in good repair.		
13 14 15 16 17	<u>103</u>	The certificate holder shall design and construct the O&M buildingsbuilding, substation, and buildings and containers associated with battery storage to be generally consistent with the character of similar buildings used by commercial farmers or ranchers in the area and shall pair the building in a low-reflectivity, neutral color to blend with the surrounding landscape. [AMD4AMD5]		
18	<u>104</u>	The certificate holder shall not use exterior nighttime lighting except:		
19 20		(a) The minimum turbine tower lighting required or recommended by the Federal Aviation Administration.		
21 22		(b) Security lighting at the O&M buildings and at the substations, provided that such lighting is shielded or downward-directed to reduce glare.		
23		(c) Minimum lighting necessary for repairs or emergencies.		
24 25		(d) Minimum lighting necessary for construction directed to illuminate the work area and shielded or downward-directed to reduce glare.		
26 27 28 29 30	<u>105</u>	The certificate holder shall maintain a minimum distance of 1,000 feet measured from the centerline of each turbine tower or meteorological tower to the centerline of the line-of-sight from the vantage point of the Fourmile Canyon interpretive site looking toward the visible Oregon Trail ruts (bearing S 89-42-34 W from latitude, longitude: 45.622047, 120.044112) as described in the Final Order on the Application.		
31	10. No	ise Control Conditions		
32	<u>106</u>	To reduce construction noise impacts at nearby residences, the certificate holder shall:		
33		(a) Confine the noisiest operation of heavy construction equipment to the daylight hours.		
	MONTA	GUE WIND POWEROREGON TRAIL SOLAR FACILITY 33		

FOURTH AMENDED-SITE CERTIFICATE — August 2019 — 2020

1 2		(b) Require contractors to install and maintain exhaust mufflers on all combustion engine- powered equipment; and
3 4		(c) Establish a complaint response system at the construction manager's office to address noise complaints.
5	<u>107</u>	The certificate holder shall provide to the Department:
6		i. Prior to Phase 1 construction:
7		a. Information that identifies the final design locations of (all turbines, to be built at the
8		facility
9 10		II.— Prior to Phase 2 construction:
10 11		a. A holse analysis that includes the following information:
11		Final design locations of all Phase 1 and Phase 2 noise generating facility components
12		(all wind turbines: substation transformers: inverters, and transformers associated with
14		the photovoltaic solar array: and inverters and cooling systems associated with the
15		battery storage system).
16		
17		The maximum sound power level for the Phase 2 Montague Solar collector substation
18		transformers; inverters and transformers associated with the photovoltaic solar array;
19		inverters and cooling systems associated with battery storage system; and the
20		maximum sound power level and octave band data for the Phase 2 wind turbines
21		selected for the facility based on manufacturers' warranties or confirmed by other
22		means acceptable to the Department.
23		
24		The results of noise analysis of Phase 1 and Phase 2 components according to the final
25		design performed in a manner consistent with the requirements of OAR 340-035-
26		0035(1)(b)(B)(iii) (IV) and (VI) demonstrating to the satisfaction of the Department that
27		the total noise generated by the facility (including the noise from wind turbines,
28		substation transformers, inverters and transformers associated with the photovoltaic
29		solar array; inverters and cooling systems associated with battery storage system) would
30 21		meet the ambient degradation test and maximum allowable test at the appropriate
31 22		measurement point for all potentially-affected holse sensitive properties. The certificate
32 22		noider shall verify that all holse sensitive properties within one mile of the final design
33 34		and included in the procentruction poise analysis based on review of the most recent
35		property owner information obtained from the Gilliam County Tax Assessor Boll
36		property owner information obtained from the dimain county fax Assessor from.
37		For each noise-sensitive property where the certificate holder relies on a noise waiver to
38		demonstrate compliance in accordance with OAR 340-035-0035(1)(b)(B)(iii)(III), a copy
39		of the a legally effective easement or real covenant pursuant to which the owner of the
40		property authorizes the certificate holder's operation of the facility to increase ambient
41		statistical noise levels L10 and L50 by more than 10 dBA at the appropriate
42		measurement point. The legally-effective easement or real covenant must: include a
43		legal description of the burdened property (the noise-sensitive property); be recorded in
44		the real property records of the county; expressly benefit the certificate holder;
45		expressly run with the land and bind all future owners, lessees or holders of any interest
	MONT	AGUE WIND POWEROREGON TRAIL SOLAR FACILITY

34 FOURTH AMENDED SITE CERTIFICATE - August 2019 - 2020

1 2		in the burdened property; and not be subject to revocation without the certificate holder's written approval.	
3		[Final Order on ASC; AMD4AMD5]	
4 5	<u>108</u> C c	During operation of the facility, the certificate holder shall implement measures to ensure compliance with the noise control regulation, including:	
6 7		a. Providing notice of the noise complaint system and how to file a noise complaint to noise sensitive receptors within 1-mile of noise-generating components.	
8 9 10 11 12 13 14 14		 b. Maintain a complaint response system to address noise complaints. The certificate holder shall promptly notify the Department of any complaints received regarding facility noise and of any actions taken by the certificate holder to address those complaints. In response to a complaint from the owner of a noise sensitive property regarding noise levels during operation of the facility, the Council may require the certificate holder to monitor and record the statistical noise levels to verify that the certificate holder is operating the facility in compliance with the noise control regulations. [AMD5] 	
16			
17	7 11. Waste Management Conditions		
18 19 20	<u>109</u> T c c	The certificate holder shall provide portable toilets for on-site sewage handling during construction and shall ensure that they are pumped and cleaned regularly by a licensed contractor who is qualified to pump and clean portable toilet facilities.	
21 22 23 24	<u>110</u> [g s t	During operation of the facility, the certificate holder shall discharge sanitary wastewater generated at the <u>Montague Solar</u> O&M <u>buildingsbuilding</u> to <u>a</u> licensed on-site septic ystems<u>system</u> in compliance with State permit requirements. The certificate holder shall design he septic systems<u>system</u> for a discharge capacity of less than 2,500 gallons per day.	
25 26	<u>111</u> T ii	The certificate holder shall implement a waste management plan during construction that ncludes but is not limited to the following measures:	
27		(a) Recycling steel and other metal scrap.	
28		(b) Recycling wood waste.	
29		(c) Recycling packaging wastes such as paper and cardboard.	
30		(d) Collecting non-recyclable waste for transport to a local landfill by a licensed waste hauler.	
31 32 33 34		(e) Segregating all hazardous wastes such as used oil, oily rags and oil-absorbent materials, <u>and</u> mercury-containing lights and lithium-ion, flow, lead-acid and nickel-cadmium batteries for disposal by a licensed firm specializing in the proper recycling or disposal of hazardous wastes. [AMD4AMD5]	
35 36 37		(f) Confining concrete delivery truck rinse-out within the foundation excavation, discharging rinse water into foundation holes and burying other concrete waste as part of backfilling the turbine foundation.	
	MONTAG	UE WIND POWEROREGON TRAIL SOLAR FACILITY	
	3 FOURTH #	NAMENDED-SITE CERTIFICATE — August 2019 — 2020	

1 2	<u>112</u>	The certificate holder shall implement a waste management plan during facility operation that includes but is not limited to the following measures:		
3		(a) Training employees to minimize and recycle solid waste.		
4		(b) Recycling paper products, metals, glass and plastics.		
5		(c) Recycling used oil and hydraulic fluid		
6		(d) Collecting non-recyclable waste for transport to a local landfill by a licensed waste hauler.		
7 8 9 10		(e) Segregating all hazardous, non-recyclable wastes such as used oil, oily rags and oil- absorbent materials, <u>and mercury-containing lights and lithium-ion</u> , flow, lead-acid and nickel-cadmium batteries for disposal by a licensed firm specializing in the proper recycling or disposal of hazardous wastes. [AMD4AMD5]		
11	VI.	CONDITIONS ADDED BY AMENDMENT # 1 OF MONTAGUE		
12 13 14 15 16 17 18	<u>113</u>	The transfer of the First Amended Site Certificate from the certificate holder to Portland General Electric (PGE), the transferee, shall not be effective until PGE executes in closing the form of site certificate naming PGE the certificate holder, which is attached as Attachment B to the Final Order on Amendment #1. Upon closing, the First Amended Site Certificate naming PGE as the certificate holder shall be in full force and effect and the First Amended Site Certificate naming Montague Wind Power LLC as the certificate holder shall be considered rescinded and void in its entirety[Removed by Amendment #2.]		
19 20 21	<u>114</u>	Should the closing contemplated in Condition 113 not occur within 18 months of the effective date of the First Amended Site Certificate to Montague Wind Power LLC, the Council's transfer approval within the Final Order on Amendment #1 shall be void. [Removed by Amendment #2.]		
22 23 24	<u>115</u>	PGE must provide the Department a copy of the executed First Amended Site Certificate and documentation of the asset purchase agreement within 7 days of closing [Removed by Amendment #2.]		
25	VII.	CONDITIONS ADDED BY AMENDMENT #4 OF MONTAGUE		
26 27 28	<u>116:</u>	The certificate holder shall ensure its third-party contractor transports and disposes of battery and battery waste in compliance with all applicable regulations and manufacturer recommendations related to the transport of hazardous battery materials.		
29 30 31		a. Prior to construction, the certificate holder shall provide a description to the Department of applicable regulations and manufacturer recommendations applicable to the transport and disposal of batteries and battery related waste.		
32 33 34		b. During construction and operation, the certificate holder shall report to the Department any potential compliance issue or cited violations of its third-party contractor for the requirements identified in sub(a) of this condition. [AMD5]		
35		[AMD4]		
	MONT	AGUE WIND POWEROREGON TRAIL SOLAR FACILITY 36		

FOURTH AMENDED-SITE CERTIFICATE — August 2019 — 2020

<u>117</u> During facility operation, the certificate holder shall conduct monthly inspections of the battery storage systems, in accordance with manufacturer specifications. The certificate holder shall maintain documentation of inspections, including any corrective actions, and shall make available for review upon request by the Department. [AMD4AMD5]

CONDITIONS ADDED BY AMENDMENT #5

8 The site certificate authorizes shared use of related or supporting facilities including the 118 9 Montague Solar collector substation, Montague Solar O&M building, battery storage system, 10 230 kV transmission line, access roads, and temporary staging areas under the site certificates 11 issued for the Montague Solar Facility and Oregon Trail Solar Facility. The site certificate 12 authorizes shared use of related or supporting facilities including the Montague Wind collector 13 substation under the site certificates issued for the Montague Wind Facility, Montague Solar 14 Facility and Oregon Trail Solar Facility. 15

- a. Within 30 days of shared use, the certificate holder must provide evidence to the Department that the certificate holders have an executed agreement for shared use of facilities.
- 18b. If certificate holders of Montague Wind, Montague Solar or Oregon Trail Solar Facility19propose to substantially modify any of the shared facilities listed in sub(a) of this condition,20each certificate holder shall submit an amendment determination request or request for21site certificate amendment to obtain a determination from the Department on whether a22site certificate amendment is required or to process an amendment for both site23certificates.
 - <u>c.</u> Prior to facility decommissioning or if facility operations cease, each certificate holder shall submit an amendment determination request or request for site certificate amendment to document continued ownership and full responsibility, including coverage of full decommissioning amount of the shared facilities in the bond or letter of credit pursuant to Condition 32, for the operational facility, if facilities are decommissioned at different times.

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VIII. SUCCESSORS AND ASSIGNS

To transfer this site certificate or any portion thereof or to assign or dispose of it in any other manner,
 directly or indirectly, the certificate holder shall comply with OAR 345-027-01000400.

33 IX. SEVERABILITY AND CONSTRUCTION

34 If any provision of this agreement and certificate is declared by a court to be illegal or in conflict with 35 any law, the validity of the remaining terms and conditions shall not be affected, and the rights and 36 obligations of the parties shall be construed and enforced as if the agreement and certificate did not 37 contain the particular provision held to be invalid.

38 X. GOVERNING LAW AND FORUM

This site certificate shall be governed by the laws of the State of Oregon. Any litigation or arbitrationarising out of this agreement shall be conducted in an appropriate forum in Oregon.

1 XI. EXECUTION

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This site certificate may be executed in counterparts and will become effective upon signature by the
 Chair of the Energy Facility Siting Council and the authorized representative of the certificate holder.

IN WITNESS WHEREOF, this site certificate has been executed by the State of Oregon, acting by and

through its Energy Facility Siting Council, and by Montague Wind Power FacilityOregon Trail Solar, LLC.

ENERGY FACILITY SITTING COUNCIL	MONTAGUE WIND POWER FACILITYOREGON TRAIL SOLAR, LLC
Ву:	Ву:
Print:	Print:
Date:	Date:
	and
	Ву:
	Print:
	Date:



Figure 1: Site Boundary and 230 kV transmission line corridor

1 2

> OREGON TRAIL SOLAR FACILITY FIFTH AMENDED SITE CERTIFICATE — 2020

Subject:	FW: Montague Wind Power Facility - Request for Amendment 5 - Request for ODA	
	Comment	
Attachments:	7460 Data Template.xlsx	

From: THOMPSON Seth <Seth.THOMPSON@aviation.state.or.us>
Sent: Wednesday, May 27, 2020 1:26 PM
To: ESTERSON Sarah * ODOE <Sarah.Esterson@oregon.gov>; LAWYER Matthew A
<Matthew.A.LAWYER@aviation.state.or.us>
Cc: PECK Heather <heather.peck@aviation.state.or.us>
Subject: RE: Montague Wind Power Facility - Request for Amendment 5 - Request for ODA Comment

Hi Sarah,

Thank you for reaching out. Things are well here! I hope you are doing well too.

I have been following Montague and was awaiting the comment period to open.

Matt is currently out of the office, but I will do my best to provide you with an accurate review of this site.

I have included responses to your bulleted questions below:

 Are there any public or private/military airports/heliports within 10 miles of the proposed amended site boundary? The facility site boundary can be viewed here: <u>EFSC Energy Facilities GIS Map</u>

After reviewing the site boundary using your EFSC Energy Facilities GIS Map and Google Earth, the project's site boundary is less than three miles to the south of the Arlington Municipal airport.

 Structures associated with this amendment include 34.5 kV and 230 kV transmission structures (100 ft max), solar modules (15 ft max), and a switching station (less than 100 ft). Based on review of proximate airports, are there any concerns?

Based on the above the information, I recommend the transmission structures and switching station undergo airspace analysis by the ODA.

As there are multiple structures, you can send me their coordinate and height data in a single excel doc if that is easiest.

I will then provide you with a letter of determination for all structures you provide me.

• Could you confirm whether ODA believes the changes proposed in Request for Amendment 5 are consistent or would comply with FAA Part 77.9 standards?

Based on the information I have reviewed for this site and the information you provided me per structure heights, the changes proposed in Request for Amendment 5 will likely comply with FAA Part 77.9 standards.

The ODA may recommend lighting and marking for structures that exceed either notification or obstruction standards per FAA Part 77.9.

I know that we have been having trouble uploading shapefiles for sites to Google Earth.

For that reason, it would be most accurate for the ODA to receive coordinates for the sites. I have included an excel template for you to use if needed.

Thank you again and please let me know if I can provide further assistance.

Seth Thompson oregon department of aviation aviation planner



OFFICE 503-378-2529 CELL 503-507-6965 EMAIL seth.thompson@aviation.state.or.us 3040 25TH STREET SE, SALEM, OR 97302 WWW.OREGON.GOV/AVIATION

Subject:

Montague Wind Power Facility - Request for Amendment 5 - Request for ODFW Review/Comments

From: Steve Cherry <Steve.P.Cherry@state.or.us>
Sent: Thursday, May 28, 2020 1:49 PM
To: ESTERSON Sarah * ODOE <Sarah.Esterson@oregon.gov>; REIF Sarah J <Sarah.J.Reif@state.or.us>; CHERRY Steve P <Steve.P.Cherry@state.or.us>
Subject: RE: Montague Wind Power Facility - Request for Amendment 5 - Request for ODFW Review/Comments

Sarah,

The proposed new additional acreage does appear to be category 6 dryland wheat. As long as they stay within the category 6 habitat ODFW does not see any additional survey requirements for this additional acreage. The raptor nest surveys that they have completed would have covered this area and since it is Category 6 dryland wheat there is no potential for WGS or any sensitive species other than raptors.

On February 8th 2019 while commenting on the draft WMMP for Phase two I recommended that we complete at least one year of post construction fatality monitoring on the proposed solar array. If this additional acreage is included and built as a solar array I would recommend that we conduct one year of post construction monitoring on the entire array. While we do not have any information that I am aware of that size of the facility affects mortality I think it would still be good to look at some local facilities to determine fatality effects on birds. This has been our consistent recommendation to county and EFSC level projects at least in the Basin. There is still very little published information regarding impacts of PV on bird fatality but a recent paper by Kosciuck et al 2020 found that 90 percent of the 10 sites they looked at had fatalities to water obligate birds and a high end estimate of 2.49 bird fatlities per megawatt per year in the southwestern U.S.

Please let me know if you have any more questions regarding this proposed amendment. Thanks

Steve

Attachment C: DPO Commenter Index		
Date Received	Name	Organization
06/30/2020	Seth Thompson	Oregon Department of Aviation
07/17/2020	Stephen Wrecsics	Morrow County Planning Department
07/07/2020	Steve Cherry	Oregon Department of Fish and Wildlife
07/13/2020	Heidi Hartman	Oregon Department of State Lands
07/21/2020	Don Morehouse	Oregon Department of Transportation
07/17/2020	Jason Allen	Oregon State Historic Preservation Office
07/21/2020	Teara Farrow Ferman	Confederated Tribes of the Umatilla Indian Reservation
07/21/2020	Shawn Steinmetz	Confederated Tribes of the Umatilla Indian Reservation
07/23/2020	Chuck Little	General Public
07/23/2020	Joyce Weatherford	General Public
07/23/2020	Brian Walsh	Avangrid Renewables LLC
07/23/2020	Matt Hutchinson	Avangrid Renewables LLC

Subject:

FW: Montague Wind Power Facility - Notice of Comment Period on Draft Proposed Order/Request for Amendment 5 of Site Certificate - (July 23 Comment Deadline)

From: THOMPSON Seth <Seth.THOMPSON@aviation.state.or.us>
Sent: Tuesday, June 30, 2020 9:59 AM
To: ESTERSON Sarah * ODOE <Sarah.Esterson@oregon.gov>
Subject: RE: Montague Wind Power Facility - Notice of Comment Period on Draft Proposed Order/Request for Amendment 5 of Site Certificate - (July 23 Comment Deadline)

Good morning Sarah,

I hope you are doing well!

In regards to the Montague Wind Power Facility below, do you need any additional comments for this project or need further assistance from ODA?

On May 27, 2020, I provided comments to ODOE regarding ODA's aeronautical review of tall structures at this project.

I just wanted to reach out to ensure no additional information was needed from ODA.

Thank you and please let me know if you need any assistance or have questions.

Best regards,





OFFICE 503-378-2529 CELL 503-507-6965 EMAIL seth.thompson@aviation.state.or.us 3040 25TH STREET SE, SALEM, OR 97302 WWW.OREGON.GOV/AVIATION

From:	Stephen Wrecsics <swrecsics@co.morrow.or.us></swrecsics@co.morrow.or.us>
Sent:	Friday, July 17, 2020 4:18 PM
То:	ESTERSON Sarah * ODOE
Cc:	Stephanie Case; Matt Scrivner; Sandra Pointer; Gregg Zody
Subject:	Montague Request for Amendment 5 Comment Letter
Attachments:	RFA5 Comment Letter Signed.pdf

Please find Morrow County's comments on RFA5 for Montague Wind Power Facility. Hope everything is good on your end!

Have a great weekend,

Stephen Wrecsics

GIS Planning Technician Planning Department Morrow County, Oregon 45.8958, -119.4980

MA: P.O. Box 40, Irrigon Oregon 97844 PA: 205 Third Street NE, Irrigon Oregon 97844 P: 541.922.4624 W: www.co.morrow.or.us
PLANNING DEPARTMENT



PO Box 40 • 205 Third Street NE Irrigon, Oregon 97844 (541) 922-4624

July 20, 2020

Sarah Esterson, Senior Siting Analyst Oregon Department of Energy 550 Capitol Street NE, 1st Floor Salem, OR 97301

Dear Mrs. Esterson,

Morrow County appreciates the opportunity to comment on the Montague Wind Power Facility, LLC (current certificate holder) Request for Amendment 5 (RFA5) and the Draft Proposed Order (DPO). It is the understanding of Morrow County that Amendment #5 would split the previously approved facility components into three site certificates, those certificates are to be owned by individual LLC companies created by Avangrid Renewables, LLC. Additionally, RFA5 would approve the reduction in the site boundary; increased solar micro-siting area; construct and operate new equipment; use an alternative route for a segment of the transmission line; and modify some site certificate conditions.

Although the Montague Wind Power Facility is located outside of Morrow County with little to no direct impact, a portion of the components required for future projects may need to utilize the Morrow County road network. Because of this potential impact, Morrow County would require that a full Road Use Agreement be implemented with Morrow County Public Works prior to the start of construction. Morrow County Public Works Director, Matt Scrivner can be reached by email at mscrivner@co.morrow.or.us or by phone at 541.989.9500 and will be able to fully address this requirement.

Again, the opportunity to comment is very much appreciated. It has been a pleasure working with you and other Department staff to date, and I anticipate that will continue. Should you have any questions about this comment letter, or need additional information, please do not hesitate to contact me.

Regards,

Stephen Wrecsics GIS Planning Technician

Cc: Stephanie Case, Interim Morrow County Planning Director Matt Scrivner and Sandra Pointer, Morrow County Public Works

Montague Wind Power Facility Request for Amendment 5 July 17, 2020 Page 1 of 1

www.co.morrow.or.us/planning

Subject:

FW: Montague Wind Power Facility - Notice of Comment Period on Draft Proposed Order/Request for Amendment 5 of Site Certificate - (July 23 Comment Deadline)

From: Steve Cherry <Steve.P.Cherry@state.or.us>
Sent: Tuesday, July 7, 2020 11:30 AM
To: ESTERSON Sarah * ODOE <Sarah.Esterson@oregon.gov>
Cc: REIF Sarah J <Sarah.J.Reif@state.or.us>
Subject: RE: Montague Wind Power Facility - Notice of Comment Period on Draft Proposed Order/Request for Amendment 5 of Site Certificate - (July 23 Comment Deadline)

Sarah,

After reviewing the draft proposed order and the application, ODFW does not have any additional comments on this proposed amendment. As stated earlier in my comments from May 28th the increased boundary and proposed solar array acreages are dryland wheat and provide minimal wildlife habitat. The conditions in the draft proposed order require surveys of the new areas for any raptor nests and WGS habitat. The HMP and WMMP will address these additional acreages and will ensure that the appropriate protections and monitoring is completed for the proposed project. Please let me know if you have any questions or need any additional information from ODFW on this proposed amendment. Thanks

Steve Cherry District Wildlife Biologist Oregon Department of Fish and Wildlife Heppner District PO Box 363 54173 Hwy 74 Heppner, OR 97836 (541) 676-5230

From: Sent: To: Cc: Subject: MOREHOUSE Donald <Donald.MOREHOUSE@odot.state.or.us> Tuesday, July 21, 2020 3:52 PM ESTERSON Sarah * ODOE PETERS Scott Montague Wind Power Facility

Hi Sarah,

An ODOT Miscellaneous/Construction Permit must be obtained for all work within the state highway right of way. Please contact District Operations Coordinator/Permit Specialist, Scott Peters at 541-296-2215 to obtain this. Thanks,

Don Morehouse (he/him/his) Senior Transportation Planner ODOT Region 4 Desk: (541) 388-6046 Personal Cell: (805) 458-3320 Work Cell: (541) 233-6558 Donald.Morehouse@odot.state.or.us

**I will be working from home for the week of July 20-July 24:

- Monday Thursday (7:30AM-5:00PM)
- Friday (7:30AM-11:30AM)



Subject:

FW: Montague Wind Power Facility - Notice of Comment Period on Draft Proposed Order/Request for Amendment 5 of Site Certificate - (July 23 Comment Deadline)

From: HARTMAN Heidi <heidi.m.hartman@state.or.us>
Sent: Monday, July 13, 2020 2:53 PM
To: ESTERSON Sarah * ODOE <Sarah.Esterson@oregon.gov>
Subject: RE: Montague Wind Power Facility - Notice of Comment Period on Draft Proposed Order/Request for Amendment 5 of Site Certificate - (July 23 Comment Deadline)

Hi Sarah,

If any of the proposed work under the amendment occurs within an area that is not covered by an active, concurred delineation, then a new wetland delineation is required.

Heidi Hartman

Aquatic Resource Coordinator Baker, Gilliam, Grant, Hood River, Jefferson, Morrow, Sherman, Umatilla, Union, Wallowa

Oregon Department of State Lands 1645 NE Forbes Road, Suite 112 Bend, OR 97701 Office: 541-388-6060 | Fax: 541-388-6480 | Cell: 541-419-7650 pronouns: she/her/hers

From:	ALLEN Jason * OPRD
Sent:	Friday, July 17, 2020 3:46 PM
То:	ESTERSON Sarah * ODOE
Cc:	matthew.hutchinson@avangrid.com
Subject:	SHPO Case Nbr SHPO Case No.: 10-0378, ODOE, Avangrid Renewables Montague Wind
	Power, NWP-2010-86
Attachments:	SHPO Response Letter Case Nbr SHPO Case No 10-0378.pdf

Hello Sarah and Matthew,

Please find my letter requesting consultation and renegotiation of the mitigation measures for adverse effects to the historic Weatherford Barn, attached. If you have any questions, or would like to discuss, please feel free to get in touch with me directly.

Cheers,

-Jason

Please find the SHPO's response to your request for comment on cultural resources at the above-identified project. This attachment serves as your file copy. If you have any questions, please feel free to contact me.



Parks and Recreation Department

State Historic Preservation Office 725 Summer St NE Ste C Salem, OR 97301-1266 Phone (503) 986-0690 Fax (503) 986-0793 www.oregonheritage.org



July 17, 2020

Ms. Sarah Esterson OR Dept of Energy 550 Capitol St NE, 1st Flr Salem, OR 97301

RE: SHPO Case No. 10-0378
ODOE, Avangrid Renewables Montague Wind Power, NWP-2010-86
Wind farm
(1N 20E 1, 12) (1N 21E 1, 4, 5, 6, 7, 8), Arlington, Gilliam County

Dear Ms. Esterson:

This letter is in regard to the proposed expansion of the solar array associated with the Montague Wind Power Facility, specifically, the effect of the expansion of the solar facility on the historic property known as the Weatherford Barn. As you recall, the Weatherford Barn has been identified as a significant agricultural property, and is eligible for listing in the National Register of Historic Places. Through previous consultation on an earlier iteration of the proposed facility, and recognized in the draft Mitigation Plan (Part IV), it was found that the integrity of setting, feeling, and association would all be diminished through the construction of the solar facility immediately to the south of the Barn on the opposite side of Bottemiller Lane.

Review of Figure 3 of the latest iteration of the solar array site plan indicates that the new proposal will completely surround the historic Weatherford Barn. Where under the previous proposal the integrity of setting and feeling of the barn would be diminished such that the effect was found to be adverse, and mitigation options proposed, the new proposal will result in those aspects of integrity of the barn being lost entirely, leaving no way to view the barn from any perspective without the presence of the solar array encroaching on the setting. Where it was previously still possible to gain some sense of the barn in a close-to-intact setting similar to that at the time of the Barn's construction, by viewing the barn from the south, the new proposal eliminates that opportunity. We believe that the increased scale of the adverse effect justifies likewise increasing the scale of the mitigation effort.

As you may know, there is no specific approach to mitigation, and measures meant to resolve adverse effects are arrived at through consultation and negotiation among the involved and invited consulting parties. In reviewing the Draft Mitigation Plan that identifies the agreed upon mitigation options for resolving the adverse effects to the barn arising from the previous iteration of the proposed facility, there are some opportunities to adjust the mitigation options by "scaling up" the effort appropriately. For example, where Option 1 involves the documentation of 25 barns, among other things, this number could be adjusted upward to a suitably agreed-upon number. Similarly, Option 3 provides for a \$25,000 donation to the local historical museum, a figure which could also be "scaled up." Option 2, by contrast is more difficult to make such logical adjustments to, however, another approach could be to create a combination of two or more of these options, adjust the scalable numbers appropriately, and come to an agreement on a suitable mitigation package that includes elements from two or all three of these options.

In any event, because the previous mitigation options were developed through consultation with a variety of consulting parties, and the scope of work has changed such that it is reasonable to assume that these options would look different had the current scope of wok been considered, we feel strongly that it would be very appropriate to reinitiate consultation with those consulting parties so that the mitigation options may be

adjusted to match the increased scale of the impacts. We look forward to participating in such consultation.

If you have questions, or would like to discuss any of the above items, please feel free to contact our office.

Sincerely,

10

Jason Allen, M.A. Historic Preservation Specialist (503) 986-0579 jason.allen@oregon.gov

cc: Matt Hutchinson, Avangrid Renewables

From:	Teara Farrow Ferman <tearafarrowferman@ctuir.org></tearafarrowferman@ctuir.org>
Sent:	Tuesday, July 21, 2020 8:37 AM
То:	ESTERSON Sarah * ODOE
Cc:	Shawn Steinmetz
Subject:	CTUIR Comments on Montague Wind Amendment 5 & Draft Proposed Order
Attachments:	CTUIR Comments Memo_Montague Wind Amendment 5 & Draft Proposed Order 072120.pdf

Sarah,

Attached are our comments. Please let Shawn or I know if you have any questions or comments.

Respectfully,

TEARA FARROW FERMAN

Manager | Cultural Resources Protection Program Confederated Tribes of the Umatilla Indian Reservation 46411 Timíne Way | Pendleton | Oregon 97801 541.276.3447 Office | 541.429.7230 Fax TearaFarrowFerman@ctuir.org

Assistant General Manager | Átaw Consulting, LLC A Small Business Enterprise of the CTUIR 46411 Timíne Way | Pendleton | Oregon 97801 541.429.7230 Office | Fax TearaFarrowFerman@ctuir.org

The information in this e-mail may be confidential and intended only for the use and protection of the Confederated Tribes of the Umatilla Indian Reservation. If you have received this email in error, please immediately notify me by return e-mail and delete this from your system. If you are not an authorized recipient for this information, then you are prohibited from any review, dissemination, forwarding or copying of this e-mail and its attachments. Thank you.



Confederated Tribes of the Umatilla Indian Reservation Cultural Resources Protection Program

46411 Timíne Way, Pendleton, Oregon 97801

MEMORANDUM

- To: Sarah Esterson, Senior Siting Analyst Oregon Department of Energy Sent via email to: sarah.esterson@oregon.gov
- From: Teara Farrow Ferman, Cultural Resources Protection Program Manager *Time Famous Ferman*, Department of Natural Resources Confederated Tribes of the Umatilla Indian Reservation 46411 Timine Way, Pendleton, OR 97801 TearaFarrowFerman@ctuir.org 541-276-3447

Date: July 21, 2020

RE: Confederated Tribes of the Umatilla Indian Reservation's Comments on the Montague Wind Power Facility Request for Comments on Request for Amendment 5 and Draft Proposed Order

General Comments:

Thank you for contacting the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) regarding the Request for Comments on Request for Amendment 5 and Draft Proposed Order for the Montague Wind Power Facility project. The CTUIR encouraged Oregon Department of Energy (ODOE) to review previous comments submitted by the CTUIR regarding this project. The project proponent has not been in contact with the CTUIR regarding amendment 5 or mitigation to the adverse effect for this project. Negotiations began quite some time ago but were stopped by Avangrid Renewables, LLC. The CTUIR has reached out to them however no further communications has been held. The CTUIR requests ODOE require the project proponent to re-engage in communication with the CTUIR immediately. The CTUIR offers the following concerns with the project.

Specific Comments:

The Montague Wind Power Facility's Request for Amendment 5 will have a significant adverse effect to historic properties of religious and cultural significance to the CTUIR. The CTUIR first communicated these concerns to Oregon Department of Energy in a letter dated February 26, 2010. The additional development area in the latest amendment to the Montague Wind project's footprint will have a significant adverse effect to two historic properties of religious and cultural significance to the CTUIR. These historic properties are known as *Ulíkš* and *Ala?ála* (Hunn 2015:86).

These historic properties are seasonal camps that were early stops on the CTUIR's seasonal round of First Foods harvesting. These seasonal camps were bases that the CTUIR used to access adjacent plant harvesting and hunting areas. *Ulíkš* and *Ala?ála* are the traditional names for these locations and they are places that are linked together, physically, by a network of trails, and are the places that are referred to when tribal members relay the history of the area in oral histories and stories related to these locations.

The fact that the place names for *Ulíkš* and *Ala?ála* remain and are used confirms that these places are embedded in the CTUIR's culture. Hunn (1996:20) and others assert that place names contain a wealth of information and illustrate indigenous people's reliance on the land and its resources. When these place names are used they are acting as an archive of deeprooted knowledge and link the present and the past in their use (Banks 2002:209, Hunn 1996:20). Tribal members believe places know their names, which were given by the Creator cannot be changed (OHP 243, Stevens and Palmer 1855).

These historic properties, *Ulíkš* and *Ala?ála*, will be directly affected by Montague Wind Power Facility's Request for Amendment 5 and there will also be indirect effects to the historic properties that will impact the viewshed beyound the footprint of the proposed developments. The changes proposed in Amendment 5 will ultimately cause a significant adverse effect to the integrity of design, setting, feeling, and association of both historic properties. These historic properties also have integrity of location, but that will not be effected by this project.

CTUIR elders believe that *Ulíkš* and *Ala?ála* each retain integrity of location, design, setting, feeling, and association, despite the changes that have already occurred at and around these historic properties. The construction of roads, powerlines, infrastructure, and towers for this project will be a significant adverse effect to the integrity of design, setting, feeling and association at *Ulíkš* and *Ala?ála*. For instance, the significance of these places continues today through ongoing use, stories, traditions, and the belief system that have been passed down through the generations. When constructed the Montague Wind project will create an audible intrusion, as the turbines turn and that will be constant disturbance. Diminishing the chances of solitude and quiet contemplation within this space. These quiet communications will be changed forever at this location after the construction of the project ultimately effecting the integrity of design, setting and feeling. Integrity of design, setting and feeling will also be impacted by the tower lights at night and by visible infrastructure during day time visits.

These locations are a physical link the CTUIR has with its history and religion and are important elements for perpetuating the CTUIR's ongoing cultural identity. The direct effects from this project include development and ground disturbance within the boundaries of the historic properties. The changes to the landscape with the addition of wind and solar infrastructure effect the integrity of these locations. There is also the possibility that buried archaeological materials could be located within the project area that are related to these historic properties that could be unearthed during project construction. The indirect effects will also have a singnificant impact to the the viewshed within the property and when viewing these areas from outside the historic properties boundaries. The project will alter the setting and feeling that exist at these historic properties today. The connection with the natural landscape and the unbroken skyline will no longer exist in some locations. The association *Ulíkš* and *Ala?ála* have with each other will be altered when the viewshed is changed.

CTUIR elders believe that *Ulíkš* and *Ala?ála* retain integrity, despite the changes that have already occurred at the historic properties. The CTUIR members have watched and experienced these changes over time. These locations endure despite the changes and they are the physical reminder of the place names, the resources located in these areas, stories, and the ceremonies/acts associated with these locations. When elders visit these sites to teach their children and grandchildren the sites' names and what people did there, it will be difficult to find a place where what they see is the same thing their grandparents saw when they were taught, and so far back to time immemorial. There will be another break between the people and the land they promised the Creator they would protect.

These places, *Ulíkš* and *Ala?ála*, are a physical connection to the tribe's past, between how members of the CTUIR lived before contact with non-Indian people and after contact with non-Indian people, to how they continue to use the landscape today. The physical and spiritual importance of these areas remains intact. This is a place the people promised to protect, in accordance with CTUIR traditions. Just as the CTUIR's history, culture, and traditions are intertwined, so are these traditional use areas. These areas are important to the CTUIR's traditional culture and spiritual way of life.

Prior to Admendment 4 the CRPP has been working with the project proponent to mitigate for adverse effects to a historic property of religious and cultural significance to the CTUIR that work is unfinished. Now we are presented with Admendment 5 and there are more potential developers that have not contacted the CRPP. Admendment 5 impacts have not been discussed with the new project proponent(s) on how they will impact *Ulíkš* and *Ala?ála*. This letter hopes to begin that conversation with developers that are not aware of the project's effects to a historic properties of religious and cultural significance to the CTUIR. These adverse effects should be mitigated for.

The CRPP would like the project proponent(s) to have a cultural resources monitor on site during the ground disturbing portion of the project(s). Having a cultural resource monitor working during the ground disturbing portions of the project construction will help assure our community that if there is an inadverent discovery during the construction that it will be handled in an appropriate manner. In locations that have been used for agriculture in the past it is likely that Moldboard plowing has been the primary tillage tool, like most of North America, since intensive agriculture started more than 150 years ago. Moldboard plowing at depths of 15–20 cm were common in the past. More recently some farmers are plowing at depths of 25–30 cm to eliminate plow pans created by these past pratices (Reicosky and Archer 2007:110). This means that common farming practices are penetrating the ground to an approximately depth of 12 inches. The CRPP's agrees with Reicosky and Archer (2007)

that the average agricultural field disturbance is close to 12 inches and that any construction plans that require going beyond that depth are likely impacting undisturbed portion of the subsurface by past farming. On the plateau it is not uncommom for precontact archaeological sites to be buried by a 100 cm or more of soil.

If your office requires additional information or explanation of any of the information present in this memo please contact Shawn Steinmetz, Archaeologist, at <u>ShawnSteinmetz@ctuir.org</u> or me.

Bibliography

Banks, Judy

2002 Studying the Meaning of Place. *Journal of Northwest Anthropology*, 36 (2):203-211.

Hunn, Eugene S.

- 1996 Columbia Plateau Indian Place Names: What Can They Teach Us? Journal of Linguistic Anthropology, 6 (1):3-26.
- Hunn, Eugene S., E. Thomas Morning Owl, Philip E. Cash Cash, and Jennifer Karson Engum
 2015 Čáw Pawá Láakni *They are Not Forgotten: Sahaptian Place Names Atlas of the Cayuse, Umatilla, and Walla Walla*. Tamástslikt Cultural Institute, Pendleton, Oregon.

OHP 243

2008 *OHP 243 Oral History Interview*, CRPP Oral History Project. On file at the Confederated Tribes of the Umatilla Indian Reservation Cultural Resources Protection Program, Mission, Oregon.

Reicosky, D.C., and D.W. Archer

2007 Moldboard Plow Tillage Depth and Short-term Carbon Dioxide Release. Soil & Tillage Research, 94:109-121.

Stevens, Isaac I. and Joel Palmer

1855 A True Copy of the Record of the Official Proceedings at the Council in the Walla Walla Valley, held jointly by Isaac I. Stevens, Gov. and Supt. W.T. and Joel Palmer, Supt. Indian Affairs O.T. on the Part of the United States with the Tribes of Indians Named in the Treaties made at that Council, June 9th and 11th, 1855. On file at the Confederated Tribes of the Umatilla Indian Reservation Cultural Resources Protection Program, Mission, Oregon.

From:	Shawn Steinmetz <shawnsteinmetz@ctuir.org></shawnsteinmetz@ctuir.org>
Sent:	Tuesday, July 21, 2020 11:52 AM
То:	ESTERSON Sarah * ODOE
Subject:	RE: Contact Information for Matt Hutchinson Avangrid

Sarah:

The CRPP will continue to work with Avangrid to mitigate the effects to the HPRCSIT outside of the State process. We do not feel that conditions need to be added to the request for amendment. If you need additional information please call me @ 541-240-9206. Thanks,

Shawn

Shawn Steinmetz Archaeologist Confederated Tribes of the Umatilla Indian Reservation Cultural Resources Protection Program 46411 Timine Way Pendleton, Oregon 97801 (541) 429-7963 shawnsteinmetz@ctuir.org

From: ESTERSON Sarah * ODOE [mailto:Sarah.Esterson@oregon.gov]
Sent: Tuesday, July 21, 2020 11:20 AM
To: Shawn Steinmetz <ShawnSteinmetz@ctuir.org>
Subject: Contact Information for Matt Hutchinson Avangrid

EXTERNAL EMAIL: Please use caution when clicking links or opening attachments.

Matt Hutchinson Senior Permit Manager

1125 NW Couch St., Suite 700, Portland, OR 97209 Telephone 503.478.6317 Cell 503.701.0665 matthew.hutchinson@avangrid.com



Sarah T. Esterson Senior Siting Analyst 550 Capitol St. NE | Salem, OR 97301 P: 503-373-7945 C: 503-385-6128 P (In Oregon): 800-221-8035

Stay connected!

The opinions expressed by the author are his or her own and are not necessarily those of the Confederated Tribes of the Umatilla Indian Reservation. The information, contents and attachments in this email are Confidential and Private.



Matt Hutchinson Sr. Permit Manager

July 23, 2020

VIA EMAIL

Sarah Esterson Oregon Department of Energy 550 Capitol St. NE, 1st Floor Salem, OR 97301

Re: Certificate Holder Response to Draft Proposed Order on Amendment Request #5

Dear Sarah:

On behalf of Montague Wind Power Facility, LLC ("Montague"), this letter provides Montague's comments and requested revisions to the Draft Proposed Order ("DPO"). This letter also contains Montague's responses to comments received on the DPO for Request for Amendment 5 of the Site Certificate for the Montague Wind Power Facility, dated June 26, 2020 ("RFA5").

Requested Revisions to the DPO:

Montague proposes the following revisions to recommended and recommended amended conditions and provides reasoning for why, with the proposed revisions, Montague still meets the applicable EFSC standards.

Organizational Expertise: OAR 345-022-0010

On page 31 of the DPO, the Oregon Department of Energy (Department) recommends that the Energy Facility Siting Council (Council) adopt recommended Condition 118 in the Montague Wind Power Facility, Montague Solar and Oregon Trail Solar Facility site certificates.

Montague maintains that subpart (b) of Recommended Condition 118 is unnecessary and can possibly triple the amount of process needed to make modifications to shared facilities. Instead, Montague proposes that the certificate holder with primary control over the shared facility (e.g., Montague Wind for the Montague Wind collector substation) would be responsible for pursuing an amendment for any required modification. That amendment would then be reflected in the Montague Wind site certificate, however, the Montague Solar and Oregon Trail Solar site certificates would still require each certificate holder to account for the modification in calculating decommissioning costs if that certificate holder ended up being responsible for decommissioning (e.g., by way of the "true up" provided in subpart (c) of the Department's proposed condition). In addition, Montague proposes revisions to subpart (a) that provide a figure illustrating the shared facilities pursuant to the executive shared facilities agreement (like what was provided in Exhibit B) which is a more useful tool for compliance than evidence of the shared facilities agreement.

Montague Wind Power Facility

Recommended Condition 118: <u>The site certificate authorizes shared use of</u> related or supporting facilities including the Montague Wind collector substation, 230 kV transmission line, access roads, and temporary staging areas under the site certificates issued for the Montague Wind Facility, Montague Solar Facility and Oregon Trail Solar Facility.

- a. <u>Within 30 days of shared use, the certificate holder must provide a figure evidence to</u> <u>the Department identifying the facilities subject to that the certificate holders have an</u> <u>executed shared facilities agreement for shared use of facilities.</u>
- b. If certificate holders of Montague Wind, Montague Solar or Oregon Trail Solar Facility propose to substantially modify any of the shared facilities listed in sub(a) of this condition, each certificate holder shall submit an amendment determination request or request for site certificate amendment to obtain a determination from the Department on whether a site certificate amendment is required or to process an amendment for both site certificates.
- *e.b.* Prior to facility decommissioning or if facility operations cease, each certificate holder shall submit an amendment determination request or request for site certificate amendment to document continued ownership and full responsibility, including coverage of full decommissioning amount of the shared facilities in the bond or letter of credit pursuant to Condition 32, for the operational facility, if facilities are decommissioned at different times.

Montague Solar and Oregon Trail Solar Facilities

Recommended Condition 118: The site certificate authorizes shared use of related or supporting facilities including the Montague Solar collector substation, Montague Solar O&M building, battery storage system, 230 kV transmission line, access roads, and temporary staging areas under the site certificates issued for the Montague Solar Facility and Oregon Trail Solar Facility. The site certificate authorizes shared use of related or supporting facilities including the Montague Wind collector substation under the site certificates issued for the Montague Wind Facility, Montague Solar Facility and Oregon Trail Solar Facility.

a. <u>Within 30 days of shared use, the certificate holder must provide a figure evidence to</u> <u>the Department identifying the that facilities subject to the certificate holders have an</u> <u>executed shared facilities agreement for shared use of facilities.</u>

- b. If certificate holders of Montague Solar or Oregon Trail Solar Facility propose to substantially modify any of the shared facilities listed in sub(a) of this condition, each certificate holder shall submit an amendment determination request or request for site certificate amendment to obtain a determination from the Department on whether a site certificate amendment is required or to process an amendment for both site certificates. The request may be consolidated as a single request on behalf of all three certificate holders.
- *e.b.* Prior to facility decommissioning or if facility operations cease, each certificate holder shall submit an amendment determination request or request for site certificate amendment to document continued ownership and full responsibility, including coverage of full decommissioning amount of the shared facilities in the bond or letter of credit pursuant to Condition 32, for the operational facility, if facilities are decommissioned at different times.

Land Use: OAR 345-022-0030

On page 62 of the DPO, the Department recommends that the Council adopt new recommended condition 118 regarding outdoor sign regulations in the Montague Wind Power Facility, Montague Solar Facility, and Oregon Trail Solar Facility site certificates. As described in ASC Exhibit K, Montague may include signage to identify access points to the Facility and will design signage in a manner consistent with the specifications of Gilliam County Zoning Ordinance (GCZO) 8.050. The Council has not previously imposed a condition to address sign requirements under GCZO 8.050. Montague will maintain consistency with the County's sign requirements through submittal of the condition use permit and zoning-development permit applications made to the County prior to Facility construction. As such, Montague proposes that recommended condition 118 is not necessary and may be removed.

Montague Wind Power Facility, Montague Solar Facility and Oregon Trail Solar Facility

Recommended Condition 118: <u>Prior to construction and operation of the</u> facility, the certificate holder shall identify the number of outdoor signs and applicable Gilliam County Zoning Ordinance (GCZO) Section 8.050 Sign Regulation provisions and provide to the Department and Gilliam County Planning Department written confirmation that outdoor signage complies with the applicable provisions.

Fish and Wildlife Habitat: OAR 345-022-0060

RFA5 proposes to remove requirements applicable to wind from the Montague Solar Facility's Wildlife Monitoring and Mitigation Plan provided in Attachment F to the DPO. Because it is unlikely that the proposed PV solar array will result in significant impacts to birds, Montague requests that the following language be removed from lines 32 through 34 on page F-12 of the Montague Solar Facility's Wildlife Monitoring and Mitigation Plan provided in Attachment F to the DPO. Specifically:

Solar Array

After consideration of potential risk factors, the collision risk to birds from the facility solar array infrastructure will likely be low. Most importantly, the PV array, as proposed, will be located in disturbed habitat, will have only down-shielded lighting, will not have guy wires, and will not have any structures exceeding 15 feet (4.6 meters) in height (the greatest height of PV panels at full rotation). However, the certificate holder will consult with the Department and ODFW to confirm the extent of fatality monitoring that should be conducted for the solar facility.

Public Services: OAR 345-022-0110

On page 130 of the DPO, the Department recommends that the Council amend Condition 60 in the Montague Solar and Oregon Trail Solar Facility site certificates to require that, "the fire safety plan specifically address worker training requirements, inspections (type and frequency), vegetation management, fire prevention and response equipment, and agreements for mutual assistance in fire response to the expanded solar micrositing area." The Department bases this recommendation in part on Montague's statement in the ASC Exhibit U to provide mutual assistance for fire response. Montague previously obtained written confirmation from the North Gilliam County Rural Fire Protection District that the Facility was not expected to impact their ability to provide fire protection services. In Section U.6.2.10 of ASC Exhibit U, Montague included a statement to provide mutual assistance in the case of fire within or around the Facility site boundary. Montague will maintain annual coordination with the North Gilliam County Rural Fire Protection District per Condition 60 and is not aware of a request from the district to revise or amend the existing Condition 60. Therefore, Montague proposes modifying recommended amended Condition 60 to include discussion of fire prevention response and the potential for mutual assistance in the case of fire within or around the Facility site boundary during annual coordination with the fire district. This language more accurately reflects Montagues discussion to date with the fire district.

Montague Solar and Oregon Trail Solar Facilities

Recommended Amended Condition 60: During construction and operation of the facility, the certificate holder shall develop and implement fire safety plans in consultation with the North Gilliam County Rural Fire Protection District to minimize the risk of fire and to respond appropriately to any fires that occur on the facility site. In developing the fire safety plans, the certificate holder shall take into account the dry nature of the region and shall address risks on a seasonal basis. For solar facility components, the certificate holder shall address worker training requirements, inspections, vegetation management, fire prevention and response equipment and agreements with fire districts for mutual assistance in fire response. The certificate holder shall meet annually with local fire protection agency personnel to discuss fire prevention response and emergency planning, potential mutual assistance in the case of fire within or around the Facility site boundary, and shall invite local fire protection agency personnel to observe any emergency drill or tower rescue training conducted at the facility.

Responses to Agency Comments on the DPO:

Montague provides the following responses to demonstrate that notwithstanding the issues raised in agency comment, the proposed Facility amendments in RFA5 meet the applicable EFSC standards, subject to conditions proposed in the DPO and addressed herein.

Confederated Tribes of the Umatilla Indian Reservation

Montague will continue to work with the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) outside of the EFSC process to mitigate for effects to historic properties of religion and cultural significance consistent with the agreement outlined in an email from Shawn Steinmetz, Archaeologist for CTUIR to the Department dated July 21, 2020.

Morrow County

In response to Morrow County's letter provided to the Department on July 20, 2020, Montague spoke with Matt Scrivner, Morrow County Public Works Director, and confirmed that Montague will not use Morrow County roads for any construction related to the Montague Solar Facility or Oregon Trail Solar Facility. The attached correspondence confirms that Morrow County will not require a road use agreement as no Morrow County roads are proposed for use during construction of the facilities (Attachment 1).

Oregon Department of Aviation

In response to the Oregon Department of Aviation (ODA) email provided to the Department on May 27, 2020, Montague will provide the Department with coordinate and height data for transmission structures and switching station components associated with Montague Solar and Oregon Trail Solar facilities to undergo airspace analysis by the ODA. Montague notes that proposed transmission line for Montague Solar and Oregon Trail Solar is more than 10 miles from the Arlington Airport not 3 miles as represented by ODA's comment letter, and that proposed structures are less than 200 feet, which is below the notification requirement of OAR 738-070-0070(1)(a).

Oregon Department of Fish and Wildlife

In response to the Oregon Department of Fish and Wildlife (ODFW) email provided to the Department on May 28, 2020, Montague provides a summary of a fatality study from Avangrid Renewables' Gala Solar facility in Prineville, OR. This study found low bird mortality at a solar project in Oregon, and no observations of obligate water birds.

- One-year study led by Kosciuck (same author referenced by ODFW's comments)
- 7-day search interval in nine transects that covered 50% of the array area.
- Three bird mortalities detected: horned lark, dark-eyed junco, and chukar. These are ground-associated species that are wide-spread species in Oregon. Chukar is an introduced, non-native species.
- No fatality estimate was calculated due to the low number of observations. Generally, at least four detections are needed to calculate a meaningful estimate. Regardless, the very low number of native species (2 birds) found over the yearlong study suggests that avian mortality events at solar projects in Oregon are rare.

As referenced by ODFW, Kosciuch et al. (2020) reviewed 10 post-construction fatality in California and found that water-obligate birds occurred in 9 of 10 studies in the Sonoran and Mojave Deserts bird conservation region (BCR), and accounted for up to 28% of bias-adjusted species composition in one study. But these projects are located near the Salton Sea, which is an important stop over site for migrating water birds. In contrast, water-obligate birds were uncommon in the Coastal California and Great Basin BCR studies, occurring in only one study and accounting for only 0.75% of bias-adjusted species composition. No water birds were detected at the Gala Solar study in Oregon, so it reasonable to conclude that the Montague Solar and Oregon Trail Solar will have similar results.

Montague does not believe that a post-construction fatality study is needed for Montague Solar or Oregon Trail Solar (i.e., solar only) because bird mortality at solar projects is low and the effort to undertake these studies is unnecessary. These types of studies are expensive due the biologist's labor hours (e.g. weekly for a year), and can have logistical challenges. For example, increased mowing to maintain suitable viewsheds can also limit revegetation efforts that can lead to dust problems or weed infestations.

Oregon State Historic Preservation Office

In response to the Oregon State Historic Preservation Office (SHPO) letter provided to the Department on July 17, 2020, Montague acknowledges the proposed expansion of the Montague Solar Facility will diminish the integrity of setting, feeling, and association on the historic property known as the Weatherford Barn.

Previously agreed upon mitigation options are documented in the draft Historical Resource Mitigation Plan (HRMP) provided in Attachment H to the DPO. Montague agrees to reinitiate consultation with SHPO to appropriately adjust or "scale up" proposed mitigation in the event that final design of the Montague Solar Facility surrounds the Weatherford Barn. Consistent with Condition 47(b), Montague will submit for review and approval by the Department in consultation with SHPO, a final HRMP with mitigation options adjusted to reduce significant adverse impacts to the Weatherford Barn.

Oregon Department of State Lands

In response to the Oregon Department of State Lands (ODSL) email provided to the Department on July 13, 2020, Montague acknowledges that work not covered by an active, concurred delineation, will require a new wetland delineation prior to construction. For portions of the expanded solar micrositing area that are not field surveyed, Montague will comply with Condition 83 which ensures unsurveyed areas are surveyed prior to construction, and that concurrence from DSL is obtained to verify accurate identification of jurisdictional waters, and avoidance unless removal-fill permit is obtained. Montague has initiated these surveys and expects to submit its wetland delineation report later this year.

Thank you for providing Montague the opportunity to submit a written response to comments and legal argument to support approval of RFA5 subject to conditions. We maintain that all substantive agency and public comments are addressed and there are no new issues of fact or law that further analysis to approve the Fifth Amended Site Certificate for the Montague Wind Power Facility.

Sincerely,

/s/ Matt Hutchinson

Matt Hutchinson

Enclosures

cc: Brian Walsh/Avangrid Renewables Elaine R. Albrich/ DWT Paul Hicks/Jacobs Engineering Group Inc. Attachment 1 – Morrow County Correspondence

Hutchinson, Matthew

From:	Matt Scrivner <mscrivner@co.morrow.or.us></mscrivner@co.morrow.or.us>
Sent:	Monday, July 20, 2020 3:41 PM
То:	Lockard, Alex
Cc:	Hutchinson, Matthew; Olson, Ray; Kester, Benjamin; Walsh, Brian; Stephanie Case;
	Stephen Wrecsics; Darrell Green
Subject:	EXTERNAL: RE: Montague Solar - Road Use Agreement

Alex

As per our phone conversation and reviewing your map I agree that you will not be using any Morrow County roads and there is no need for a road use agreement. If your plans change and Morrow County roads are needed please reach back to me for an agreement.

Matt Scrivner

Public Works Director Morrow County Public Works 365 W. Hwy 74 Lexington, Oregon 97839 1-541-989-8584 (office) 1-541-980-7468 (cell)

From: Lockard, Alex [mailto:alex.lockard@avangrid.com]
Sent: Monday, July 20, 2020 3:27 PM
To: Matt Scrivner <mscrivner@co.morrow.or.us>
Cc: Hutchinson, Matthew <matthew.hutchinson@avangrid.com>; Olson, Ray <Ray.Olson@avangrid.com>; Kester, Benjamin <benjamin.kester@avangrid.com>; Walsh, Brian <Brian.Walsh@avangrid.com>
Subject: Montague Solar - Road Use Agreement

STOP and VERIFY - This message came from outside of Morrow County Government.

Hi Matt,

Per our phone conversation this afternoon, in response to the letter received today from Morrow County via ODOE (see attached), I am attaching our DRAFT Road Use Agreement figure that we will use in our agreement with **Gilliam County**. Unlike the Montague *Wind* project, where blades were transported from Boardman along I-84 and then south on Hwy 74, then to the site approximately 12-20 miles south of Arlington, the Montague *Solar* project should not have any deliveries coming from the east. Thus, we expect that all of our deliveries will originate in or around Portland/Vancouver, then travel east along I-84 to Arlington, then south along OR 19 to the site. No project-related loads are expected to use any Morrow County roads.

Please confirm your acceptance and agreement that a **<u>Road Use Agreement with Morrow County is unnecessary</u> for the Montage Solar project.**

Thank you.



Alex Lockard, P.E. Project Civil Engineering Manager Engineering and Construction Services

1125 NW Couch St, Suite 700, Portland, OR 97209 Desk 503.796.6973 Mobile 503.208.0474 <u>Alex.Lockard@Avangrid.com</u>

Internal Use

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Attachment D Draft Amended Habitat Mitigation Plans

Draft Amended Montague Wind Facility Habitat Mitigation Plan Draft Montague Solar Facility Habitat Mitigation Plan Draft Oregon Trail Solar Facility Habitat Mitigation Plan Draft Amended Montague Wind Facility Habitat Mitigation Plan

Montague Wind Power Facility: <u>Amended</u> Habitat Mitigation Plan

AUGUST 2017 Amended XX 2020

I. Introduction

This plan describes methods and standards for preservation and enhancement of an area 2 of land near the Montague Wind Power Facility (MWPF) to mitigate for the impacts of the 3 facility on wildlife habitat.¹ The certificate holder will construct the facility in two phases. This 4 plan addresses mitigation for both the permanent impacts of facility components and the 5 temporal impacts associated with the first phase (Phase 1) of facility construction. The 6 certificate holder shall protect and enhance the mitigation area as described in this plan. This 7 plan specifies habitat enhancement actions and monitoring procedures to evaluate the success of 8 those actions. Remedial action may be necessary if progress toward habitat enhancement success 9 10 is not demonstrated in the mitigation area.

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This plan was approved in September 2010 as part of the Energy Facility Siting Council's (EFSC) Final Order on the Application for Site Certificate for the Montague Wind Power Facility (Final Order on ASC). Final Order on ASC approved construction and operation of a 404 megawatt (MW) wind energy generation facility, to be developed in phases (Phase 1 and Phase 2). The plan was finalized in August 2017, prior to construction of Phase 1. In XX, 2020, the Council approved Final Order on Request for Amendment 5 of the Montague Wind Power Facility site certificate (Final Order on RFA5), authorizing amendment of the Montague Wind Power Facility site certificate to cover only Phase 1 facility components; and, previously approved facility components (Phase 2) to be allocated under original site certificates for facilities named Montague Solar Facility and Oregon Trail Solar Facility.

This plan is based on the plan finalized prior to Phase 1 facility construction (August 2017), revised accordingly to describe and apply to the facility components allocated in the Montague Wind Power Facility, as approved in Final Order on RFA5. The Montague Wind Power Facility is a 201 MW wind energy facility, including 56 wind turbines, located in northeastern Gilliam County. The Montague Wind Power Facility resulted in permanent impacts to Category 2, 3 and 4 habitat. Mitigation requirements are described in the following sections.

12 II. Description of the Impacts Addressed by the Plan

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- The land area that will be occupied by permanent facility components
- 14 (the "footprint") is approximately 79 acres, based on the final design configuration
- 15 for Phase 1 of the MWPF. In addition to the footprint impacts, construction of Phase 1 of the
- 16 facility could disturb approximately 658 acres. Although much of the area is cropland,
- 17 habitat that will be affected by construction disturbance includes areas of perennial
- 18 bunchgrass, and desirable shrubs. After disturbance, the recovery of perennial
- 19 bunchgrass species to a mature stage might take five to seven years; recovery of
- desirable shrubs such as bitterbrush and sagebrush might take ten to 30 years to reach maximum
- 21 height and vertical branching. Even where recovery of these habitat subtypes is successful, there
- is a loss of habitat quality during the period of time needed to achieve recovery (temporal
- <u>23</u> impact).

2324

MONTAGUE WIND POWER FACILITY FINAL ORDER – ATTACHMENT DG

2425 III. Calculation of the Size of the Mitigation Area

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2627 Before beginning construction on Phase 1-of the facility, the certificate holder shall provide to the Oregon Department of Energy (Department) a map showing the final design configuration of Phase 1 of the facility and a table showing the estimated areas of permanent impacts and construction area impacts on habitat (by category, habitat types and habitat subtypes). The certificate holder shall calculate the size of the mitigation area, as illustrated below, based on the final design configuration of Phase 1 of the facility. The certificate holder shall implement the habitat enhancement actions described in this plan, after the Department has approved the size of the mitigation area. This plan does not address additional mitigation that is required under the Montague Wind Power Facility Wildlife Monitoring and Mitigation Plan.

The mitigation area must be large enough to meet the habitat mitigation goals and standards of the Oregon Department of Fish and Wildlife (ODFW) described in OAR 635-415-

¹ This plan is incorporated by reference in the site certificate for the Montague Wind Power Facility and must be understood in that context. It is not a "stand-alone" document. This plan does not contain all mitigation required of the certificate holder.

1 0025. The ODFW goals require mitigation to achieve "no net loss" of habitat in Categories 2, 3 2 and 4 and a "net benefit" in habitat quantity or quality for impacts to habitat in Categories 2 and

5. The MWPF would not have any impacts on Category 1 or Category 5 habitats.

4 For the footprint impacts, the mitigation area includes two acres for every one acre of

5 Category 2 habitat affected (a 2:1 ratio) and one acre for every acre of footprint impacts to

6 Category 3 and 4 habitat (a 1:1 ratio). The 2:1 ratio for Category 2 is intended to meet the

ODFW goals of "no net loss" and "net benefit" of habitat quantity for impacts to Category 2
habitat. The 1:1 ratio for the footprint impacts to Category 3 and 4 habitat is intended to meet the

habitat. The 1:1 ratio for the footprint impacts to Category 3 and 4 habitat is intended to 1
ODFW goal of "no net loss" of habitat in these categories.

To mitigate for construction impacts outside the footprint, the mitigation area includes ¹/₂
 acre for every acre of Category 2 or Category 3 SSA (sagebrush shrub- steppe habitat affected (a 0.5:1 ratio). This portion of the mitigation area is intended to address the temporal loss of habitat quality during the recovery of SSA habitat disturbed during construction. The size of this portion of the mitigation area assumes that restoration of disturbed SSA-habitat is successful, as determined under the Montague Wind Power Facility Revegetation Plan. If the revegetation success criteria are not met in the affected areas, then the Council may require the certificate holder to provide additional mitigation.

Areas of potential impact within each affected habitat category and the corresponding mitigation area for each category are calculated as follows, based on maximum habitat impact estimates for Phase 1:²

16	Category 2
17	Footprint impacts: 3.77 acres
18	Temporary impacts to SSA1.43 acres
19 26	Mitigation area requirement: $(3.77 \text{ acres } x 2) + (1.43 \text{ acres } x 0.5) = 8.26 \text{ acres}$
27	Category 3
28	Footprint impacts: 5.30 acres
29	Temporary impacts to SSA: 0.53 acre
30 31	Mitigation area requirement: $5.30 \text{ acres} + (0.53 \text{ acre } x 0.5) = 5.56 \text{ acres}$
32	Category 4
33	Footprint impacts: 2.33 acres
34	Mitigation area requirement: 2.33 acres
35 36	Total mitigation area for Phase 1 of the MWPF (rounded up to nearest whole acre): (16.8) acres

MONTAGUE WIND POWER FACILITY-FINAL-ORDER – ATTACHMENT DG

IV. Description of the Mitigation Area

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The certificate holder has selected a mitigation area in proximity to the facility 2 where habitat protection and enhancement are feasible consistent with this plan.³ The applicant 3 has identified a 440-acre parcel in a relatively remote setting where habitat protection and 4 enhancement are feasible.⁴ Conservation easements for other wind energy facilities have been 5 established within the 440-acre parcel, and the applicant has an option for establishing a 6 7 conservation easement for the MWPF on the remaining acres.⁵ If sufficient land for Phase 1 of the MWPF mitigation area is not acquired within the 440-acre parcel, the certificate holder shall 8 select other land that is suitable for meeting the mitigation area requirement consistent with this 9 plan. Before beginning construction of Phase 1of the facility, the certificate holder shall 10 determine the final size of the mitigation area needed for Phase 1 of the facility. The certificate 11 holder shall determine the location and boundaries of the mitigation area in consultation with 12 ODFW and the affected landowners and subject to the approval of the Department. The final 13 mitigation area must contain suitable habitat to achieve the ODFW goals of no net loss of habitat 14 in Categories 2, 3 and 4 and a net benefit in habitat quantity or quality for impacts to Category 2 15 habitat through appropriate enhancement actions. Before beginning construction of Phase 1 of 16 the facility, the certificate holder shall acquire the legal right to create, maintain and protect the 17 habitat mitigation area for the life of the facility by means of an outright purchase, conservation 18 easement or similar conveyance and shall provide a copy of the documentation to the 19 20 Department.⁶

21 V. Habitat Enhancement Actions

The objectives of habitat enhancement are to protect habitat within the mitigation area from 22 degradation and to improve the habitat quality of the mitigation area. By achieving these goals, 23 the certificate holder can address the permanent and temporal habitat impacts of Phase 1 of the 24 MWPF and meet the ODFW goals of no net loss of habitat in Categories 2, 3 and 4 and a net 25 benefit in habitat quantity or quality for impacts to Category 2 habitat. The certificate holder 26 shall initiate the habitat enhancement actions for Phase 1 of the facility as soon as 27 the size of the mitigation area has been determined and approved by the Department. The 28 certificate holder shall implement the following enhancement 29 actions: 30

Modification of Livestock Grazing Practices. The certificate holder shall restrict grazing
 within the habitat mitigation area. Eliminating livestock grazing within the mitigation
 area during most of the year will enable recovery of native bunchgrass and sagebrush in
 areas where past grazing or recent (2008) wildfires have occurred, resulting in better

³ OAR 635-415-0005 defines "in-proximity habitat mitigation" as follows: "habitat mitigation measures undertaken within or in proximity to areas affected by a development action. For the purposes of this policy, 'in proximity to' means within the same home range, or watershed (depending on the species or population being considered) whichever will have the highest likelihood of benefiting fish and wildlife populations directly affected by the development."

⁴ The 440-acre parcel is described in Section IV.4.(b)(F) of the *Final Order on the Application for the Leaning Juniper II Wind Power Facility*, September 21, 2007, pp. 97-100.

⁵ The 440-acre parcel is shown in Figures P-10 and P-11 of the MWPF site certificate application.

⁶ As used in this plan, "life of the facility" means continuously until the facility site is restored and the site certificate is terminated in accordance with OAR 345-027-0110.

vegetative structure and complexity for a variety of wildlife. Reduced livestock grazing may be used as a vegetation management tool, limited to the period from February 1 through April 15.

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2) Shrub Planting. The certificate holder shall plant sagebrush shrubs in locations where existing sagebrush is stressed or where recent (2008) wildfires have occurred. The certificate holder shall determine the size of the shrub-planting areas based on the professional judgment of a qualified biologist after a ground survey of actual conditions. The size of the shrub-planting areas will depend on the available mitigation area and opportunity for survival of planted shrubs. The shrub survival rate at four years after planting is an indicator of successful enhancement of habitat quality to Category 2. The certificate holder shall plant at least 2 acres of sagebrush.

Although a minimum 2-acre area of shrub planting is anticipated, the certificate holder may choose to plant a larger area. The certificate holder shall complete the initial sagebrush planting within one year after the beginning of construction of Phase 1 of the MWPF. Supplementing existing, but disturbed, sagebrush areas with sagebrush seedlings would assist the recovery of this valuable shrub-steppe component. The certificate holder shall obtain shrubs from a qualified nursery or grow shrubs from native seeds gathered from the mitigation area. The certificate holder shall identify the area to be planted with sagebrush shrubs after consultation with ODFW and subject to final approval by the Department. The certificate holder shall mark the planted sagebrush clusters at the time of planting for later monitoring purposes and shall keep a record of the number of shrubs planted.

3) Weed Control. The certificate holder shall implement a weed control program. Under the weed control program, the certificate holder shall monitor the mitigation area 23 to locate weed infestations. The certificate holder shall continue weed control monitoring, 24 as needed, for the life of the facility. As needed, the certificate holder shall use 25 26 appropriate methods to control weeds. Weed control on the mitigation site will reduce the spread of noxious weeds within the habitat mitigation area and on any nearby grassland, 27 CRP or cultivated agricultural land. Weed control will promote the growth of desirable 28 29 native vegetation and planted sagebrush. The certificate holder may consider weeds to be

successfully controlled when weed clusters have been eradicated or reduced to a noncompeting level. Weeds may be controlled with herbicides or hand-pulling. The certificate holder shall notify the landowner of the specific chemicals to be used on the site and when spraying will occur. To protect locations where young desirable forbs may be growing, spot-spraying may be used instead of total area spraying.

- 6 5)4) Fire Control. The certificate holder shall implement a fire control plan for wildfire suppression within the mitigation area. The certificate holder shall provide a copy of the 7 fire control plan to the Department before starting habitat enhancement actions. The 8 certificate holder shall include in the plan appropriate fire prevention measures, methods 9 to detect fires that occur and a protocol for fire response and suppression. The certificate 10 holder shall maintain fire control for the life of the facility. If any part of the mitigation 11 area is damaged by wildfire, the certificate holder shall assess the extent of the damage 12 and implement appropriate actions to restore habitat quality in the damaged area. 13
- 6)5) Nest platforms. The certificate holder shall construct at least one artificial raptor
 nest platform in the mitigation area tailored to the opportunities of the site, using best
 professional judgment of raptor use in the general area. The certificate holder may
 construct more than one nest platform based on the availability of suitable locations. The
 certificate holder shall maintain the nest platforms for the life of the facility.
- Habitat Protection. The certificate holder shall restrict uses of the mitigation area
 that are inconsistent with the goals of no net loss of habitat in Categories 2, 3 and 4 and a
 net benefit in Categories 2 habitat quantity or quality.

22 VI. Monitoring

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23 **1. Monitoring Procedures**

The certificate holder shall hire a qualified investigator (an independent botanist, wildlife biologist or revegetation specialist) to conduct a comprehensive monitoring program for the mitigation area. The purpose of this monitoring is to evaluate on an ongoing basis the protection of habitat quality, the results of enhancement actions and the use of the area by avian and mammal species, especially during the wildlife breeding season.

The investigator shall monitor the habitat mitigation area for the life of the facility beginning in the year following the initial sagebrush planting. The investigator shall visit the site as necessary to carry out the following monitoring procedures:

- Annually assess vegetation cover (species, structural stage, etc.) and progress toward meeting the success criteria.
 Annually record environmental factors (such as precipitation at the time of surveys and precipitation levels for the year).
- 36 3) Annually record any wildfire that occurs within the mitigation area and any remedial
 37 actions taken to restore habitat quality in the damaged area.
- 4) Annually assess the success of the weed control program and recommend remedial
 action, if needed.
- 40 5) Assess the recovery of native bunchgrass and natural recruitment of sagebrush
 41 resulting from removal of livestock grazing pressure and recovery post-fire by

 monitoring visit with the quality observed in previous monitoring visits and as observed when the mitigation area was first established. The investigator shall establish photo plots of naturally recovering sagebrush and native bunchgrass during the first year following the beginning of construction of the MWPF. The investigator shall take comparison photos in the first year and in every other year thereafter until resubject vegetation has achieved mature stature. The investigator shall determine the extent of successful recovery of native bunchgrass based on measurable indicato (such as signs of more abundant seed production) and shall report on the progress of recovery within in the monitoring plots. The investigator shall report on the timing and extent of any livestock grazing that has occurred within the mitigation area since the previous monitoring visit. 6) Assess the survival rate and growth of planted sagebrush. At the time of planting, sagebrush clusters will be marked for monitoring. The investigator shall select several planted clusters for photo monitoring monitoring visit. The certificate holder shall determine the number of clusters to be photo-monitored at the time of planting in consultation with the Department and ODFW, based on the number of clusters planted. The investigator shall take comparison photos in the firs year following the initial sagebrush has achieved mature stature. In each monitoring yea the investigator shall determine and report the survival rate of planted sagebrush. Based on past experience of restoration specialists for other sagebrush planting projects, a survival rate as high as 50 percent can be achieved if there are years of high soil moisture, but a more typical survival rate is 2 surviving shuls per 10 planted (20 percent) after four years. Shrub planting will be considered successful if 20-percent survival rate is achieved after four years. The investigator shall escenses of high soil moisture, but a more typical	1	comparing the quality of bunchgrass and sagebrush cover at the time of each
3observed when the mitigation area was first established. The investigator shall4establish photo plots of naturally recovering sagebrush and native bunchgrass during5the first year following the beginning of construction of the MWPF. The investigator6shall take comparison photos in the first year and in every other year thereafter until7the subject vegetation has achieved mature stature. The investigator shall determine8the extent of successful recovery of native bunchgrass based on measurable indicato9(such as signs of more abundant seed production) and shall report on the progress of10recovery within in the monitoring plots. The investigator shall report on the timing11and extent of any livestock grazing that has occurred within the mitigation area since12the previous monitoring visit.136) Assess the survival rate and growth of planted sagebrush. At the time of planting,14sagebrush clusters will be marked for monitoring. The investigator15shall select several planted clusters for photo monitoring wisits. The17certificate holder shall determine the number of clusters to be photo-monitored at the18time of planting in consultation with the Department and ODFW, based on the19number of clusters planted. The investigator shall take comparison planted sagebrush has achieved mature stature. In each monitoring year20year following the initial sagebrush has achieved mature stature. In each monitoring year16long-distance of restoration specialists for other sagebrush planting21the surviving planted sagebrush has achiev	2	monitoring visit with the quality observed in previous monitoring visits and as
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7) Between April 21 and May 21 beginning in the first spring season after the beginning of construction of Phase 1 of the MWPF, the investigator will conduct an area search survey of avian species. An "area search" survey consists of recording all birds seen or heard in specific areas (for example, square or circular plots that are 5 to 10 acres in size). Area searches will be conducted during morning hours on days with low or no wind. The investigator shall determine the number searches and the number of search areas in consultation with ODFW. The investigator shall repeat the area search survey every five years during the life of the facility.

8) Beginning in the first year after the beginning of construction of Phase 1 of the MWPF and repeating every five years during the life of the facility, the investigator shall record observations of special status plant or wildlife species (federal or state threatened or endangered species and state sensitive species) during appropriate seasons for detection of these species.

The certificate holder shall report the investigator's findings and recommendations regarding the monitoring of the mitigation area to the Department and to ODFW on an annual basis. In the annual mitigation area report, the certificate holder shall describe all habitat mitigation actions carried out during the reporting year. The mitigation area report may be included as part of the annual report on the MWPF that is required by the site certificate.

19 2. Success Criteria

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Mitigation of the permanent and temporal habitat impacts of the facility may be considered successful if the certificate holder protects and enhances sufficient habitat within the mitigation area to meet the ODFW goals of no net loss of habitat in Categories 2, 3 and 4 and a net benefit in habitat quantity or quality for impacts to Categories 2 habitat. The certificate holder must protect the quantity and quality of habitat within the mitigation area for the life of the facility. ODFW has advised the Department that protection of habitat alone (without enhancement activity) will not meet the intent of the "net benefit" goal.

The certificate holder must protect a sufficient quantity of habitat in each category to 27 meet the mitigation area requirements calculated under Section III based on the final design 28 configuration for Phase 1 of the facility. The certificate holder shall determine the actual 29 mitigation area requirements for Phase 1 of the facility, subject to Department approval, before 30 beginning construction of Phase 1 of the facility. If the land selected for the mitigation area does 31 not already contain sufficient habitat in each category to meet these requirements, then the 32 certificate holder must demonstrate improvement of habitat quality sufficient to change lower-33 value habitat to a higher value (for example, to convert Category 3 habitat to Category 2). The 34 certificate holder may demonstrate improvement of habitat quality based on evidence of 35 indicators such as increased avian use by a diversity of species, survival of planted shrubs, 36 more abundant seed production of desirable native bunchgrass, natural recruitment 37 of sagebrush, and successful weed control. If the certificate holder cannot demonstrate that the 38 habitat mitigation area is trending toward the habitat quality goals described above within four 39 years after the initial sagebrush planting, the certificate holder shall propose remedial action. The 40 Department may require supplemental planting or other corrective measures. 41

After the certificate holder has demonstrated that the habitat quantity goals have been achieved, the investigator shall verify, during subsequent monitoring visits, that the mitigation

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area continues to meet the ODFW "no net loss" and "net benefit" goals described above. The
investigator shall recommend remedial action if the habitat quality within the mitigation area
falls below the habitat quantity goals listed above. The Department may require supplemental
planting, other corrective measures and additional monitoring as necessary to ensure that the
habitat quantity goals are achieved and maintained.

6 VII. Amendment of the Plan

This *Habitat Mitigation Plan* may be amended from time to time by agreement of the
certificate holder and the Oregon Energy Facility Siting Council ("Council"). Such amendments
may be made without amendment of the site certificate. The Council authorizes the Department
to agree to amendments to this plan. The Department shall notify the Council of all amendments,
and the Council retains the authority to approve, reject or modify any amendment of this plan
agreed to by the Department.

Draft Montague Solar Facility Habitat Mitigation Plan
Montague Wind PowerSolar Facility: Phase 2Draft Habitat Mitigation Plan [As AMENDED APRIL 2019XXX 2020]

1 I. Introduction

2 This plan describes methods and standards for preservation and enhancement of an area of land near the Montague Wind PowerSolar Facility (MWPF) to mitigate for the impacts of the 3 facility on wildlife habitat.¹ The certificate holder will construct the facility in two phases. This 4 plan addresses mitigation for both the permanent impacts of facility components and the 5 temporal impacts associated with the second phase (Phase 2) of facility construction. The 6 certificate holder shall protect and enhance the mitigation area as described in this plan. This 7 8 plan specifies habitat enhancement actions and monitoring procedures to evaluate the success of 9 those actions. Remedial action may be necessary if progress toward habitat enhancement success 10 is not demonstrated in the mitigation area.

This plan was approved in September 2019 as part of the Energy Facility Siting Council's 11 (EFSC) Final Order on Request for Amendment 4 of the Montague Wind Power Facility site 12 certificate (Final Order on RFA4). Final Order on RFA4 approved modifications to the 13 14 previously approved layout and specifications of wind facility components and the addition of approximately 1,189 acres of solar photovoltaic energy generation equipment. Within the 1,189 15 acres approved for solar facility components, the land was used for cultivation of dryland winter 16 wheat and was designated habitat Category 6. In XX, 2020, the Council approved Final Order on 17 Request for Amendment 5 of the Montague Wind Power Facility site certificate (Final Order on 18 RFA5), authorizing previously approved facility components (Phase 2) to be allocated under 19 original site certificates for facilities named Montague Solar Facility and Oregon Trail Solar 20 Facility. The site certificate issued for the Montague Solar Facility was based entirely on the 21 previously approved Montague Wind Power Facility site certificate; mitigation plans were based 22 entirely on those approved in the Final Order on RFA4; modifications were incorporated into the 23 site certificates and mitigation plans based on the allocation of previously approved facility 24 components, location and type of equipment. 25 This Habitat Mitigation Plan is based on the draft amended plan provided as Attachment 26 D of the Final Order on RFA4, revised accordingly to describe and apply to the Montague Solar 27 Facility. The Montague Solar Facility is a 162 megawatt (MW) solar photovoltaic energy facility 28 located within a 1,496 solar micrositing area and 1,763 acre site boundary, in northeastern 29 Gilliam County. The Montague Solar Facility would predominately result in permanent impacts 30 to Category 6 habitat; however, due to the sharing of related or supporting facilities with the 31 Montague Wind Power Facility and Oregon Trail Solar Facility, where impacts to habitat 32 Category 2, 3 or 4 could occur, the requirements of the plan apply. This plan will be finalized, 33

based on final facility layout and evaluation of habitat categories impacted, prior to construction.

35 II. Description of the Impacts Addressed by the Plan

The land area that will be occupied by permanent Phase 2-facility components will mostly be cropland, but also includes areas of perennial bunchgrass and desirable shrubs. After

¹ This plan is incorporated by reference in the site certificate for the Montague <u>Wind PowerSolar</u> Facility and must be understood in that context. It is not a "stand-alone" document. This plan does not contain all mitigation required of the certificate holder.

1 disturbance, the recovery of perennial bunchgrass species to a mature stage might take five to

2 seven years; recovery of desirable shrubs such as bitterbrush and sagebrush might take ten to

3 30 years to reach maximum height and vertical branching. Even where recovery of these habitat

- 4 subtypes is successful, there is a loss of habitat quality during the period of time needed to
- 5 achieve recovery (temporal impact).

6 III. Calculation of the Size of the Mitigation Area

7 Before beginning construction on Phase 2 of the facility, the certificate holder shall provide to the Oregon Department of Energy (Department) a map showing the final design 8 configuration of Phase 2 of the facility and a table showing the estimated areas of permanent 9 impacts and construction area impacts on habitat (by category, habitat types, and habitat 10 subtypes). The certificate holder shall calculate the size of the mitigation area, as illustrated 11 below, based on the final design configuration of Phase 2 of the facility. The certificate holder 12 13 shall implement the habitat enhancement actions described in this plan, after the Department has approved the size of the mitigation area. This plan does not address additional mitigation that is 14 15 required under the Montague Wind PowerSolar Facility Wildlife Monitoring and Mitigation Plan. 16

The mitigation area must be large enough to meet the habitat mitigation goals and standards of the Oregon Department of Fish and Wildlife (ODFW) described in Oregon Administrative Rule (OAR) 635-415-0025. The ODFW goals require mitigation to achieve "no net loss" of habitat quantity or quality in Categories 2, 3 and 4 and a "net benefit" in habitat quantity or quality for impacts to habitat in Categories 2 and 5. The <u>MWPF-Montague Solar</u> <u>Facility</u> would not have any impacts on Category 1 or Category 5 habitats. Impacts on Category 6 habitat does not require mitigation.

For the footprint impacts, the mitigation area includes two acres for every one acre of Category 2 habitat affected (a 2:1 ratio) and one acre for every acre of footprint impacts to Category 3 and 4 habitat (a 1:1 ratio). The 2:1 ratio for Category 2 is intended to meet the ODFW goals of "no net loss" and "net benefit" of habitat quantity or quality for impacts to Category 2 habitat. The 1:1 ratio for the footprint impacts to Category 3 and 4 habitat is intended to meet the ODFW goal of "no net loss" of habitat in these categories.

To mitigate for temporary construction impacts, the mitigation area includes 2 acres for 30 every acre of Category 2 SSA (sagebrush shrub-steppe) habitat affected (a 2:1 ratio) and 1 acre 31 for every Category 3 or Category 4 SSA habitat affected (a 1:1 ratio). This portion of the 32 mitigation area is intended to address the temporal loss of habitat quality during the recovery of 33 34 SSA habitat disturbed during construction. The size of this portion of the mitigation area assumes that restoration of disturbed SSA habitat is successful, as determined under the 35 Montague Wind PowerSolar Facility Revegetation Plan. If the revegetation success criteria are 36 not met in the affected areas, then the Oregon Energy Facility Siting Council ("Council") may 37 38 require the certificate holder to provide additional mitigation.

Areas of potential impact within each affected habitat category and the corresponding
 mitigation area for each category are calculated as follows, based on maximum high-quality
 habitat (Categories 2, 3, and 4) impact estimates for Phase 2 (Design Scenario A):²
 <u>Category 2</u>
 Footprint impacts: 2.10 acres

- 6 Temporary impacts to SSA: 0.2 acre
- 7 Mitigation area requirement: (2.10 acres x 2) + (0.2 acre x 2) = 4.60 acres
- 8 <u>Category 3</u>
- 9 Footprint impacts: 0.44 acre
- 10 Temporary impacts to SSA: 0.09 acre
- 11 Mitigation area requirement: 0.44 acre + (0.09 acre x 1) = 0.53 acre
- 12 <u>Category 4</u>
- 13 Footprint impacts: 0.09 acre
- 14 Mitigation area requirement: 0.09 acre
- 15Total mitigation area for Phase 2 (Design Scenario A) of the MWPF (rounded up to16nearest whole acre): 6 (5.22) acres

² Table 9 [Temporary and Permanent Disturbance by Habitat Category and Subtype – Phase 2 Design Scenario A (Maximum Wind Layout)] in Attachment P-11 (Avian Use and Habitat Disturbance Supporting Data) of Exhibit P in Request for Amendment No. 4 to the Site Certificate for the Montague Wind Power Facility (Montague Wind Power Facility, LLC, 2017).

Montague Wind PowerSolar Facility: Phase 2-Habitat Mitigation Plan [As AMENDED APRIL 2019XXX 2020]

1 IV. Description of the Mitigation Area

The certificate holder has selected a mitigation area in proximity to the facility where 2 habitat protection and enhancement are feasible consistent with this plan.³ The certificate holder 3 has identified a 440-acre parcel in a relatively remote setting where habitat protection and 4 enhancement are feasible.⁴ Conservation easements for other wind energy facilities have been 5 established within the 440-acre parcel, and the certificate holder has an option for establishing a 6 conservation easement for the MWPF Montague Solar Facility on the remaining acres.⁵ If 7 sufficient land for Phase 2 of the MWPF the mitigation area is not acquired within the 440-acre 8 parcel, the certificate holder shall select other land that is suitable for meeting the mitigation area 9 requirement consistent with this plan. Before beginning construction of Phase 2 of the facility, 10 the certificate holder shall determine the final size of the mitigation area needed for Phase 2. The 11 certificate holder shall determine the location and boundaries of the mitigation area in 12 13 consultation with ODFW and the affected landowners and subject to the approval of the Department. The final mitigation area must contain suitable habitat to achieve the ODFW goals 14 of no net loss of habitat quantity or quality in Categories 2, 3 and 4 and a net benefit in habitat 15 quantity or quality for impacts to Category 2 habitat through appropriate enhancement actions. 16 Before beginning construction of Phase 2 of the facility, the certificate holder shall acquire the 17 legal right to create, maintain and protect the habitat mitigation area for the life of the facility by 18 means of an outright purchase, conservation easement or similar conveyance and shall provide a 19

20 copy of the documentation to the Department.⁶

21 V. Habitat Enhancement Actions

22 The objectives of habitat enhancement are to protect habitat within the mitigation area from degradation and to improve the habitat quality of the mitigation area. By achieving these goals, 23 the certificate holder can address the permanent and temporal habitat impacts of Phase 2 of the 24 MWPF Montague Solar Facility and meet the ODFW goals of no net loss of habitat quantity or 25 quality in Categories 2, 3 and 4 and a net benefit in habitat quantity or quality for impacts to 26 Category 2 habitat. The certificate holder shall initiate the habitat enhancement actions for Phase 27 2 of the facility as soon as the size of the mitigation area has been determined and approved by 28 the Department. The certificate holder shall implement the following enhancement actions within 29 the habitat mitigation area: 30

Modification of Livestock Grazing Practices. The certificate holder shall restrict grazing
 within the habitat mitigation area. Eliminating livestock grazing within the mitigation
 area during most of the year will enable recovery of native bunchgrass and sagebrush in
 areas where past grazing or recent (2008) wildfires have occurred, resulting in better

³ OAR 635-415-0005 defines "in-proximity habitat mitigation" as follows: "habitat mitigation measures undertaken within or in proximity to areas affected by a development action. For the purposes of this policy, 'in proximity to' means within the same home range, or watershed (depending on the species or population being considered) whichever will have the highest likelihood of benefiting fish and wildlife populations directly affected by the development."

⁴ The 440-acre parcel is described in Section IV.4.(b)(F) of the *Final Order on the Application for the Leaning Juniper II Wind Power Facility*, September 21, 2007, pp. 97-100.

⁵ The 440-acre parcel is shown in Figures P-10 and P-11 of the <u>MWPF Montague Wind Power Facility</u> site certificate application.

⁶ As used in this plan, "life of the facility" means continuously until the facility site is restored and the site certificate is terminated in accordance with OAR 345-027-0110.

Montague Wind PowerSolar Facility: Phase 2-Habitat Mitigation Plan [As AMENDED APRIL 2019XXX 2020]

vegetative structure and complexity for a variety of wildlife. Reduced livestock grazing may be used as a vegetation management tool, limited to the period from February 1 through April 15.

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- 2) Shrub Planting. The certificate holder shall plant sagebrush shrubs in locations within the 4 habitat mitigation area where existing sagebrush is stressed or where recent (2008) 5 wildfires have occurred. The certificate holder shall determine the size of the shrub-6 planting areas based on the professional judgment of a qualified biologist after a ground 7 survey of actual conditions. The size of the shrub-planting areas will depend on the 8 available mitigation area and opportunity for survival of planted shrubs. The certificate 9 holder shall complete the initial sagebrush planting within one year after the beginning of 10 construction of Phase 2 of the MWPF. Supplementing existing, but disturbed, sagebrush 11 areas with sagebrush seedlings would assist the recovery of this valuable shrub-steppe 12 component. The certificate holder shall obtain shrubs from a qualified nursery or grow 13 shrubs from native seeds gathered from the mitigation area. The certificate holder shall 14 identify the area to be planted with sagebrush shrubs after consultation with ODFW and 15 subject to final approval by the Department. The certificate holder shall mark the planted 16 sagebrush clusters at the time of planting for later monitoring purposes and shall keep a 17 record of the number of shrubs planted. 18
- 3) Weed Control. The certificate holder shall implement a weed control program. Under the 19 weed control program, the certificate holder shall monitor the mitigation area to locate 20 21 weed infestations. The certificate holder shall continue weed control monitoring, as needed, for the life of the facility. As needed, the certificate holder shall use appropriate 22 methods to control weeds. Weed control on the mitigation site will reduce the spread of 23 noxious weeds within the habitat mitigation area and on any nearby grassland, 24 Conservation Reserve Program or cultivated agricultural land. Weed control will promote 25 the growth of desirable native vegetation and planted sagebrush. The certificate holder 26 may consider weeds to be successfully controlled when weed clusters have been 27 eradicated or reduced to a non-competing level. Weeds may be controlled with herbicides 28 or hand-pulling. The certificate holder shall notify the landowner of the specific 29 chemicals to be used on the site and when spraying will occur. To protect locations where 30 young desirable forbs may be growing, spot-spraying may be used instead of total area 31 spraying. 32
- 4) Fire Control. The certificate holder shall implement a fire control plan for wildfire 33 suppression within the mitigation area. The certificate holder shall provide a copy of the 34 fire control plan to the Department before starting habitat enhancement actions. The 35 certificate holder shall include in the plan appropriate fire prevention measures, methods 36 to detect fires that occur and a protocol for fire response and suppression. The certificate 37 holder shall maintain fire control for the life of the facility. If any part of the mitigation 38 area is damaged by wildfire, the certificate holder shall assess the extent of the damage 39 and implement appropriate actions to restore habitat quality in the damaged area. 40
- 41 5) <u>Habitat Protection</u>. The certificate holder shall restrict uses of the mitigation area that are
 42 inconsistent with the goals of no net loss of habitat quantity or quality in Categories 2, 3
 43 and 4 and a net benefit in Category 2 habitat quantity or quality.

1 VI. Monitoring

2 1. Monitoring Procedures

The certificate holder shall hire a qualified investigator (botanist, wildlife biologist or revegetation specialist) to conduct a comprehensive monitoring program for the mitigation area. The purpose of this monitoring is to evaluate on an ongoing basis the protection of habitat quality, the results of enhancement actions and the use of the area by avian and mammal species, especially during the wildlife breeding season.

8 The investigator shall monitor the habitat mitigation area for the life of the facility
9 beginning in the year following the initial sagebrush planting. The investigator shall visit the site
10 as necessary to carry out the following monitoring procedures:

- Annually assess vegetation cover (species, structural stage, etc.) and progress toward meeting the success criteria.
 Annually record environmental factors (such as precipitation at the time of surveys)
- Annually record environmental factors (such as precipitation at the time of surveys and precipitation levels for the year).
- Annually record any wildfire that occurs within the mitigation area and any remedial
 actions taken to restore habitat quality in the damaged area.
- 4) Annually assess the success of the weed control program and recommend remedial
 action, if needed.
- 5) Assess the recovery of native bunchgrass and natural recruitment of sagebrush 19 resulting from removal of livestock grazing pressure and recovery post-fire by 20 comparing the quality of bunchgrass and sagebrush cover at the time of each 21 monitoring visit with the quality observed in previous monitoring visits and as 22 observed when the mitigation area was first established. The investigator shall 23 establish photo plots of naturally recovering sagebrush and native bunchgrass during 24 the first year following the beginning of construction of the **MWPFMontague Solar** 25 26 Facility. The investigator shall take comparison photos in the first year and in every other year thereafter until the subject vegetation has achieved mature stature. The 27 investigator shall determine the extent of successful recovery of native bunchgrass 28 based on measurable indicators (such as signs of more abundant seed production) and 29 shall report on the progress of recovery within in the monitoring plots. The 30 investigator shall report on the timing and extent of any livestock grazing that has 31 occurred within the mitigation area since the previous monitoring visit. 32
- 6) Assess the survival rate and growth of planted sagebrush. At the time of planting, 33 sagebrush clusters will be marked for monitoring. The investigator shall select several 34 planted clusters for photo monitoring and shall take close-up and long-distance digital 35 images of each selected cluster during monitoring visits. The certificate holder shall 36 determine the number of clusters to be photo-monitored at the time of planting in 37 consultation with the Department and ODFW, based on the number of clusters 38 planted. The investigator shall take comparison photos in the first year following the 39 initial sagebrush planting and in every other year thereafter until the surviving planted 40 sagebrush has achieved mature stature. In each monitoring year, the investigator shall 41 determine and report the survival rate of planted sagebrush. Based on past experience 42 of restoration specialists for other sagebrush planting projects, a survival rate as high 43

as 50 percent can be achieved if there are years of high soil moisture, but a more
typical survival rate is 2 surviving shrubs per 10 planted (20 percent) after four years.
Shrub planting will be considered successful if a 20 percent survival rate is achieved
after four years. The investigator shall recommend remedial action when, in the
investigator's judgment, the survival rate of planted sagebrush is inadequate to
demonstrate a trend toward an improvement in habitat quality.

The certificate holder shall report the investigator's findings and recommendations
regarding the monitoring of the mitigation area to the Department and to ODFW on an annual
basis. In the annual mitigation area report, the certificate holder shall describe all habitat
mitigation actions carried out during the reporting year. The mitigation area report may be
included as part of the annual report on the <u>MWPF-Montague Solar Facility</u> that is required by
the site certificate.

13 2. Success Criteria

Mitigation of the permanent and temporal habitat impacts of the facility may be considered successful if the certificate holder protects and enhances sufficient habitat within the mitigation area to meet the ODFW goals of no net loss of habitat quantity or quality in Categories 2, 3 and 4 and a net benefit in habitat quantity or quality for impacts to Category 2 habitat. The certificate holder must protect the quantity and quality of habitat within the mitigation area for the life of the facility. ODFW has advised the Department that protection of habitat alone (without enhancement activity) will not meet the intent of the "net benefit" goal.

The certificate holder must protect a sufficient quantity of habitat in each category to 21 meet the mitigation area requirements calculated under Section III based on the final design 22 configuration for Phase 2 of the facility. The certificate holder shall determine the actual 23 mitigation area requirements for Phase 2 of the facility, subject to Department approval, before 24 beginning construction of Phase 2 of the facility. If the land selected for the mitigation area does 25 not already contain sufficient habitat in each category to meet these requirements, then the 26 certificate holder must demonstrate improvement of habitat quality sufficient to change lower-27 28 value habitat to a higher value (for example, to convert Category 3 habitat to Category 2). The certificate holder may demonstrate improvement of habitat quality based on evidence of 29 indicators such as increased avian use by a diversity of species, survival of planted shrubs, more 30 abundant seed production of desirable native bunchgrass, natural recruitment of sagebrush, and 31 successful weed control. If the certificate holder cannot demonstrate that the habitat mitigation 32 area is trending toward the habitat quality goals described above within four years after the initial 33 sagebrush planting, the certificate holder shall propose remedial action. The Department may 34 require supplemental planting or other corrective measures. 35

After the certificate holder has demonstrated that the habitat quantity goals have been achieved, the investigator shall verify, during subsequent monitoring visits, that the mitigation area continues to meet the ODFW "no net loss" and "net benefit" goals described above. The investigator shall recommend remedial action if the habitat quality within the mitigation area falls below the habitat quantity goals listed above. The Department may require supplemental planting, other corrective measures and additional monitoring as necessary to ensure that the habitat quantity goals are achieved and maintained.

1 VII. Amendment of the Plan

This *Habitat Mitigation Plan* may be amended from time to time by agreement of the certificate holder and the Council. Such amendments may be made without amendment of the site certificate. The Council authorizes the Department to agree to amendments to this plan. The Department shall notify the Council of all amendments, and the Council retains the authority to approve, reject or modify any amendment of this plan agreed to by the Department. Draft Oregon Trail Solar Facility Habitat Mitigation Plan

Montague Oregon Trail Wind PowerSolar Facility: Phase 2Draft Habitat **Mitigation Plan** [AS AMENDED APRIL 2019XXX 2020]

Introduction 1 I.

2 This plan describes methods and standards for preservation and enhancement of an area of land near the Montague-Oregon Trail Wind PowerSolar Facility (MWPF) to mitigate for the 3 impacts of the facility on wildlife habitat.¹ The certificate holder will construct the facility in two 4 phases. This plan addresses mitigation for both the permanent impacts of facility components 5 and the temporal impacts associated with the second phase (Phase 2) of facility construction. The 6 certificate holder shall protect and enhance the mitigation area as described in this plan. This 7 plan specifies habitat enhancement actions and monitoring procedures to evaluate the success of 8 those actions. Remedial action may be necessary if progress toward habitat enhancement success 9 10 is not demonstrated in the mitigation area. This plan was approved in September 2019 as part of the Energy Facility Siting Council's 11

(EFSC) Final Order on Request for Amendment 4 of the Montague Wind Power Facility site 12 certificate (Final Order on RFA4). Final Order on RFA4 approved modifications to the 13 previously approved layout and specifications of wind facility components and the addition of 14 approximately 1,189 acres of solar photovoltaic energy generation equipment. Within the 1,189 15

- acres approved for solar facility components, the land was used for cultivation of dryland winter
- 16 wheat and was designated habitat Category 6. In XX, 2020, the Council approved Final Order on 17
- Request for Amendment 5 of the Montague Wind Power Facility site certificate (Final Order on 18
- RFA5), authorizing previously approved facility components (Phase 2) to be allocated under 19
- original site certificates for facilities named Oregon Trail Solar Facility and Montague Solar 20
- Facility. The site certificate issued for the Oregon Trail Solar Facility was based entirely on the 21
- previously approved Montague Wind Power Facility site certificate; mitigation plans were based 22
- entirely on those approved in the Final Order on RFA4; modifications were incorporated into the 23

site certificates and mitigation plans based on the allocation of previously approved facility 24 components, location and type of equipment.

25

This Habitat Mitigation Plan is based on the draft amended plan provided as Attachment 26 D of the Final Order on RFA4, revised accordingly to describe and apply to the Oregon Trail 27

- Solar Facility. The Oregon Trail Solar Facility is a 41 megawatt (MW) wind and solar 28
- photovoltaic energy facility. The facility could include use of up to 1,228 acres for solar 29
- photovoltaic energy generation components or up to 16 wind turbines, or any combination of 30
- equipment not to exceed 41 MW, within a 13,866 acre site boundary, in northeastern Gilliam 31

County. This plan will be finalized, based on final facility layout and evaluation of habitat 32

categories impacted, prior to construction. 33

II. Description of the Impacts Addressed by the Plan 34

The land area that will be occupied by permanent Phase 2-facility components will 35 mostly be cropland, but also includes areas of perennial bunchgrass and desirable shrubs. After 36

¹ This plan is incorporated by reference in the site certificate for the Montague Oregon Trail Wind PowerSolar Facility and must be understood in that context. It is not a "stand-alone" document. This plan does not contain all mitigation required of the certificate holder.

1 disturbance, the recovery of perennial bunchgrass species to a mature stage might take five to

2 seven years; recovery of desirable shrubs such as bitterbrush and sagebrush might take ten to

3 30 years to reach maximum height and vertical branching. Even where recovery of these habitat

- 4 subtypes is successful, there is a loss of habitat quality during the period of time needed to
- 5 achieve recovery (temporal impact).

6 III. Calculation of the Size of the Mitigation Area

7 Before beginning construction on Phase 2 of the facility, the certificate holder shall provide to the Oregon Department of Energy (Department) a map showing the final design 8 configuration of Phase 2 of the facility and a table showing the estimated areas of permanent 9 impacts and construction area impacts on habitat (by category, habitat types, and habitat 10 subtypes). The certificate holder shall calculate the size of the mitigation area, as illustrated 11 below, based on the final design configuration of Phase 2 of the facility. The certificate holder 12 13 shall implement the habitat enhancement actions described in this plan, after the Department has approved the size of the mitigation area. This plan does not address additional mitigation that is 14 required under the Montague Oregon Trail Wind PowerSolar Facility Wildlife Monitoring and 15 Mitigation Plan. 16

The mitigation area must be large enough to meet the habitat mitigation goals and standards of the Oregon Department of Fish and Wildlife (ODFW) described in Oregon Administrative Rule (OAR) 635-415-0025. The ODFW goals require mitigation to achieve "no net loss" of habitat quantity or quality in Categories 2, 3 and 4 and a "net benefit" in habitat quantity or quality for impacts to habitat in Categories 2 and 5. The <u>MWPF MontagueOregon</u> <u>Trail Solar Facility</u> would not have any impacts on Category 1 or Category 5 habitats. Impacts on Category 6 habitat does not require mitigation.

For the footprint impacts, the mitigation area includes two acres for every one acre of Category 2 habitat affected (a 2:1 ratio) and one acre for every acre of footprint impacts to Category 3 and 4 habitat (a 1:1 ratio). The 2:1 ratio for Category 2 is intended to meet the ODFW goals of "no net loss" and "net benefit" of habitat quantity or quality for impacts to Category 2 habitat. The 1:1 ratio for the footprint impacts to Category 3 and 4 habitat is intended to meet the ODFW goal of "no net loss" of habitat in these categories.

To mitigate for temporary construction impacts, the mitigation area includes 2 acres for 30 every acre of Category 2 SSA (sagebrush shrub-steppe) habitat affected (a 2:1 ratio) and 1 acre 31 for every Category 3 or Category 4 SSA habitat affected (a 1:1 ratio). This portion of the 32 mitigation area is intended to address the temporal loss of habitat quality during the recovery of 33 34 SSA habitat disturbed during construction. The size of this portion of the mitigation area assumes that restoration of disturbed SSA habitat is successful, as determined under the 35 Montague Oregon Trail Wind PowerSolar Facility Revegetation Plan. If the revegetation success 36 criteria are not met in the affected areas, then the Oregon Energy Facility Siting Council 37 ("Council") may require the certificate holder to provide additional mitigation. 38

Areas of potential impact within each affected habitat category and the corresponding
 mitigation area for each category are calculated as follows, based on maximum high-quality
 habitat (Categories 2, 3, and 4) impact estimates for Phase 2 (Design Scenario A):²

4	Category 2
5	Footprint impacts: 2.10 acres
6	Temporary impacts to SSA: 0.2 acre
7	Mitigation area requirement: $(2.10 \text{ acres } x 2) + (0.2 \text{ acre } x 2) = 4.60 \text{ acres}$
8	Category 3
9	Footprint impacts: 0.44 acre
10	Temporary impacts to SSA: 0.09 acre
11	Mitigation area requirement: 0.44 acre + $(0.09 \text{ acre x } 1) = 0.53$ acre
12	Category 4
13	Footprint impacts: 0.09 acre
14	Mitigation area requirement: 0.09 acre
15	Total mitigation area for Phase 2 (Design Scenario A) of the MWPF (rounded up to
16	nearest whole acre): 6 (5.22) acres

² Table 9 [Temporary and Permanent Disturbance by Habitat Category and Subtype – Phase 2 Design Scenario A (Maximum Wind Layout)] in Attachment P-11 (Avian Use and Habitat Disturbance Supporting Data) of Exhibit P in Request for Amendment No. 4 to the Site Certificate for the Montague Wind Power Facility (Montague Wind Power Facility, LLC, 2017).

IV. Description of the Mitigation Area

The certificate holder has selected a mitigation area in proximity to the facility where 2 habitat protection and enhancement are feasible consistent with this plan.³ The certificate holder 3 has identified a 440-acre parcel in a relatively remote setting where habitat protection and 4 enhancement are feasible.⁴ Conservation easements for other wind energy facilities have been 5 6 established within the 440-acre parcel, and the certificate holder has an option for establishing a conservation easement for the MWPF-Orgon Trail Solar Facility on the remaining acres.⁵ If 7 sufficient land for Phase 2 of the MWPF the mitigation area is not acquired within the 440-acre 8 parcel, the certificate holder shall select other land that is suitable for meeting the mitigation area 9 requirement consistent with this plan. Before beginning construction of Phase 2 of the facility, 10 the certificate holder shall determine the final size of the mitigation area needed for Phase 2. The 11 certificate holder shall determine the location and boundaries of the mitigation area in 12 13 consultation with ODFW and the affected landowners and subject to the approval of the Department. The final mitigation area must contain suitable habitat to achieve the ODFW goals 14 of no net loss of habitat quantity or quality in Categories 2, 3 and 4 and a net benefit in habitat 15 quantity or quality for impacts to Category 2 habitat through appropriate enhancement actions. 16 Before beginning construction of Phase 2 of the facility, the certificate holder shall acquire the 17 legal right to create, maintain and protect the habitat mitigation area for the life of the facility by 18 means of an outright purchase, conservation easement or similar conveyance and shall provide a 19

20 copy of the documentation to the Department.⁶

21 V. Habitat Enhancement Actions

22 The objectives of habitat enhancement are to protect habitat within the mitigation area from 23 degradation and to improve the habitat quality of the mitigation area. By achieving these goals, the certificate holder can address the permanent and temporal habitat impacts of Phase 2 of the 24 MWPF-Oregon Trail Solar Facility and meet the ODFW goals of no net loss of habitat quantity 25 or quality in Categories 2, 3 and 4 and a net benefit in habitat quantity or quality for impacts to 26 Category 2 habitat. The certificate holder shall initiate the habitat enhancement actions for Phase 27 2 of the facility as soon as the size of the mitigation area has been determined and approved by 28 the Department. The certificate holder shall implement the following enhancement actions within 29 the habitat mitigation area: 30

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1) <u>Modification of Livestock Grazing Practices</u>. The certificate holder shall restrict grazing within the habitat mitigation area. Eliminating livestock grazing within the mitigation area during most of the year will enable recovery of native bunchgrass and sagebrush in areas where past grazing or recent (2008) wildfires have occurred, resulting in better

³ OAR 635-415-0005 defines "in-proximity habitat mitigation" as follows: "habitat mitigation measures undertaken within or in proximity to areas affected by a development action. For the purposes of this policy, 'in proximity to' means within the same home range, or watershed (depending on the species or population being considered) whichever will have the highest likelihood of benefiting fish and wildlife populations directly affected by the development."

⁴ The 440-acre parcel is described in Section IV.4.(b)(F) of the *Final Order on the Application for the Leaning Juniper II Wind Power Facility*, September 21, 2007, pp. 97-100.

⁵ The 440-acre parcel is shown in Figures P-10 and P-11 of the <u>MWPF-Montague Wind Power Facility</u> site certificate application.

⁶ As used in this plan, "life of the facility" means continuously until the facility site is restored and the site certificate is terminated in accordance with OAR 345-027-0110.

vegetative structure and complexity for a variety of wildlife. Reduced livestock grazing may be used as a vegetation management tool, limited to the period from February 1 through April 15.

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- 2) Shrub Planting. The certificate holder shall plant sagebrush shrubs in locations within the 4 habitat mitigation area where existing sagebrush is stressed or where recent (2008) 5 wildfires have occurred. The certificate holder shall determine the size of the shrub-6 planting areas based on the professional judgment of a qualified biologist after a ground 7 survey of actual conditions. The size of the shrub-planting areas will depend on the 8 available mitigation area and opportunity for survival of planted shrubs. The certificate 9 holder shall complete the initial sagebrush planting within one year after the beginning of 10 construction of Phase 2 of the MWPF. Supplementing existing, but disturbed, sagebrush 11 areas with sagebrush seedlings would assist the recovery of this valuable shrub-steppe 12 component. The certificate holder shall obtain shrubs from a qualified nursery or grow 13 shrubs from native seeds gathered from the mitigation area. The certificate holder shall 14 identify the area to be planted with sagebrush shrubs after consultation with ODFW and 15 subject to final approval by the Department. The certificate holder shall mark the planted 16 sagebrush clusters at the time of planting for later monitoring purposes and shall keep a 17 record of the number of shrubs planted. 18
- 3) Weed Control. The certificate holder shall implement a weed control program. Under the 19 weed control program, the certificate holder shall monitor the mitigation area to locate 20 21 weed infestations. The certificate holder shall continue weed control monitoring, as needed, for the life of the facility. As needed, the certificate holder shall use appropriate 22 methods to control weeds. Weed control on the mitigation site will reduce the spread of 23 noxious weeds within the habitat mitigation area and on any nearby grassland, 24 Conservation Reserve Program or cultivated agricultural land. Weed control will promote 25 the growth of desirable native vegetation and planted sagebrush. The certificate holder 26 may consider weeds to be successfully controlled when weed clusters have been 27 eradicated or reduced to a non-competing level. Weeds may be controlled with herbicides 28 or hand-pulling. The certificate holder shall notify the landowner of the specific 29 chemicals to be used on the site and when spraying will occur. To protect locations where 30 young desirable forbs may be growing, spot-spraying may be used instead of total area 31 spraying. 32
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- 41 5) <u>Habitat Protection</u>. The certificate holder shall restrict uses of the mitigation area that are
 42 inconsistent with the goals of no net loss of habitat quantity or quality in Categories 2, 3
 43 and 4 and a net benefit in Category 2 habitat quantity or quality.

1 VI. Monitoring

2 1. Monitoring Procedures

The certificate holder shall hire a qualified investigator (botanist, wildlife biologist or revegetation specialist) to conduct a comprehensive monitoring program for the mitigation area. The purpose of this monitoring is to evaluate on an ongoing basis the protection of habitat quality, the results of enhancement actions and the use of the area by avian and mammal species, especially during the wildlife breeding season.

8 The investigator shall monitor the habitat mitigation area for the life of the facility
9 beginning in the year following the initial sagebrush planting. The investigator shall visit the site
10 as necessary to carry out the following monitoring procedures:

- Annually assess vegetation cover (species, structural stage, etc.) and progress toward meeting the success criteria.
- Annually record environmental factors (such as precipitation at the time of surveys and precipitation levels for the year).
- Annually record any wildfire that occurs within the mitigation area and any remedial
 actions taken to restore habitat quality in the damaged area.
- 4) Annually assess the success of the weed control program and recommend remedial
 action, if needed.
- 5) Assess the recovery of native bunchgrass and natural recruitment of sagebrush 19 resulting from removal of livestock grazing pressure and recovery post-fire by 20 comparing the quality of bunchgrass and sagebrush cover at the time of each 21 monitoring visit with the quality observed in previous monitoring visits and as 22 observed when the mitigation area was first established. The investigator shall 23 establish photo plots of naturally recovering sagebrush and native bunchgrass during 24 the first year following the beginning of construction of the MWPFOregon Trail Solar 25 26 Facility. The investigator shall take comparison photos in the first year and in every other year thereafter until the subject vegetation has achieved mature stature. The 27 investigator shall determine the extent of successful recovery of native bunchgrass 28 based on measurable indicators (such as signs of more abundant seed production) and 29 shall report on the progress of recovery within in the monitoring plots. The 30 investigator shall report on the timing and extent of any livestock grazing that has 31 occurred within the mitigation area since the previous monitoring visit. 32
- 6) Assess the survival rate and growth of planted sagebrush. At the time of planting, 33 sagebrush clusters will be marked for monitoring. The investigator shall select several 34 planted clusters for photo monitoring and shall take close-up and long-distance digital 35 images of each selected cluster during monitoring visits. The certificate holder shall 36 determine the number of clusters to be photo-monitored at the time of planting in 37 consultation with the Department and ODFW, based on the number of clusters 38 planted. The investigator shall take comparison photos in the first year following the 39 initial sagebrush planting and in every other year thereafter until the surviving planted 40 sagebrush has achieved mature stature. In each monitoring year, the investigator shall 41 determine and report the survival rate of planted sagebrush. Based on past experience 42 of restoration specialists for other sagebrush planting projects, a survival rate as high 43

as 50 percent can be achieved if there are years of high soil moisture, but a more typical survival rate is 2 surviving shrubs per 10 planted (20 percent) after four years. Shrub planting will be considered successful if a 20 percent survival rate is achieved after four years. The investigator shall recommend remedial action when, in the investigator's judgment, the survival rate of planted sagebrush is inadequate to demonstrate a trend toward an improvement in habitat quality.

The certificate holder shall report the investigator's findings and recommendations
regarding the monitoring of the mitigation area to the Department and to ODFW on an annual
basis. In the annual mitigation area report, the certificate holder shall describe all habitat
mitigation actions carried out during the reporting year. The mitigation area report may be
included as part of the annual report on the MWPF-Oregon Trail Solar Facility that is required by
the site certificate.

13 2. Success Criteria

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Mitigation of the permanent and temporal habitat impacts of the facility may be considered successful if the certificate holder protects and enhances sufficient habitat within the mitigation area to meet the ODFW goals of no net loss of habitat quantity or quality in Categories 2, 3 and 4 and a net benefit in habitat quantity or quality for impacts to Category 2 habitat. The certificate holder must protect the quantity and quality of habitat within the mitigation area for the life of the facility. ODFW has advised the Department that protection of habitat alone (without enhancement activity) will not meet the intent of the "net benefit" goal.

The certificate holder must protect a sufficient quantity of habitat in each category to 21 meet the mitigation area requirements calculated under Section III based on the final design 22 configuration for Phase 2 of the facility. The certificate holder shall determine the actual 23 mitigation area requirements for Phase 2 of the facility, subject to Department approval, before 24 beginning construction of Phase 2 of the facility. If the land selected for the mitigation area does 25 not already contain sufficient habitat in each category to meet these requirements, then the 26 certificate holder must demonstrate improvement of habitat quality sufficient to change lower-27 28 value habitat to a higher value (for example, to convert Category 3 habitat to Category 2). The certificate holder may demonstrate improvement of habitat quality based on evidence of 29 indicators such as increased avian use by a diversity of species, survival of planted shrubs, more 30 abundant seed production of desirable native bunchgrass, natural recruitment of sagebrush, and 31 successful weed control. If the certificate holder cannot demonstrate that the habitat mitigation 32 area is trending toward the habitat quality goals described above within four years after the initial 33 sagebrush planting, the certificate holder shall propose remedial action. The Department may 34 require supplemental planting or other corrective measures. 35

After the certificate holder has demonstrated that the habitat quantity goals have been achieved, the investigator shall verify, during subsequent monitoring visits, that the mitigation area continues to meet the ODFW "no net loss" and "net benefit" goals described above. The investigator shall recommend remedial action if the habitat quality within the mitigation area falls below the habitat quantity goals listed above. The Department may require supplemental planting, other corrective measures and additional monitoring as necessary to ensure that the habitat quantity goals are achieved and maintained.

1 VII. Amendment of the Plan

This *Habitat Mitigation Plan* may be amended from time to time by agreement of the certificate holder and the Council. Such amendments may be made without amendment of the site certificate. The Council authorizes the Department to agree to amendments to this plan. The Department shall notify the Council of all amendments, and the Council retains the authority to approve, reject or modify any amendment of this plan agreed to by the Department.

Attachment E Draft Amended Revegetation Plans

Draft Amended Montague Wind Facility Revegetation Plan Draft Montague Solar Facility Revegetation Plan Draft Oregon Trail Solar Facility Revegetation Plan Draft Amended Montague Wind Facility Revegetation Plan

1 I. Introduction

This plan describes methods, success criteria, monitoring and reporting requirements for 2 restoration of areas temporarily disturbed during the construction of the Montague Wind Power 3 Facility (MWPF), excluding areas occupied by permanent facility components (the "footprint").¹ 4 The objective of revegetation is to restore the disturbed areas to pre-disturbance conditions or 5 better. The evaluation of pre-disturbance conditions is based upon evaluation of the revegetated 6 area conditions compared to conditions of approved, fixed-point reference sites, which serve as a 7 proxy for pre-disturbance conditions. It is important to note, however, that habitat conditions at 8 reference sites may fluctuate over time depending on climate and landscape-scale shifts in plant 9 communities, as further described in Section VII. The site certificate for the facility requires 10 restoration of disturbed areas to satisfy the requirements of the Fish and Wildlife Habitat 11 standard (OAR 345-022-0060). 12

This plan was developed in consultation with the Oregon Department of Fish and 13 Wildlife (ODFW) and approved by the Energy Facility Siting Council in the Final Order on the 14 Application for Site Certificate issued in September 2010. The Revegetation Plan was amended 15 in September 2017, to satisfy requirements of Condition 92, based upon final Phase 1 facility 16 design/layout and habitat impact assessment completed in 2017 to satisfy requirements of 17 Condition 31. Temporary habitat impacts (Categories 2, 3 and 4) required to be mitigated 18 through revegetation, as evaluated in September 2017 during pre-construction of the facility, are 19 represented in Table 1 below and temporary disturbance locations are presented in the attached 20 figure. 21 The amended Habitat Mitigation Plan (Condition 93), as approved in September 2017, 22

- describes the area of both permanent and temporary disturbance anticipated during construction
 and operation of the MWPF. In XX, 2020, the Council approved Final Order on Request for
 Amendment 5 of the Montague Wind Power Facility site certificate (Final Order on RFA5),
 authorizing amendment of the Montague Wind Power Facility site certificate to cover only Phase
 1 facility components; and, previously approved facility components (Phase 2) to be allocated
 under original site certificates for facilities named Montague Solar Facility and Oregon Trail Solar
 Facility. This plan is based on the plan finalized prior to Phase 1 facility construction (August 2017), revised accordingly to describe and apply to the facility components allocated in the
 Montague Wind Power Facility, as approved in Final Order on RFA5. The Montague Wind Power Facility is a 201 MW wind energy facility, including 56 wind turbines, located in northeastern
 Gilliam County. The Montague Wind Power Facility resulted in permanent impacts to Category 2, 3 and 4 habitat. Mitigation requirements are described in the following sections.
- ²⁴²⁵ The temporarily affected area includes cultivated or otherwise developed agricultural land (cropland) as well as areas of grassland, shrub-steppe habitat and other habitat subtypes (wildlife habitat areas). The intensity of the construction impact will vary.

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2627 In some areas, the impact will be relatively light, but in other areas, heavy construction activity 2728 will remove all vegetation, remove topsoil, and compact the remaining subsoil. Where vegetation 2829 has been damaged or removed during construction, the certificate holder must restore suitable 2930 vegetation. In addition, the certificate holder shall maintain erosion and sediment control 3031 measures put in place during construction until the affected areas are restored as described in this
3432 plan and the revegetation efforts have succeeded enough to control erosion. When there is
3233 enough grass in place to hold the soil the control measures can be removed. The plan specifies
3334 monitoring procedures to evaluate revegetation success of disturbed wildlife habitat areas.
3435 Remedial action may be necessary for wildlife habitat areas that do not show revegetation
3536 progress. Compensatory mitigation may be necessary if revegetation is unsuccessful.

¹ This plan is incorporated by reference in the site certificate for the Montague Wind Power Facility and must be understood in that context. It is not a "stand-alone" document. This plan does not contain all mitigation required of the certificate holder.

Montague Wind Power Facility: Revegetation Plan [As Amended September 2017XX 2020]

1 II. Description of the Facility Site

The facility is in Gilliam County, Oregon. The facility site is on private agricultural land used primarily for wheat and hay farming and livestock grazing. Most of the facility components are located on four primary soil types: the Olex Unit, the Ritzville Unit, the Warden Unit and the Willis Unit. Soils are typically well-drained, moderately permeable, fertile silt loams formed in loess deposits. The area receives between approximately 9 and 14 inches of precipitation annually, most of which occurs between October 1 and March 31.

8 The site is within the Columbia Plateau physiographic province. The facility is located on an

9 upland plateau at elevations ranging from approximately 530 feet to 1,520 feet. Most of the

native vegetation within the site boundary has been modified by historic and ongoing livestock

- 11 grazing and past wildfires.
- 12 The general land cover types within the site boundary are Developed, Exposed Rock, Grassland,
- 13 Shrub-steppe and Woodland. Specifically, functional, mature sagebrush (big sage) shrub-steppe
- 14 and juniper woodland habitat is patchy, occurring in specific locations within the site boundary.
- 15 Sagebrush (big sage) shrub-steppe is found on deep soils in patches throughout the site and
- 16 higher quality habitat is usually found on slopes or in draws that have been avoided for
- agricultural development. Juniper woodland habitat is present in portions of the site, but
- individual juniper trees are scattered sparsely in other habitats. Wildfires have removed some
- 19 juniper trees in the Eightmile Canyon area. Riparian woodland habitat within the site is limited to
- 20 one narrow intermittent linear course in Eightmile canyon. Rabbitbrush/Snakeweed shrub-steppe
- habitat is the most prevalent native habitat type within the site. Rabbitbrush/Snakeweed shrub-
- steppe is more prevalent in the north, west and middle portions of the site, with smaller patches
- distributed throughout much of the site. Native perennial grassland is also present throughout
- 24 much of the north, middle and south portions of the site.

25 1. Description of the Wildlife Habitat Revegetation Areas

26 Wildlife habitat areas temporarily impacted during construction, based upon the

27 certificate holder's pre-construction evaluation, are presented in Table 1 below and depicted in

the attached figure.²

Habitat Description	Temporary Impact (Acres)
Category 2	
Grassland – Exotic Annual	1.1
Grassland – Native Perennial	0.9
Shrub-steppe – Sagebrush (Big Sage)	1.4
Shrub-steppe – Rabbitbrush/Snakeweed	12.4
Category 2 Subtotal =	15.8
Developed – CRP or Other Planted Grassland	1.4
Developed-Revegetated or Other Planted Grassland	1.0

Table 1: Summary of Wildlife Habitat Revegetation Areas

² MWPOPS Condition 31 Habitat Mitigation Plan (August 2017)

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Habitat Description	Temporary Impact (Acres)
Grassland – Native Perennial	13.9
Shrub-steppe – Sagebrush (Big Sage)	0.5
Shrub-steppe – Rabbitbrush/Snakeweed	2.7
Category 3 Subtotal =	19.5
Developed-Revegetated or Other Planted Grassland	1.8
Grassland – Exotic Annual	4.2
Shrub-steppe – Rabbitbrush/Snakeweed	5.2
Category 4 Subtotal =	11.2
Total Temporary Impacts to Wildlife Habitat Areas (Categories 2, 3 and 4) =	46.5 Acres

Table 1: Summary of Wildlife Habitat Revegetation Areas

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2 2. Description of the Cropland Revegetation Areas

- 3 Cropland areas temporarily impacted during construction, based upon the certificate
- holder's pre-construction evaluation, are presented in Table 2 below and depicted in the attached
 figure.³

Habitat Description	Temporary Impact (Acres)		
Category 6			
Developed – Dryland Wheat	607.6		
Developed – Other	3.3		
Total Temporary Impacts to Cropland Areas (Category 6) =	610.9		

Table 2: Summary of Cropland Revegetation Areas

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7 III. Pre-Revegetation Agency Consultation and Revegetation Methods

8 The certificate holder shall consult with ODFW, ODOE and Gilliam County Weed 9 Control Authority prior to construction to discuss the area(s) to be restored, habitat category and 10 habitat subtype conditions, reference plot location and conditions, topsoil restoration and

11 revegetation methods, erosion and sediment control measures, and implementation schedule.

- 12
- 13 During construction the certificate holder will implement site stabilization measures, including

14 seeding of temporarily disturbed areas according to its NPDES permit. Six months prior to

commercial operation, the certificate holder will meet with ODFW, ODOE, and Gilliam County

16 Weed Control Authority to review the actual extent and conditions of temporarily impacted

areas, confirm the revegetation methods agreed to during pre-construction review are still

18 appropriate, and to re-visit reference areas.

³ MWPOPS Condition 31 Habitat Mitigation Plan DATE MONTAGUE WIND POWER FACILITY

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[AS AMENDED SEPTEMBER 2017XX 2020]

The certificate holder shall restore temporarily disturbed wildlife habitat areas by 1 preparing the soil and seeding using common application methods. In areas where soil is 2 removed during construction, the topsoil shall be stockpiled separately from the subsurface soils. 3 4 The conserved soil shall be put back in place as topsoil prior to revegetation activities. Additional site-specific soil preparation and seeding methods may be determined during the 5 agency consultation period. The certificate holder shall use mulching and other appropriate 6 practices to control erosion and sediment during construction and during revegetation work. The 7 certificate holder shall select the seed mixes to apply based on the pre-construction land use, as 8 described below. At the recommendation of ODFW, the grass seed mix will be comprised of 9 grasses only in order to maximize flexibility for weed control. The certificate holder shall consult 10 with ODFW as described in Section V below regarding appropriate seeding or planting per site-11 specific restoration needs. 12

13 1. Seed Planting Methods

Planting should be done based on ODFW and Gilliam County Weed Control Authority recommendations and in consultation with the seeding contractor at the appropriate time of year to facilitate seed germination, based on weather conditions and the time of year when construction-related ground disturbance occurs. The certificate holder shall choose planting methods based on site-specific factors such as slope, erosion potential and the size of the area in need of revegetation. Disturbed ground may require chemical or mechanical weed control before weeds have a chance to go to seed. Two common application methods are described as follows.

21 (a) Broadcasting

Broadcast the seed mix at the specified application rate. Where feasible, apply half of the 22 total mix in one direction and the second half of mix in the direction perpendicular to first half. 23 Apply weed-free straw from a certified field or sterile straw at a rate of two tons per acre 24 25 immediately after applying seed. Crimp straw into the ground to a depth of two inches using a crimping disc or similar device. As an alternative to crimping, a tackifier may be applied using 26 hydroseed equipment at a rate of 100 pounds per acre. Prior to mixing the tackifer, visually 27 inspect the tank for cleanliness. If remnants from previous hydroseed applications exist, wash 28 tank to remove remnants. Include a tracking dye with the tackifier to aid uniform application. 29 Broadcasting should not be used if winds exceed five miles per hour. 30

31 (b) Drilling

Using an agricultural or range seed drill, drill seed at 70 percent of the recommended application rate to a depth of ¼ inch or as recommended by the seed supplier. Where feasible, apply half of the total mix in one direction and the second half of mix in the direction perpendicular to first half. If mulch has been previously applied, seed may be drilled through the mulch provided the drill can penetrate the straw resulting in seed-to-soil contact conducive for germination.

38 IV. Restoration of Cropland

The certificate holder shall seed disturbed cropland areas with wheat or other crop seed. The certificate holder shall consult with the landowner and farm operator to determine species composition, seed and fertilizer application rates and application methods.

42 Cropland areas are successfully revegetated when the replanted areas achieve crop
 43 production comparable to adjacent non-disturbed cultivated areas. The certificate holder shall

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1 consult with the landowner or farmer to determine whether these areas have been successfully

2 revegetated and shall report to the Oregon Department of Energy (Department) on the success of

3 revegetation in these areas.

4 V. Restoration of Wildlife Habitat Areas

The certificate holder shall implement topsoil salvage and restoration methods as recommended by ODFW, the Gilliam County Weed Control Authority and the contractor, and could include measures such as scraping and stockpiling the upper 6 inches of topsoil containing the fertile nutrients, to be segregated in windrows, kept intact and protected, for use as the topdressing for the area of disturbance.

The certificate holder shall seed all disturbed grassland, shrub-steppe, and other wildlife 10 11 habitat subtype areas, as identified in Table 1 above, that are not cropland or other developed lands. The certificate holder shall consult with ODFW, Gilliam County Weed Control Authority, 12 the landowner and the contractor to determine the appropriate seed mix and application rate for 13 these areas based on the characteristics of the affected area. At the recommendation of ODFW, 14 15 the grass seed mix will be comprised of grasses only in order to maximize flexibility for weed control. The mix should contain native or native like species selected based on relative 16 availability and compatibility with local growing conditions. Seed mix selection should consider 17 soil erosion potential, soil type, seed availability and the need for using native or native-like 18 species. The certificate holder shall obtain approval of the composition of the seed mix from the 19 Department. The certificate holder shall use seed provided by a reputable supplier and complying 20 21 with the Oregon Seed Law. The certificate holder shall obtain young native shrub species from a qualified nursery or suitable transplants from MWPF construction zones. 22

23 VI. Noxious Weed Prevention and Control

The certificate holder shall implement weed prevention and control measures prior to and during
 revegetation efforts. The construction contractor will take the following measures to avoid, minimize, or
 reduce the impacts of noxious weeds:

- Use weed-free project staging areas.
- Clean equipment prior to entry into revegetation areas.
- Existing infestations of noxious weed shall be treated prior to revegetation.
- Infestation of noxious weeds that appear during revegetation efforts shall be spot treated
 immediately to prevent expansion.
- Ground application of herbicides will be with a dripless wand applicator carried over the
 site either on foot in a backpack sprayer or in a tank on a rubber-tired all-terrain vehicle.
 Herbicide(s) used will be limited to types that do not move through the soil and whose
 affect is immediate but short-lived. Herbicide(s) used within 200 feet of waterbodies will be
 approved for use near or in wetlands to avoid unintentional affects to aquatic species.
- Herbicide mixes will be colored with dye to aid in post-application monitoring.
- Following completion of revegetation, weed monitoring and any necessary control efforts
 will be completed annually.

MONTAGUE WIND POWER FACILITY

1 VII.Monitoring

2 1. Revegetation Record

The certificate holder shall maintain a record of revegetation work for wildlife habitat 3 areas. In the record, the certificate holder shall include the date that construction activity was 4 5 completed in the area to be restored, a description of the affected area and supporting figures representing the location (location, acres affected and pre-disturbance condition), the date that 6 revegetation work began and a description of the work done within the affected area. The 7 certificate holder shall report restoration activities to the Department for the first 5-years after the 8 completion of facility construction. After five years, any restoration actions will be described in 9 the annual report per OAR 345-026-0080(e). 10

11 2. Monitoring Procedures

12 The certificate holder shall identify reference sites in consultation with ODFW.

13 Reference sites shall be chosen to represent each of the habitat types shown in Table 1 above.

Once the reference sites are approved by ODFW, the certificate holder shall monitor those sites to establish baseline conditions as they relate to the success criteria for the project.

16 Documentation of baseline conditions at reference sites shall occur prior to commencement of

revegetation efforts. The certificate holder shall monitor the revegetation of wildlife habitat areas

as described in this section, unless the landowner has converted the area to a use inconsistent

19 with the success criteria. The certificate holder shall employ a qualified investigator (a botanist

20 or revegetation specialist) to examine all non-cropland revegetation areas to assess vegetation

cover of the reference sites prior to construction (species, structural stage, etc.); and following

completion of construction, the qualified investigator shall assess the progress of disturbed areas
 toward meeting the success criteria described below.

24 <u>Weed Control</u>

A qualified investigator shall inspect each revegetation area on an annual basis during the first five years following initial seeding to assess weed growth and to recommend weed control measures. The investigator shall report to the certificate holder, the Department, and ODFW in the semi-annual revegetation monitoring report following each inspection, describing weed growth and the success of control measures. If control measures are ineffective, the certificate holder will confer with the Department, ODFW, and the Gilliam County Weed Control Authority to develop alternative control measures.

32 <u>Wildlife Habitat Recovery</u>

After the first growing season following initial seeding (Year 1), a qualified investigator 33 shall inspect each revegetation area to assess revegetation success based on the success criteria 34 and to recommend remedial actions, if needed. The qualified investigator shall reinspect these 35 areas annually for the first 5-years following the completion of construction. The certificate 36 holder shall submit, electronically, to the Department and ODFW the investigator revegetation 37 38 inspection report in the semi-annual revegetation monitoring report following each inspection. The report shall include the investigator's assessment of whether the revegetated areas are 39 trending toward meeting the success criteria; assessment of factors impacting the ability of the 40 revegetated area to trend towards meeting the success criteria; description of appropriate weed 41 control measures as recommended by the Department, ODFW and Gilliam County Weed 42 Control Authority; and, any remedial actions recommended. 43

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[AS AMENDED SEPTEMBER 2017XX 2020]

Following the Year 5 revegetation monitoring the certificate holder shall confer with the 1 2 Department and ODFW to develop an action plan for subsequent years. If an area is not trending toward meeting the success criteria at Year 5 and has not been converted by the landowner to an 3 4 inconsistent use, the certificate holder may propose and the Department may require remedial action and additional monitoring based on an evaluation of site capability. As an alternative, the 5 certificate holder or the Department may conclude that revegetation of the area was unsuccessful 6 and propose appropriate mitigation for the permanent loss of habitat quality and quantity. The 7 8 certificate holder shall implement the action plan, subject to the approval of the Department.

The certificate holder's qualified investigator shall evaluate whether a wildlife habitat 9 area is trending toward meeting the success criteria by comparing the revegetation area to an 10 approved reference area. In consultation with the Department and ODFW, prior to construction, 11 the investigator shall choose reference sites near the revegetation area to represent the target 12 conditions for the revegetation effort. The investigator shall select one or more reference sites 13 that closely resemble the pre-disturbance characteristics of the revegetation area as indicated by 14 site conditions, including vegetation density, relative proportion of desirable vegetation, and 15 species diversity of desirable vegetation. "Desirable vegetation" means those species included in 16 the seed mix or native or native-like species, excluding noxious weeds. "Noxious weeds" are 17 defined as non-native species as identified as noxious on state or county noxious weed lists. The 18 investigator shall consider land use patterns, soil type, local terrain, and noxious weed densities 19 in selecting reference sites. It is likely that different reference sites will be needed to represent 20 different pre-disturbance habitat conditions of the disturbed areas. Once reference sites are 21 selected by the certificate holder and approved by the Department and ODFW, the reference site 22 shall remain in the same location unless approval for use of a differing reference site is obtained 23 by the Department and ODFW. In the first semi-annual revegetation monitoring report submitted 24 to the Department, the certificate holder shall provide a map and table presenting the latitude and 25 longitude of the reference sites. 26

27 During the initial 5-years of annual monitoring, the certificate holder's qualified investigator shall compare the revegetation area to the selected reference sites, unless some event 28 (such as wildfire, tilling, or intensive livestock grazing) has changed the vegetation conditions of 29 a reference site so that it no longer represents undisturbed conditions of the revegetation area. If 30 such events have eliminated all suitable reference sites for a revegetation area, the investigator, 31 in consultation with the Department and ODFW, shall select one or more new reference sites. 32 33 Following the selection of a new reference site, an updated table and latitude/longitudinal data shall be provided to the Department within the semi-annual monitoring report or annual 34 compliance report, whichever report is submitted first. 35

The certificate holder will submit its vegetation monitoring methodology to ODFW and ODOE for approval prior to assessing baseline conditions and prior to annual monitoring. Within each revegetation area, the investigator shall evaluate the progress of wildlife habitat recovery in comparison to the reference sites. The investigator shall evaluate the following site conditions (both within the revegetation area and within the reference sites):

- 41
- Degree of erosion due to disturbance activities (high, moderate, or low).
- 42
- 2

Vegetation density.

Montague Wind Power Facility: Revegetation Plan [As Amended September 2017XX 2020]

- Relative proportion of desirable vegetation as determined by the average number of stems of desirable vegetation per square foot or by a visual scan of the area, noting overall recovery status.
- Species diversity of desirable vegetation.

5 The certificate holder shall report the investigator's findings and recommendations 6 regarding wildlife habitat recovery and revegetation success in the semi-annual revegetation 7 monitoring report to the Department and to ODFW.

8 **3.** Success Criteria

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In each revegetation monitoring report to the Department, the certificate holder shall
provide an assessment of revegetation success for all previously-disturbed wildlife habitat areas.
A wildlife habitat area is successfully revegetated when its habitat quality is equal to, or better
than, the habitat quality of the reference site as follows:

- Vegetation density is equal to or greater than that of the reference site.
- Relative proportion of desirable vegetation is equal to or greater than that of the reference site.
 - Species diversity of desirable vegetation is equal to or greater than that of the reference site.

When the Department finds that the condition of a wildlife habitat area satisfies the criteria for revegetation success, the Department shall conclude that the certificate holder has met its restoration obligations for that area. If the Department finds that the landowner has converted a wildlife habitat area to a use that is inconsistent with these success criteria, the Department shall conclude that the certificate holder has no further obligation to restore the area for wildlife habitat uses.

24 4. Remedial Action

After each monitoring visit, the certificate holder's qualified investigator shall report to 25 the certificate holder regarding the revegetation progress of each wildlife habitat area. The 26 investigator shall make recommendations to the certificate holder for reseeding, weed control or 27 other remedial measures for areas that are not showing progress toward achieving revegetation 28 success based upon consultation with the Department, ODFW, the Gilliam County Weed Control 29 authority, and the contractor. The investigator shall provide a description of causal factors that 30 may be contributing to the lack of revegetation success. The certificate holder shall take 31 32 appropriate action to meet the objectives of this revegetation plan. The certificate holder shall report the investigator's recommendations and the remedial measures taken to the Department in 33 the semi-annual revegetation monitoring report. The Department may require reseeding, weed 34 control or other remedial measures in those areas that are not trending towards meeting the 35 success criteria by year 5. 36

If a wildlife habitat area is damaged by wildfire during the first five years following
initial seeding, the certificate holder shall work with the landowner to restore the damaged area.
The certificate holder shall continue to report on revegetation progress during the remainder of
the five-year period. The certificate holder shall report to the Department and ODFW the area

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1 impacted by the fire (map or figure), damage caused by wildfire (including acreage and facility

2 components impacted) and the cause of the fire, if known.

3 VIII. Amendment of the Plan

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- 4 This Revegetation Plan may be amended from time to time by agreement of the
- 5 certificate holder and the Oregon Energy Facility Siting Council ("Council"). Such amendments
- 6 may be made without amendment of the site certificate. The Council authorizes the Department
- 7 to agree to amendments to this plan. The Department shall notify the Council of all amendments,
- and the Council retains the authority to approve, reject or modify any amendment of this plan
- 9 agreed to by the Department.

Draft Montague Solar Facility Revegetation Plan

Montague Wind PowerSolar Facility: Phase 2 Revegetation Plan [As AMENDED APRIL 2019XX 2020]

I. Introduction

1

This plan describes methods, success criteria, and monitoring and reporting requirements 2 for restoration of areas temporarily disturbed during the construction of Phase 2 of the Montague 3 Wind PowerSolar Facility (MWPF), excluding areas occupied by permanent facility components 4 (the "footprint").¹ The objective of revegetation is to restore the disturbed areas to pre-5 disturbance conditions or better. The evaluation of pre-disturbance conditions is based on 6 7 evaluation of the revegetated area conditions compared to conditions of approved, fixed-point reference sites, which serve as a proxy for pre-disturbance condition. It is important to note, 8 however, that habitat conditions at reference sites may fluctuate over time depending on climate 9 and landscape-scale shifts in plant communities, as further described in Section VI. The site 10 certificate for the facility requires restoration of disturbed areas to satisfy the requirements of the 11 Fish and Wildlife Habitat standard (OAR 345-022-0060). 12

This plan was developed in consultation with the Oregon Department of Fish and 13 Wildlife (ODFW) and approved by the Oregon Energy Facility Siting Council ("Council") in the 14 Final Order on the Application for Site Certificate issued in September 2010. The plan was 15 amended in September 2017 to satisfy the requirements of Condition 92, based on the final Phase 16 1 facility design/layout and habitat impact assessment completed in 2017 to satisfy requirements 17 of Condition 31. Temporary habitat impacts (Categories 2, 3 and 4) required to be mitigated 18 through revegetation, as evaluated in September 2017 during pre-construction of the facility, are 19 represented in Table 1 below and temporary disturbance locations are presented on the attached 20 figure. 21

- In XX, 2020, the Council approved Final Order on Request for Amendment 5 of the 22 Montague Wind Power Facility site certificate (Final Order on RFA5), authorizing previously 23 approved facility components (Phase 2) to be allocated under original site certificates for 24 facilities named Montague Solar Facility and Oregon Trail Solar Facility. The site certificate 25 issued for the Montague Solar Facility was based entirely on the previously approved Montague 26 Wind Power Facility site certificate; mitigation plans were based entirely on those approved in 27 the Final Order on RFA4; modifications were incorporated into the site certificates and 28 mitigation plans based on the allocation of previously approved facility components, location 29 and type of equipment. 30 31 The Montague Solar Facility is a 162 megawatt (MW) solar photovoltaic energy facility
- <u>Ine Montague Solar Facility is a 162 megawait (MW) solar photovoltaic energy facility</u>
 <u>located within a 1,496 solar micrositing area and 1,763 acre site boundary, in northeastern</u>
 <u>Gilliam County.</u>
- The Phase 2 Habitat Mitigation Plan (Condition 93) describes the area of both permanent and temporary disturbance anticipated during construction and operation of the <u>MWPFfacility</u>. The temporarily affected area includes cultivated or otherwise developed agricultural land (cropland) as well as areas of grassland, shrub-steppe habitat and other habitat subtypes (wildlife habitat areas). The intensity of the construction impact will vary. In some areas, the impact will

¹ This plan is incorporated by reference in the site certificate for the Montague Wind Power Facility and must be understood in that context. It is not a "stand-alone" document. This plan does not contain all mitigation required of the certificate holder.

Montague Wind PowerSolar Facility: Phase 2-Revegetation Plan [As Amended January 2018XX 2020]

be relatively light, but in other areas, heavy construction activity will remove all vegetation, 1 remove topsoil, and compact the remaining subsoil. Where vegetation has been damaged or 2 removed during construction, the certificate holder must restore suitable vegetation. In addition, 3 the certificate holder shall maintain erosion and sediment control measures put in place during 4 construction until the affected areas are restored as described in this plan and the revegetation 5 efforts have succeeded enough to control erosion. When there is enough grass in place to hold 6 the soil, the control measures can be removed. The plan specifies monitoring procedures to 7 evaluate revegetation success of disturbed wildlife habitat areas. Remedial action may be 8 necessary for wildlife habitat areas that do not show revegetation progress. Compensatory 9 mitigation may be necessary if revegetation is unsuccessful. 10

11 II. Description of the Facility Site

The facility is in Gilliam County, Oregon. The facility site is on private agricultural land used primarily for wheat and hay farming and livestock grazing. Most of the facility components are located on four primary soil types: the Olex Unit, the Ritzville Unit, the Warden Unit, and the Willis Unit. Soils are typically well-drained, moderately permeable, fertile silt loams formed in loess deposits. The area receives between approximately 9 and 14 inches of precipitation annually, most of which occurs between October 1 and March 31.

The site is within the Columbia Plateau physiographic province. The facility is located on an upland plateau at elevations ranging from approximately 530 feet to 1,520 feet. Most of the native vegetation within the site boundary has been modified by historical and ongoing livestock grazing and past wildfires.

The general land cover types within the site boundary are Developed, Exposed Rock, 22 Grassland, Shrub-steppe, and Woodland. Specifically, functional, mature sagebrush (big sage) 23 shrub-steppe and juniper woodland habitat is patchy, occurring in specific locations within the 24 site boundary. Sagebrush (big sage) shrub-steppe is found on deep soils in patches throughout 25 the site and higher quality habitat is usually found on slopes or in draws that have been avoided 26 for agricultural development. Juniper woodland habitat is present in portions of the site, but 27 28 individual juniper trees are scattered sparsely in other habitats. Wildfires have removed some juniper trees in the Eightmile Canyon area. Riparian woodland habitat within the site is limited to 29 one narrow intermittent linear course in Eightmile canyon. Rabbitbrush/Snakeweed shrub-steppe 30 habitat is the most prevalent native habitat type within the site. Rabbitbrush/Snakeweed shrub-31 steppe is more prevalent in the north, west and middle portions of the site, with smaller patches 32 distributed throughout much of the site. Native perennial grassland is also present throughout 33 much of the north, middle and south portions of the site. 34

1. Description of the Wildlife Habitat Revegetation Areas

Wildlife habitat areas temporarily impacted during construction, based on the certificate holder's pre-construction evaluation, are presented in Table 1 and depicted on the attached figure.²

Table 1: Summary of Wildlife Habitat Revegetation Areas

Habitat Description	Temporary Impact (Acres)	
Category 2		

² MWPOPS Condition 31 Habitat Mitigation Plan (amended January 2018)

Montague Wind PowerSolar Facility: Phase 2-Revegetation Plan [As Amended January 2018XX 2020]

Habitat Description	Temporary Impact (Acres)
Grassland – Exotic Annual	10.22
Developed-Revegetated or Other Planted Grassland	11.03
Category 2 Subtotal =	21.25
Category 3	
Developed – CRP or Other Planted Grassland	0.14
Developed-Revegetated or Other Planted Grassland	7.82
Grassland – Native Perennial	0.01
Shrub-steppe – Sagebrush (Big Sage)	0.29
Category 3 Subtotal =	8.26
Category 4	
Grassland – Exotic Annual	0.85
Category 4 Subtotal =	0.85
Total Temporary Impacts to Wildlife Habitat Revegetation Areas (Categories 2, 3 and 4) =	30.36 Acres

Table 1: Summary of Wildlife Habitat Revegetation Areas

1

2 2. Description of the Cropland Revegetation Areas

Cropland areas temporarily impacted during construction, based on the certificate holder's pre-construction evaluation, are presented in Table 2 and depicted on the attached figure.³

Habitat Description	Temporary Impact (Acres)		
Category 6			
Developed – Dryland Wheat	460.41		
Developed – Irrigated Agriculture	5.98		
Developed – Other	2.58		
Total Temporary Impacts to Cropland Revegetation Areas (Category 6) =	468.97		

Table 2: S	Summary	of	Cropland	Revegetation	Areas
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6

7 III. Pre-Revegetation Agency Consultation and Revegetation Methods

8 The certificate holder shall consult with ODFW, ODOE and Gilliam County Weed

9 Control Authority prior to construction to discuss the area(s) to be restored, habitat category and

10 habitat subtype conditions, reference plot location and conditions, topsoil restoration and

11 revegetation methods, erosion and sediment control measures, and implementation schedule.

³ MWPOPS Condition 31 Habitat Mitigation Plan (amended January 2018)

Montague Wind PowerSolar Facility: Phase 2 Revegetation Plan AS AMENDED JANUARY 2018XX 2020

During construction, the certificate holder will implement site stabilization measures, including 1 seeding of temporarily disturbed areas according to its National Pollutant Discharge Elimination 2 System permit. Six months prior to commercial operation, the certificate holder will meet with 3 ODFW, ODOE and Gilliam County Weed Control Authority to review the actual extent and 4 conditions of temporarily impacted areas, confirm the revegetation methods agreed to during 5 pre-construction review are still appropriate, and to revisit reference areas.

6

7 The certificate holder shall restore temporarily disturbed wildlife habitat areas by preparing the soil and seeding using common application methods. In areas where soil is 8 removed during construction, the topsoil shall be stockpiled separately from the subsurface soils. 9 The conserved soil shall be put back in place as topsoil prior to revegetation activities. 10 Additional site-specific soil preparation and seeding methods may be determined during the 11 agency consultation period. The certificate holder shall use mulching and other appropriate 12 practices to control erosion and sediment during construction and during revegetation work. The 13 certificate holder shall select the seed mix to apply based on the pre-construction land use, as 14 described below. In order to maximize flexibility for weed control, the seed mix shall consist of 15 grasses only, with shrub seeding to occur through normal plant succession. The certificate holder 16 shall consult with ODFW as described in Section 1 below regarding appropriate seeding or 17 planting per site-specific restoration needs. 18

1. Seed Planting Methods 19

Planting should be done based on ODFW and Gilliam County Weed Control Authority 20 recommendations and in consultation with the seeding contractor at the appropriate time of year 21 to facilitate seed germination, based on weather conditions and the time of year when 22 construction-related ground disturbance occurs. The certificate holder shall choose planting 23 methods based on site-specific factors such as slope, erosion potential and the size of the area in 24 need of revegetation. Disturbed ground may require chemical or mechanical weed control before 25 weeds have a chance to go to seed. Two common application methods are described as follows. 26

27 (a) Broadcasting

Broadcast the seed mix at the specified application rate. Where feasible, apply half of the 28 total mix in one direction and the second half of mix in the direction perpendicular to first half. 29 Apply weed-free straw from a certified field or sterile straw at a rate of two tons per acre 30 immediately after applying seed. Crimp straw into the ground to a depth of two inches using a 31 crimping disc or similar device. As an alternative to crimping, a tackifier may be applied using 32 hydroseed equipment at a rate of 100 pounds per acre. Prior to mixing the tackier, visually 33 inspect the tank for cleanliness. If remnants from previous hydroseed applications exist, wash 34 tank to remove remnants. Include a tracking dye with the tackifier to aid uniform application. 35 36 Broadcasting should not be used if winds exceed five miles per hour.

(b) Drilling 37

Using an agricultural or range seed drill, drill seed at 70 percent of the recommended 38 application rate for broadcasting to a depth of $\frac{1}{4}$ inch or as recommended by the seed supplier. 39 Where feasible, apply half of the total mix in one direction and the second half of mix in the 40 direction perpendicular to first half. If mulch has been previously applied, seed may be drilled 41 through the mulch provided the drill can penetrate the straw resulting in seed-to-soil contact 42 conducive for germination. 43

Montague Wind PowerSolar Facility: Phase 2-Revegetation Plan [As Amended January 2018XX 2020]

1 IV. Restoration of Cropland

The certificate holder shall seed disturbed cropland areas with wheat or other crop seed.
The certificate holder shall consult with the landowner and farm operator to determine species
composition, seed and fertilizer application rates and application methods.

5 Cropland areas are successfully revegetated when the replanted areas achieve crop 6 production comparable to adjacent, undisturbed cultivated areas. The certificate holder shall 7 consult with the landowner or farmer to determine whether these areas have been successfully 8 revegetated and shall report to the Oregon Department of Energy (Department) on the success of 9 revegetation in these areas.

10 V. Restoration of Wildlife Habitat Areas

The certificate holder shall implement topsoil salvage and restoration methods as recommended by ODFW, the Gilliam County Weed Control Authority, and the contractor, and could include measures such as scraping and stockpiling the upper 6 inches of topsoil containing the fertile nutrients, to be segregated in windrows, kept intact and protected, and used as the topdressing for the area of disturbance.

16 The certificate holder shall seed all disturbed grassland, shrub-steppe, and other wildlife habitat subtype areas, as identified in Table 1 above, that are not cropland or other developed 17 lands. The certificate holder shall consult with ODFW, Gilliam County Weed Control Authority, 18 the landowner, and the contractor to determine the appropriate seed mix and application rate for 19 these areas based on the characteristics of the affected area. In order to maximize flexibility for 20 weed control, the seed mix shall consist of grasses only, with shrub seedling to occur through 21 normal plant succession. The mix should contain native or native like species selected based on 22 relative availability and compatibility with local growing conditions. Seed mix selection should 23 consider soil erosion potential, soil type, seed availability and the need for using native or native-24 25 like species. The certificate holder shall obtain approval of the composition of the seed mix from the Department. The certificate holder shall use seed provided by a reputable supplier and 26 complying with the Oregon Seed Law. The certificate holder shall obtain young native shrub 27 species from a qualified nursery or suitable transplants from MWPF construction zones. 28

29 VI. Noxious Weed Prevention and Control

The certificate holder shall implement weed prevention and control measure prior to and during revegetation efforts. The construction contractor will take the following measures to avoid, minimize or reduce the impacts of noxious weeds:

Information regarding target weed species will be provided at the operations and 33 maintenance building. 34 • Weed prevention and control measures, including facility inspection and 35 documentation, will be included in operations plans. 36 • Temporary ground-disturbing operations in weed-infested areas will be inspected and 37 documented in accordance with the facility monitoring plan. 38 Vehicles and equipment will be cleaned before entry into and exit from revegetation • 39 areas to help minimize introduction of noxious weed seeds to the site. 40

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- To prevent conditions favoring weed establishment, temporarily disturbed areas will • be revegetated soon as possible.
- The site will be revegetated with appropriate, locally collected native seed or native plants; when these are not available, noninvasive and nonpersistent, nonnative species may be used.
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> • Seed and straw mulch to be used for site rehabilitation will be inspected and certified free of weed seed and propagules.

VII. Monitoring 8

1. Revegetation Record 9

10 The certificate holder shall maintain a record of revegetation work for wildlife habitat areas. In the record, the certificate holder shall include the date that construction activity was 11 completed in the area to be restored, a description of the affected area and supporting figures 12 13 representing the location (location, acres affected and pre-disturbance condition), the date that revegetation work began and a description of the work done within the affected area. The 14 certificate holder shall report restoration activities to the Department for the first five years after 15 the completion of facility construction. After five years, any restoration actions will be described 16 in the annual report per OAR 345-026-0080(e). 17

2. Monitoring Procedures 18

The certificate holder shall identify reference sites in consultation with ODFW. 19 Reference sites shall be chosen to represent each of the native habitat types shown in Table 1 20 above: Grassland – Native perennial and Shrub-steppe – Sagebrush (big sage). Once the 21 reference sites are approved by ODFW, the certificate holder shall monitor those sites to 22 23 establish baseline conditions as they relate to the success criteria for the project. Documentation of baseline conditions at reference sites shall occur prior to commencement of revegetation 24 efforts. The certificate holder shall monitor the revegetation of wildlife habitat areas as described 25 in this section, unless the landowner has converted the area to a use inconsistent with the success 26 criteria. The certificate holder shall employ a qualified investigator (a botanist or revegetation 27 specialist) to examine all noncropland revegetation areas to assess vegetation cover of the 28 29 reference sites prior to construction (species, structural stage, etc.); and following completion of construction, the qualified investigator shall assess the progress of disturbed areas toward 30 meeting the success criteria described below. 31

32

Weed Control

Before the initial weed treatment begins, the herbicide applicator personnel will meet with a 33

botanist for a ¹/₂-day session to review the target species and their identification, and to identify 34

native species to be avoided, such as the native thistle (Cirsium undulatum) onsite. Following the 35

- initial meeting between the botanist and herbicide applicators, the applicators will be responsible 36
- for identifying and treating the target species. 37
- Control will be accomplished through use of herbicides targeted to the individual weed 38
- species. The herbicide is to be applied by a licensed applicator, using appropriate best 39
- management practices. Herbicide application will occur twice in year 1, in the spring 40
- (knapweeds, thistles, bindweed) and fall (other species), and once a year thereafter during the 41
Montague Wind PowerSolar Facility: Phase 2-Revegetation Plan [As Amended January 2018XX 2020]

1 spring (mid to late May), if necessary, until the success criteria are met. Herbicide will be

2 applied with a spreader sticker surfactant (e.g., Dynamic Green Concepts, Phase). Rush

- 3 skeletonweed will be treated throughout the growing season as it occurs. Information on
- 4 identification of this and other target weed species will be included in the environmental training
- 5 materials to be provided to Montague operations staff. If rush skeletonweed is observed during
- 6 routine operations activities at any time during the growing season, the licensed applicator will
- be contacted to treat this species as soon after it is observed as practicable. If control measures
 are ineffective, the certificate holder will confer with the Department, ODFW, and the Gilliam
- are ineffective, the certificate holder will confer with the Department, ODFW, at
 County Weed Control Authority to develop alternative control measures.
- 5 County weed Control Authority to develop alternative control measures.

Wildlife Habitat Recovery

10

After the first growing season following initial seeding (Year 1), a qualified investigator 11 shall inspect each revegetation area to assess revegetation success based on the success criteria 12 and to recommend remedial actions, if needed. The qualified investigator shall reinspect these 13 areas annually for the first five years following the completion of construction. The certificate 14 holder shall submit, electronically, to the Department and ODFW the investigator revegetation 15 inspection report within 60 days following each inspection. The report shall include the 16 investigator's assessment of whether the revegetated areas are trending toward meeting the 17 success criteria; assessment of factors impacting the ability of the revegetated area to trend 18 towards meeting the success criteria; description of appropriate weed control measures as 19 recommended by the Department, ODFW and Gilliam County Weed Control Authority; and, any 20 remedial actions recommended. 21

The certificate holder shall confer with the Department and ODFW within 60 days of 22 receipt of the investigator's inspection report to develop an action plan for subsequent years. If 23 an area is not trending toward meeting the success criteria at Year 5 and has not been converted 24 by the landowner to an inconsistent use, the certificate holder may propose and the Department 25 may require remedial action and additional monitoring based on an evaluation of site capability. 26 As an alternative, the certificate holder or the Department may conclude that revegetation of the 27 area was unsuccessful and propose appropriate mitigation for the permanent loss of habitat 28 29 quality and quantity. The certificate holder shall implement the action plan, subject to the approval of the Department. 30

The certificate holder's qualified investigator shall evaluate whether a wildlife habitat 31 area is trending toward meeting the success criteria by comparing the revegetation area to an 32 approved reference area. In consultation with the Department and ODFW, prior to construction, 33 the investigator shall choose reference sites near the revegetation area to represent the target 34 conditions for the revegetation effort. The investigator shall select one or more reference sites 35 that closely resemble the pre-disturbance characteristics of the revegetation area as indicated by 36 37 site conditions, including vegetation density, relative proportion of desirable vegetation and species diversity of desirable vegetation. "Desirable vegetation" means those species included in 38 the seed mix or native or native-like species, excluding noxious weeds. The investigator shall 39 consider land use patterns, soil type, local terrain, and noxious weed densities in selecting 40 reference sites. It is likely that different reference sites will be needed to represent different pre-41 disturbance habitat conditions of the disturbed areas. Once reference sites are selected by the 42 certificate holder and approved by the Department and ODFW, the reference site shall remain in 43 the same location unless approval for use of a differing reference site is obtained by the 44 Department and ODFW. In the first six-month revegetation record report submitted to the 45

MONTAGUE WIND POWERSOLAR FACILITY

Montague Wind PowerSolar Facility: Phase 2-Revegetation Plan [As Amended January 2018XX 2020]

- 1 Department, the certificate holder shall provide a map and table presenting the latitude and
- 2 longitude of the reference sites.

During the initial five years of annual monitoring, the certificate holder's qualified 3 investigator shall compare the revegetation area to the selected reference sites, unless some event 4 (such as wildfire, tilling, or intensive livestock grazing) has changed the vegetation conditions of 5 6 a reference site so that it no longer represents undisturbed conditions of the revegetation area. If such events have eliminated all suitable reference sites for a revegetation area, the investigator, 7 in consultation with the Department and ODFW, shall select one or more new reference sites. 8 Following the selection of a new reference site, an updated table and latitude/longitudinal data 9 shall be provided to the Department within a six-month revegetation record report or annual 10 compliance report, whichever report is submitted first. 11

The certificate holder will submit its vegetation monitoring methodology to ODFW and ODOE for approval prior to assessing baseline conditions and prior to annual monitoring. Within each revegetation area, the investigator shall evaluate the progress of wildlife habitat recovery in comparison to the reference sites. The investigator shall evaluate the following site conditions (both within the revegetation area and within the reference sites):

- Degree of erosion due to disturbance activities (high, moderate, or low).
- Vegetation density.
- Relative proportion of desirable vegetation as determined by the average number of stems of desirable vegetation per square foot or by a visual scan of the area, noting overall recovery status. Desirable vegetation is defined as native plant species and nonnative plant species not occurring on state or county noxious weed lists.
- Species diversity of desirable vegetation.

The certificate holder shall report the investigator's findings and recommendations regarding wildlife habitat recovery and revegetation success within 60 days of the inspector's investigation to the Department and to ODFW.

27 **3. Success Criteria**

In each monitoring report to the Department, the certificate holder shall provide an assessment of revegetation success for all previously-disturbed wildlife habitat areas. A wildlife habitat area is successfully revegetated when its habitat quality is equal to, or better than, the habitat quality of the reference site as follows:

- Native Shrubs: The average density or frequency of the shrub component should be at least 50-% of the reference site within 5 years. At least 15-% of the shrub density or frequency should be the dominant species found on the reference site. The diversity of shrub species within the revegetated areas should at least equal the shrub species diversity measured on the reference site.
- Native Grasses: Revegetated sites should maintain grass species diversity and density that is at least 85% similar to reference sites. Native bunchgrasses should be given preference. Native grasses are to be planted at rates sufficient to achieve

Montague Wind PowerSolar Facility: Phase 2 Revegetation Plan [As Amended January 2018XX 2020]

abundance and diversity characteristics of the grass component at the reference 1 2 site. 3 Non-Native Weeds: all species listed on county, state, and federal noxious weed 4 • lists shall be controlled. Revegetation sites should not contain a higher percentage 5 of non-native weed cover than the reference site. All state and federal laws 6 pertaining to noxious weeds must be followed. Highly competitive invasive 7 species such as cheatgrass and other weedy brome grasses are prohibited in seed 8 mixtures and should be actively controlled if any are found in the reclaimed areas. 9 10 When the Department finds that the condition of a wildlife habitat area satisfies the

When the Department finds that the condition of a wildlife habitat area satisfies the criteria for revegetation success, the Department shall conclude that the certificate holder has met its restoration obligations for that area. If the Department finds that the landowner has converted a wildlife habitat area to a use that is inconsistent with these success criteria, the Department shall conclude that the certificate holder has no further obligation to restore the area for wildlife habitat uses.

17 **4. Remedial Action**

After each monitoring visit, the certificate holder's qualified investigator shall report to 18 the certificate holder regarding the revegetation progress of each wildlife habitat area. The 19 investigator shall make recommendations to the certificate holder for reseeding, weed control or 20 other remedial measures for areas that are not showing progress toward achieving revegetation 21 success based upon consultation with the Department, ODFW, the Gilliam County Weed Control 22 23 authority and the contractor. The investigator shall provide a description of causal factors that may be contributing to the lack of revegetation success. The certificate holder shall take 24 appropriate action to meet the objectives of this revegetation plan. Within 60 days of receipt of 25 the investigator's monitoring report, the certificate holder shall report to the Department the 26 investigator's recommendations and the remedial actions taken. The Department may require 27 reseeding, weed control or other remedial measures in those areas that are not trending towards 28 meeting the success criteria by year 5. 29

If a wildlife habitat area is damaged by wildfire during the first five years following initial seeding, the certificate holder shall work with the landowner to restore the damaged area. The certificate holder shall continue to report on revegetation progress during the remainder of the five-year period. The certificate holder shall report to the Department and ODFW the area impacted by the fire (map or figure), damage caused by wildfire (including acreage and facility components impacted) and the cause of the fire, if known.

36 VIII. Amendment of the Plan

This revegetation plan may be amended from time to time by agreement of the certificate holder and the Council. Such amendments may be made without amendment of the site certificate. The Council authorizes the Department to agree to amendments to this plan. The Department shall notify the Council of all amendments, and the Council retains the authority to

41 approve, reject or modify any amendment of this plan agreed to by the Department.

Draft Oregon Trail Solar Facility Revegetation Plan

Montague Oregon Trail Wind PowerSolar Facility: Phase 2-Revegetation Plan [As Amended April 2019XX 2020]

1 I. Introduction

This plan describes methods, success criteria, and monitoring and reporting requirements 2 for restoration of areas temporarily disturbed during the construction of Phase 2 of the Montague 3 Oregon Trail Wind PowerSolar Facility (MWPF), excluding areas occupied by permanent 4 facility components (the "footprint").¹ The objective of revegetation is to restore the disturbed 5 areas to pre-disturbance conditions or better. The evaluation of pre-disturbance conditions is 6 7 based on evaluation of the revegetated area conditions compared to conditions of approved, fixed-point reference sites, which serve as a proxy for pre-disturbance condition. It is important 8 to note, however, that habitat conditions at reference sites may fluctuate over time depending on 9 climate and landscape-scale shifts in plant communities, as further described in Section VI. The 10 site certificate for the facility requires restoration of disturbed areas to satisfy the requirements of 11 the Fish and Wildlife Habitat standard (OAR 345-022-0060). 12

This plan was developed in consultation with the Oregon Department of Fish and 13 Wildlife (ODFW) and approved by the Oregon Energy Facility Siting Council ("Council") in the 14 Final Order on the Application for Site Certificate issued in September 2010. The plan was 15 amended in September 2017 to satisfy the requirements of Condition 92, based on the final Phase 16 1 facility design/layout and habitat impact assessment completed in 2017 to satisfy requirements 17 of Condition 31. Temporary habitat impacts (Categories 2, 3 and 4) required to be mitigated 18 through revegetation, as evaluated in September 2017 during pre-construction of the facility, are 19 represented in Table 1 below and temporary disturbance locations are presented on the attached 20 figure. 21

In XX, 2020, the Council approved Final Order on Request for Amendment 5 of the 22 Montague Wind Power Facility site certificate (Final Order on RFA5), authorizing previously 23 approved facility components (Phase 2) to be allocated under original site certificates for 24 facilities named Oregon Trail Solar Facility and Montague Solar Facility. The site certificate 25 issued for the Oregon Trail Solar Facility was based entirely on the previously approved 26 Montague Wind Power Facility site certificate; mitigation plans were based entirely on those 27 approved in the Final Order on RFA4; modifications were incorporated into the site certificates 28 and mitigation plans based on the allocation of previously approved facility components, 29 location and type of equipment. 30 31 The Oregon Trail Solar Facility is- a 41 megawatt (MW) wind and solar photovoltaic

energy facility. The facility could include use of up to 1,228 acres for solar photovoltaic energy
 generation components or up to 16 wind turbines, or any combination of equipment not to
 exceed 41 MW, within a 13,866 acre site boundary, in northeastern Gilliam County.

The Phase 2 Habitat Mitigation Plan (Condition 93) describes the area of both permanent and temporary disturbance anticipated during construction and operation of the <u>MWPFfacility</u>. The temporarily affected area includes cultivated or otherwise developed agricultural land (cropland) as well as areas of grassland, shrub-steppe habitat and other habitat subtypes (wildlife

¹ This plan is incorporated by reference in the site certificate for the Montague Wind Power Facility and must be understood in that context. It is not a "stand-alone" document. This plan does not contain all mitigation required of the certificate holder.

Montague Oregon Trail Wind PowerSolar Facility: Phase 2 Revegetation Plan [As Amended January 2018XX 2020]

habitat areas). The intensity of the construction impact will vary. In some areas, the impact will 1 be relatively light, but in other areas, heavy construction activity will remove all vegetation, 2 remove topsoil, and compact the remaining subsoil. Where vegetation has been damaged or 3 removed during construction, the certificate holder must restore suitable vegetation. In addition, 4 the certificate holder shall maintain erosion and sediment control measures put in place during 5 construction until the affected areas are restored as described in this plan and the revegetation 6 efforts have succeeded enough to control erosion. When there is enough grass in place to hold 7 the soil, the control measures can be removed. The plan specifies monitoring procedures to 8 evaluate revegetation success of disturbed wildlife habitat areas. Remedial action may be 9 necessary for wildlife habitat areas that do not show revegetation progress. Compensatory 10 mitigation may be necessary if revegetation is unsuccessful. 11

12 II. Description of the Facility Site

The facility is in Gilliam County, Oregon. The facility site is on private agricultural land used primarily for wheat and hay farming and livestock grazing. Most of the facility components are located on four primary soil types: the Olex Unit, the Ritzville Unit, the Warden Unit, and the Willis Unit. Soils are typically well-drained, moderately permeable, fertile silt loams formed in loess deposits. The area receives between approximately 9 and 14 inches of precipitation annually, most of which occurs between October 1 and March 31.

The site is within the Columbia Plateau physiographic province. The facility is located on an upland plateau at elevations ranging from approximately 530 feet to 1,520 feet. Most of the native vegetation within the site boundary has been modified by historical and ongoing livestock grazing and past wildfires.

The general land cover types within the site boundary are Developed, Exposed Rock, 23 Grassland, Shrub-steppe, and Woodland. Specifically, functional, mature sagebrush (big sage) 24 shrub-steppe and juniper woodland habitat is patchy, occurring in specific locations within the 25 site boundary. Sagebrush (big sage) shrub-steppe is found on deep soils in patches throughout 26 the site and higher quality habitat is usually found on slopes or in draws that have been avoided 27 for agricultural development. Juniper woodland habitat is present in portions of the site, but 28 individual juniper trees are scattered sparsely in other habitats. Wildfires have removed some 29 juniper trees in the Eightmile Canyon area. Riparian woodland habitat within the site is limited to 30 one narrow intermittent linear course in Eightmile canyon. Rabbitbrush/Snakeweed shrub-steppe 31 habitat is the most prevalent native habitat type within the site. Rabbitbrush/Snakeweed shrub-32 steppe is more prevalent in the north, west and middle portions of the site, with smaller patches 33 distributed throughout much of the site. Native perennial grassland is also present throughout 34 much of the north, middle and south portions of the site. 35

36 1. Description of the Wildlife Habitat Revegetation Areas

Wildlife habitat areas temporarily impacted during construction, based on the certificate holder's pre-construction evaluation, are presented in Table 1 and depicted on the attached figure.²

² MWPOPS Condition 31 Habitat Mitigation Plan (amended January 2018)

Montague Oregon Trail Wind PowerSolar Facility: Phase 2 Revegetation Plan [As Amended January 2018XX 2020]

Habitat Description	Temporary Impact (Acres)
Category 2	
Grassland – Exotic Annual	10.22
Developed-Revegetated or Other Planted Grassland	11.03
Category 2 Subtotal =	21.25
Category 3	
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Grassland – Native Perennial	0.01
Shrub-steppe – Sagebrush (Big Sage)	0.29
Category 3 Subtotal =	8.26
Category 4	
Grassland – Exotic Annual	0.85
Category 4 Subtotal =	0.85
Total Temporary Impacts to Wildlife Habitat Revegetation Areas (Categories 2, 3 and 4) =	30.36 Acres

Table 1: Summary of Wildlife Habitat Revegetation Areas

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2 2. Description of the Cropland Revegetation Areas

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4 holder's pre-construction evaluation, are presented in Table 2 and depicted on the attached figure.³

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Habitat Description	Temporary Impact (Acres)
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Developed – Dryland Wheat	460.41
Developed – Irrigated Agriculture	5.98
Developed – Other	2.58
Total Temporary Impacts to Cropland Revegetation Areas (Category 6) =	468.97

Table 2: Summary of Cropland Revegetation Areas

6

III. Pre-Revegetation Agency Consultation and Revegetation Methods 7

The certificate holder shall consult with ODFW, ODOE and Gilliam County Weed 8 9 Control Authority prior to construction to discuss the area(s) to be restored, habitat category and

³ MWPOPS Condition 31 Habitat Mitigation Plan (amended January 2018)

Montague Oregon Trail Wind PowerSolar Facility: Phase 2- Revegetation Plan [As Amended January 2018XX 2020]

1 habitat subtype conditions, reference plot location and conditions, topsoil restoration and

2 revegetation methods, erosion and sediment control measures, and implementation schedule.

3 During construction, the certificate holder will implement site stabilization measures, including

4 seeding of temporarily disturbed areas according to its National Pollutant Discharge Elimination

- 5 System permit. Six months prior to commercial operation, the certificate holder will meet with
- 6 ODFW, ODOE and Gilliam County Weed Control Authority to review the actual extent and 7 conditions of temporarily impacted areas, confirm the revegetation methods agreed to during
- pre-construction review are still appropriate, and to revisit reference areas.

The certificate holder shall restore temporarily disturbed wildlife habitat areas by 9 preparing the soil and seeding using common application methods. In areas where soil is 10 removed during construction, the topsoil shall be stockpiled separately from the subsurface soils. 11 The conserved soil shall be put back in place as topsoil prior to revegetation activities. 12 Additional site-specific soil preparation and seeding methods may be determined during the 13 agency consultation period. The certificate holder shall use mulching and other appropriate 14 practices to control erosion and sediment during construction and during revegetation work. The 15 certificate holder shall select the seed mix to apply based on the pre-construction land use, as 16 described below. In order to maximize flexibility for weed control, the seed mix shall consist of 17 grasses only, with shrub seeding to occur through normal plant succession. The certificate holder 18 shall consult with ODFW as described in Section 1 below regarding appropriate seeding or 19 planting per site-specific restoration needs. 20

21 **1. Seed Planting Methods**

Planting should be done based on ODFW and Gilliam County Weed Control Authority recommendations and in consultation with the seeding contractor at the appropriate time of year to facilitate seed germination, based on weather conditions and the time of year when construction-related ground disturbance occurs. The certificate holder shall choose planting methods based on site-specific factors such as slope, erosion potential and the size of the area in need of revegetation. Disturbed ground may require chemical or mechanical weed control before weeds have a chance to go to seed. Two common application methods are described as follows.

29 (a) Broadcasting

30 Broadcast the seed mix at the specified application rate. Where feasible, apply half of the total mix in one direction and the second half of mix in the direction perpendicular to first half. 31 Apply weed-free straw from a certified field or sterile straw at a rate of two tons per acre 32 immediately after applying seed. Crimp straw into the ground to a depth of two inches using a 33 crimping disc or similar device. As an alternative to crimping, a tackifier may be applied using 34 hydroseed equipment at a rate of 100 pounds per acre. Prior to mixing the tackier, visually 35 36 inspect the tank for cleanliness. If remnants from previous hydroseed applications exist, wash tank to remove remnants. Include a tracking dye with the tackifier to aid uniform application. 37 Broadcasting should not be used if winds exceed five miles per hour. 38

39 (b) Drilling

Using an agricultural or range seed drill, drill seed at 70 percent of the recommended
application rate for broadcasting to a depth of ¼ inch or as recommended by the seed supplier.
Where feasible, apply half of the total mix in one direction and the second half of mix in the
direction perpendicular to first half. If mulch has been previously applied, seed may be drilled

Montague Oregon Trail Wind PowerSolar Facility: Phase 2 Revegetation Plan [As Amended January 2018XX 2020]

through the mulch provided the drill can penetrate the straw resulting in seed-to-soil contact
 conducive for germination.

3 IV. Restoration of Cropland

The certificate holder shall seed disturbed cropland areas with wheat or other crop seed.
The certificate holder shall consult with the landowner and farm operator to determine species
composition, seed and fertilizer application rates and application methods.

Cropland areas are successfully revegetated when the replanted areas achieve crop
production comparable to adjacent, undisturbed cultivated areas. The certificate holder shall
consult with the landowner or farmer to determine whether these areas have been successfully
revegetated and shall report to the Oregon Department of Energy (Department) on the success of
revegetation in these areas.

12 V. Restoration of Wildlife Habitat Areas

The certificate holder shall implement topsoil salvage and restoration methods as recommended by ODFW, the Gilliam County Weed Control Authority, and the contractor, and could include measures such as scraping and stockpiling the upper 6 inches of topsoil containing the fertile nutrients, to be segregated in windrows, kept intact and protected, and used as the topdressing for the area of disturbance.

The certificate holder shall seed all disturbed grassland, shrub-steppe, and other wildlife 18 habitat subtype areas, as identified in Table 1 above, that are not cropland or other developed 19 lands. The certificate holder shall consult with ODFW, Gilliam County Weed Control Authority, 20 the landowner, and the contractor to determine the appropriate seed mix and application rate for 21 these areas based on the characteristics of the affected area. In order to maximize flexibility for 22 weed control, the seed mix shall consist of grasses only, with shrub seedling to occur through 23 24 normal plant succession. The mix should contain native or native like species selected based on relative availability and compatibility with local growing conditions. Seed mix selection should 25 consider soil erosion potential, soil type, seed availability and the need for using native or native-26 27 like species. The certificate holder shall obtain approval of the composition of the seed mix from 28 the Department. The certificate holder shall use seed provided by a reputable supplier and complying with the Oregon Seed Law. The certificate holder shall obtain young native shrub 29 30 species from a qualified nursery or suitable transplants from MWPF construction zones.

31 VI. Noxious Weed Prevention and Control

37

38

The certificate holder shall implement weed prevention and control measure prior to and during revegetation efforts. The construction contractor will take the following measures to avoid, minimize or reduce the impacts of noxious weeds:

- Information regarding target weed species will be provided at the operations and maintenance building.
 - Weed prevention and control measures, including facility inspection and documentation, will be included in operations plans.
- Temporary ground-disturbing operations in weed-infested areas will be inspected and documented in accordance with the facility monitoring plan.

		Me	ntague <u>Oregon Trail</u> Wind Power<u>Solar</u> Facility: Phase 2-Revegetation Plan [As Amended January 2018XX 2020]
1 2		•	Vehicles and equipment will be cleaned before entry into and exit from revegetation areas to help minimize introduction of noxious weed seeds to the site.
3 4		•	To prevent conditions favoring weed establishment, temporarily disturbed areas will be revegetated soon as possible.
5 6 7		•	The site will be revegetated with appropriate, locally collected native seed or native plants; when these are not available, noninvasive and nonpersistent, nonnative species may be used.
8 9		•	Seed and straw mulch to be used for site rehabilitation will be inspected and certified free of weed seed and propagules.
10	VII.	M	onitoring

11 **1. Revegetation Record**

The certificate holder shall maintain a record of revegetation work for wildlife habitat 12 areas. In the record, the certificate holder shall include the date that construction activity was 13 completed in the area to be restored, a description of the affected area and supporting figures 14 representing the location (location, acres affected and pre-disturbance condition), the date that 15 revegetation work began and a description of the work done within the affected area. The 16 certificate holder shall report restoration activities to the Department for the first five years after 17 the completion of facility construction. After five years, any restoration actions will be described 18 in the annual report per OAR 345-026-0080(e). 19

20 2. Monitoring Procedures

The certificate holder shall identify reference sites in consultation with ODFW. 21 Reference sites shall be chosen to represent each of the native habitat types shown in Table 1 22 above: Grassland – Native perennial and Shrub-steppe – Sagebrush (big sage). Once the 23 reference sites are approved by ODFW, the certificate holder shall monitor those sites to 24 establish baseline conditions as they relate to the success criteria for the project. Documentation 25 of baseline conditions at reference sites shall occur prior to commencement of revegetation 26 efforts. The certificate holder shall monitor the revegetation of wildlife habitat areas as described 27 in this section, unless the landowner has converted the area to a use inconsistent with the success 28 criteria. The certificate holder shall employ a qualified investigator (a botanist or revegetation 29 specialist) to examine all noncropland revegetation areas to assess vegetation cover of the 30 reference sites prior to construction (species, structural stage, etc.); and following completion of 31 32 construction, the qualified investigator shall assess the progress of disturbed areas toward meeting the success criteria described below. 33

34 <u>Weed Control</u>

Before the initial weed treatment begins, the herbicide applicator personnel will meet with a botanist for a ¹/₂-day session to review the target species and their identification, and to identify native species to be avoided, such as the native thistle (*Cirsium undulatum*) onsite. Following the initial meeting between the botanist and herbicide applicators, the applicators will be responsible for identifying and treating the target species.

Control will be accomplished through use of herbicides targeted to the individual weed
 species. The herbicide is to be applied by a licensed applicator, using appropriate best

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1 management practices. Herbicide application will occur twice in year 1, in the spring

2 (knapweeds, thistles, bindweed) and fall (other species), and once a year thereafter during the

3 spring (mid to late May), if necessary, until the success criteria are met. Herbicide will be

4 applied with a spreader sticker surfactant (e.g., Dynamic Green Concepts, Phase). Rush

5 skeletonweed will be treated throughout the growing season as it occurs. Information on

6 identification of this and other target weed species will be included in the environmental training

7 materials to be provided to Montague operations staff. If rush skeletonweed is observed during

routine operations activities at any time during the growing season, the licensed applicator will
be contacted to treat this species as soon after it is observed as practicable. If control measures

are ineffective, the certificate holder will confer with the Department, ODFW, and the Gilliam

11 County Weed Control Authority to develop alternative control measures.

Wildlife Habitat Recovery

12

After the first growing season following initial seeding (Year 1), a qualified investigator 13 shall inspect each revegetation area to assess revegetation success based on the success criteria 14 and to recommend remedial actions, if needed. The qualified investigator shall reinspect these 15 areas annually for the first five years following the completion of construction. The certificate 16 holder shall submit, electronically, to the Department and ODFW the investigator revegetation 17 inspection report within 60 days following each inspection. The report shall include the 18 investigator's assessment of whether the revegetated areas are trending toward meeting the 19 success criteria; assessment of factors impacting the ability of the revegetated area to trend 20 21 towards meeting the success criteria; description of appropriate weed control measures as recommended by the Department, ODFW and Gilliam County Weed Control Authority; and, any 22 23 remedial actions recommended.

The certificate holder shall confer with the Department and ODFW within 60 days of 24 receipt of the investigator's inspection report to develop an action plan for subsequent years. If 25 an area is not trending toward meeting the success criteria at Year 5 and has not been converted 26 by the landowner to an inconsistent use, the certificate holder may propose and the Department 27 may require remedial action and additional monitoring based on an evaluation of site capability. 28 29 As an alternative, the certificate holder or the Department may conclude that revegetation of the area was unsuccessful and propose appropriate mitigation for the permanent loss of habitat 30 quality and quantity. The certificate holder shall implement the action plan, subject to the 31 approval of the Department. 32

The certificate holder's qualified investigator shall evaluate whether a wildlife habitat 33 area is trending toward meeting the success criteria by comparing the revegetation area to an 34 approved reference area. In consultation with the Department and ODFW, prior to construction, 35 the investigator shall choose reference sites near the revegetation area to represent the target 36 37 conditions for the revegetation effort. The investigator shall select one or more reference sites that closely resemble the pre-disturbance characteristics of the revegetation area as indicated by 38 site conditions, including vegetation density, relative proportion of desirable vegetation and 39 species diversity of desirable vegetation. "Desirable vegetation" means those species included in 40 the seed mix or native or native-like species, excluding noxious weeds. The investigator shall 41 consider land use patterns, soil type, local terrain, and noxious weed densities in selecting 42 reference sites. It is likely that different reference sites will be needed to represent different pre-43 disturbance habitat conditions of the disturbed areas. Once reference sites are selected by the 44 certificate holder and approved by the Department and ODFW, the reference site shall remain in 45

Montague Oregon Trail Wind PowerSolar Facility: Phase 2 Revegetation Plan [As Amended January 2018XX 2020]

1 the same location unless approval for use of a differing reference site is obtained by the

2 Department and ODFW. In the first six-month revegetation record report submitted to the

3 Department, the certificate holder shall provide a map and table presenting the latitude and

4 longitude of the reference sites.

During the initial five years of annual monitoring, the certificate holder's qualified 5 investigator shall compare the revegetation area to the selected reference sites, unless some event 6 (such as wildfire, tilling, or intensive livestock grazing) has changed the vegetation conditions of 7 a reference site so that it no longer represents undisturbed conditions of the revegetation area. If 8 such events have eliminated all suitable reference sites for a revegetation area, the investigator, 9 in consultation with the Department and ODFW, shall select one or more new reference sites. 10 Following the selection of a new reference site, an updated table and latitude/longitudinal data 11 shall be provided to the Department within a six-month revegetation record report or annual 12 13 compliance report, whichever report is submitted first.

The certificate holder will submit its vegetation monitoring methodology to ODFW and ODOE for approval prior to assessing baseline conditions and prior to annual monitoring. Within each revegetation area, the investigator shall evaluate the progress of wildlife habitat recovery in comparison to the reference sites. The investigator shall evaluate the following site conditions (both within the revegetation area and within the reference sites):

- Degree of erosion due to disturbance activities (high, moderate, or low).
- Vegetation density.
- Relative proportion of desirable vegetation as determined by the average number of
 stems of desirable vegetation per square foot or by a visual scan of the area, noting
 overall recovery status. Desirable vegetation is defined as native plant species and
 nonnative plant species not occurring on state or county noxious weed lists.
- Species diversity of desirable vegetation.

The certificate holder shall report the investigator's findings and recommendations regarding wildlife habitat recovery and revegetation success within 60 days of the inspector's investigation to the Department and to ODFW.

29 **3. Success Criteria**

In each monitoring report to the Department, the certificate holder shall provide an assessment of revegetation success for all previously-disturbed wildlife habitat areas. A wildlife habitat area is successfully revegetated when its habitat quality is equal to, or better than, the habitat quality of the reference site as follows:

- Native Shrubs: The average density or frequency of the shrub component should be at least 50-% of the reference site within 5 years. At least 15-% of the shrub density or frequency should be the dominant species found on the reference site. The diversity of shrub species within the revegetated areas should at least equal the shrub species diversity measured on the reference site.
 Native Greeces: Payagetated sites should maintain grees species diversity and
- Native Grasses: Revegetated sites should maintain grass species diversity and density that is at least 85% similar to reference sites. Native bunchgrasses should be given preference. Native grasses are to be planted at rates sufficient to achieve

Montague Oregon Trail Wind PowerSolar Facility: Phase 2 Revegetation Plan [As Amended January 2018XX 2020]

abundance and diversity characteristics of the grass component at the reference site.

- Non-Native Weeds: all species listed on county, state, and federal noxious weed lists shall be controlled. Revegetation sites should not contain a higher percentage of non-native weed cover than the reference site. All state and federal laws pertaining to noxious weeds must be followed. Highly competitive invasive species such as cheatgrass and other weedy brome grasses are prohibited in seed mixtures and should be actively controlled if any are found in the reclaimed areas.
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When the Department finds that the condition of a wildlife habitat area satisfies the criteria for revegetation success, the Department shall conclude that the certificate holder has met its restoration obligations for that area. If the Department finds that the landowner has converted a wildlife habitat area to a use that is inconsistent with these success criteria, the Department shall conclude that the certificate holder has no further obligation to restore the area for wildlife habitat uses.

16 4. Remedial Action

After each monitoring visit, the certificate holder's qualified investigator shall report to 17 the certificate holder regarding the revegetation progress of each wildlife habitat area. The 18 investigator shall make recommendations to the certificate holder for reseeding, weed control or 19 other remedial measures for areas that are not showing progress toward achieving revegetation 20 success based upon consultation with the Department, ODFW, the Gilliam County Weed Control 21 authority and the contractor. The investigator shall provide a description of causal factors that 22 may be contributing to the lack of revegetation success. The certificate holder shall take 23 appropriate action to meet the objectives of this revegetation plan. Within 60 days of receipt of 24 the investigator's monitoring report, the certificate holder shall report to the Department the 25 investigator's recommendations and the remedial actions taken. The Department may require 26 reseeding, weed control or other remedial measures in those areas that are not trending towards 27 meeting the success criteria by year 5. 28

If a wildlife habitat area is damaged by wildfire during the first five years following initial seeding, the certificate holder shall work with the landowner to restore the damaged area. The certificate holder shall continue to report on revegetation progress during the remainder of the five-year period. The certificate holder shall report to the Department and ODFW the area impacted by the fire (map or figure), damage caused by wildfire (including acreage and facility components impacted) and the cause of the fire, if known.

35 VIII. Amendment of the Plan

This revegetation plan may be amended from time to time by agreement of the certificate holder and the Council. Such amendments may be made without amendment of the site certificate. The Council authorizes the Department to agree to amendments to this plan. The Department shall notify the Council of all amendments, and the Council retains the authority to approve, reject or modify any amendment of this plan agreed to by the Department.

Attachment F Draft Weed Control Plans

Draft Amended Montague Wind Facility Weed Control Plan Draft Montague Solar Facility Weed Control Plan Draft Oregon Trail Solar Facility Weed Control Plan Draft Amended Montague Wind Facility Weed Control Plan

Weed Control Plan Montague Wind Power Facility-Phase 1

Prepared for Avangrid Renewables, LLC d/b/a Montague Wind Power Facility, LLC Arlington, Oregon

February 2018XX 2020



CH2M HILL Engineers, Inc. 2020 SW 4th Avenue, Suite 300 Portland, Oregon 97201

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Appendix

Noxious Weed Policy and Classification System 2017

Table

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2	Recommended Weed Treatments for Target Weed Species 4

Acronyms and Abbreviations

CH2M/CH2M HILL CH2M HILL Engineers, Inc.

Facility Montague Wind Power Facility

Montague Montague Wind Power Facility, LLC

1.0 Introduction

Montague Wind Power Facility, LLC (Montague) holds a Site Certificate from the Oregon Energy Facility Siting Council for the Montague Wind Power Facility (Facility) in Gilliam County, Oregon. Condition 43 of the site certificate requires the following:

"During construction and operation of the facility, the certificate holder shall implement a weed control plan approved by the Gilliam County Weed Control Officer or other appropriate County officials to control the introduction and spread of noxious weeds."

This plan was prepared to comply with Condition 43 and describes the weed control measures that will be implemented during construction and operation of the Facility.

1.1 Background Information

The Gilliam County Weed Department works to keep noxious weed at a minimum on roadways and throughout the county, assists area landowners with land maintenance needs, and follows the Oregon Department of Agriculture (ODA) noxious weed policy and classification system as part of ODA's Noxious Weed Control Program (ODA, 2017a; see the appendix to this plan). Noxious weeds are identified on the State of Oregon noxious weed list and mapped by ODA as occurring in Gilliam County. "A" listed weeds are economically important, nonnative species with limited distribution in the county. "B" listed weeds are economically important, nonnative species that are regionally abundant. At the County level, eradication is required for "A" listed weeds at an intensive level, with containment the goal for "B" listed weeds. "T" listed weeds are a designated group of weed species that are selected and will be the focus for prevention and control by the Noxious Weed Control Program. Action against these weeds will receive priority (see the appendix to this plan).

For the purposes of this weed control plan, the term "weed" refers to any species on the Gilliam County weed list regardless of its "A" or "B" status. The Facility area includes cultivated or otherwise developed agricultural land (cropland) as well as areas of grassland, shrub-steppe habitat, and other habitat subtypes (wildlife habitat areas). Noxious weeds are present within the site boundary, and construction activities could spread these weeds. This plan outlines the measures Montague will implement to control weeds within areas disturbed by Facility construction and operation. The Facility will temporarily disturb approximately 47 acresof wildlife habitat and approximately 611 acres of cropland during road, transmission line, and windturbine construction. Temporarily disturbed areas will be revegetated as described in the site revegetation plan (Montague, 2017).

1.2 Weed Control Goals

Weed species can adversely affect the structure and composition, and therefore the inherent values of the revegetation and habitat mitigation areas. Overarching goals of post-construction operations are prevention, identification, and control of weeds. Guidance and best management practices to accomplish these goals are provided in Section 3.0.

2.0 Weed Species of Concern

Montague completed field surveys during spring and summer 2009 through 2010, and in spring 2017 to map habitat types and other resources. Although these surveys were not targeted at weed species, a number of species on the ODA weed list (ODA, 2017b) were observed (see Table 1). These species were noted to occur in low densities throughout the site boundary and were not necessarily located within or

adjacent to the disturbance areas. Where the weed species occurred, their cover was between 1 and 3 percent.

The results of these preconstruction surveys were reviewed along with the weed maps for Gilliam County (ODA, 2017a) to identify the weed species of greatest concern either occurring or with a high potential for occurring in the vicinity of the Facility site boundary. Additional monitoring will be necessary to ensure that each weed species on the Gilliam County list is identified and treated appropriately.

Common Name	Scientific Name	Mapped in Facility Vicinity ^a	Observed 2009-2010 ^b	Observed 2017 ^c
A List Weeds				
Musk thistle	Carduus nutans	Х		
Rush skeletonweed	Chondrilla juncea	Х	Х	
Spotted knapweed	Centaurea stoebe	х		
Yellow starthistle	Centaurea solstitialis	Х		
B List Weeds				
Dicots				
Bull thistle	Cirsium vulgare	Х		
Canada thistle	Cirsium arvense	Х		
Dalmation toadflax	Linaria dalmatica	х		
Diffuse knapweed	Centaurea diffusa	х		х
Field bindweed	Convolvulus arvensis		Х	х
Knapweed	Centaurea sp.	х		х
Kochia	Kochia (Bassia) sp.	х		
Poison hemlock	Conium maculatum	х		
Puncturevine	Tribulus terrestris	х		
Russian knapweed	Acroptilon repens	х		
Scotch thistle	Onopordum acanthium	х		
Spikeweed	Hemozonia pungens	х		
Whitetop	Cardaria draba	х		х
Monocots				
Jointed goatgrass	Aegilops cylindrica	Х	Х	Х
Medusahead rye	Taeniatherum caput-medusae	х	Х	х
T List Weeds				
Dalmation Toadflax	Linaria dalmatica	Х		
Kochia	Kochia (Bassia) sp.	х		
Rush skeletonweed	Chondrilla juncea	х	Х	
Puncturevine	Tribulus terrestris	х		
Yellow starthistle	Centaurea solstitialis	х		

Table 1. Weed Species of Greatest Concern in Vicinity of Facility Site Boundary

^a Source: ODA, 2017b.

Table 1. Weed Species of Greatest Concern in Vicinity of Facility Site Boundary

Common Name	Scientific Name	Mapped in Facility Vicinity ^a	Observed 2009-2010 ^b	Observed 2017 ^c	
^b Sources:					
CH2M HILL, 2010a. Field surveys conducted June 2010.					
CH2M HILL, 2010b. Field surveys conducted October 2009 and February 2010.					

^c Sources:

CH2M, 2017a. Field surveys conducted May - June 2017.

CH2M, 2017b. Field surveys conducted April - May 2017.

HDR Engineering, Inc., 2017. Field surveys conducted April 2017.

3.0 Weed Control Plan

3.1 Overview

Long-term weed control will be accomplished through the seeding of perennial grasses known to compete well with noxious weeds, such as thickspike wheatgrass (*Elymus lanceolatus*) and Sherman big bluegrass (*Poa secunda*), or by maintaining the existing cover in the buffers. Short-term weed control will be through herbicide use. However, it will be important to ensure that the short-term herbicide use does not affect the establishment of the perennial grass cover intended to provide long-term control. Early detection and management of small populations before they can expand into larger populations is extremely important for successful control.

Weed control will continue until the disturbed areas meet the success criteria described above with respect to the designated reference sites. Supplemental seeding may be needed to achieve this goal. Subsequent fertilizer application will be limited in areas treated for weeds, and the timing of the seeding will need to be coordinated with any herbicide applications.

The knapweeds, rush skeletonweed, field bindweed, whitetop, yellow starthistle, and medusahead rye are the species of primary concern ("target" species) as they were observed onsite during the preconstruction surveys. Treatment specifics will differ depending on the following variables:

- Disturbed area or buffer
- Proximity to biologically sensitive areas

The target species will be the same for all onsite areas, but the treatment implementation will vary slightly according to these parameters.

The herbicides used and the timing of application will differ depending on whether the species are (1) perennial, broad-leaved, or dicot weeds (knapweeds and thistles, field bindweed, whitetop), or (2) annual grasses or monocots (goatgrass and medusahead). Appropriate herbicides differ substantially between dicots and monocots.

3.2 Best Management Practices

Montague will implement best management practices during Facility construction and operation to help prevent the invasion and spread of noxious weeds onsite. These may include the following:

• Information regarding target weed species will be provided at the operations and maintenance building.

- Weed prevention and control measures, including Facility inspection and documentation, will be included in operations plans.
- Temporary ground-disturbing operations in weed-infested areas will be inspected and documented in accordance with Facility monitoring plan.
- Vehicles and equipment will be cleaned prior to entry into revegetation areas to help minimize introduction of noxious weed seeds to the site.
- To prevent conditions favoring weed establishment, temporarily disturbed areas will be revegetated soon as possible.
- The site will be revegetated with appropriate, locally collected native seed or native plants; when these are not available, noninvasive and nonpersistent, nonnative species may be used.
- Seed and straw mulch to be used for site rehabilitation will be inspected and certified free of weed seed and propagules.

3.3 Treatment Specifics

3.3.1 Disturbed Areas

Before the initial weed treatment begins, the herbicide applicator personnel will meet with a botanist for a ½-day session to review the target species and their identification, and to identify native species to be avoided, such as the native thistle (*Cirsium undulatum*) onsite. Following the initial meeting between the botanist and herbicide applicators, the applicators will be responsible for identifying and treating the target species.

Control will be accomplished through use of herbicides targeted to the individual weed species. The herbicide is to be applied by a licensed applicator, using appropriate best management practices. Herbicide application will occur twice in year 1, in the spring (knapweeds, thistles, bindweed) and fall (other species), and once a year thereafter during the spring (mid to late May), if necessary, until the success criteria are met. Herbicide will be applied with a spreader sticker surfactant (e.g., Dynamic Green Concepts, Phase). Rush skeletonweed will be treated throughout the growing season as it occurs. Information on identification of this and other target weed species will be included in the environmental training materials to be provided to Montague operations staff. If rush skeletonweed is observed during routine operations activities at any time during the growing season, the licensed applicator will be contacted to treat this species as soon after it is observed as practicable. Table 2 provides a summary of recommended treatment by target species.

Weed Category	Common name	Scientific Name	Recommended Treatment
Knapweeds			
	Diffuse knapweed	Centaurea diffusa	Spot application of post-emergent, species-
	Spotted knapweed	Centaurea maculosa	specific herbicide.
	Russian knapweed	Acroptilon repens	
	Yellow starthistle	Centaurea solstitialis	
Thistles			
	Bull thistle	Cirsium vulgare	Spot application of post-emergent, species-
	Creeping thistle	Cirsium arvense	specific herbicide.
	Musk thistle	Carduus nutans	

Table 2. Recommended Weed Treatments for Target Weed Species

Weed Category	Common name	Scientific Name	Recommended Treatment
	Scotch thistle	Onopordum acanthium	-
Other Dicot	(Broad-leaved) Weeds		
	Dalmatian toadflax	Linaria dalmatica	Spot application of post-emergent, species-
	Field bindweed	Convolvulus arvensis	specific herbicide.
	Kochia	Kochia sp.	
	Poison hemlock	Conium maculatum	
	Puncturevine	Tribulus terrestris	
	Spikeweed	Hemozonia pungens	
	Rush skeletonweed	Chondrilla juncea	
	Whitetop	Lepidium draba	
Grasses			
	Jointed goatgrass	Aegilops cylindrica	Spot application of post-emergent, species-
	Medusahead rye	Taeniatherum caput- medusae	specific herbicide.

Table 2.	Recommended	Weed	Treatments fo	r Target	Weed S	pecies
TUDIC Z.	necommenaca	VV CCU	incutinents io	I TUISCL	vvccu J	pecies

3.3.2 Special Considerations

During treatment activities, Montague will consider the following sensitive areas:

- <u>Washington ground squirrel sites</u>. The Washington ground squirrel is sensitive to disturbance during the breeding season (generally January through March, sometimes lasting through April). The diet of the Washington ground squirrel consists mostly of herbaceous vegetation, as well as flowers, roots, bulbs, seeds, and insects. Therefore, no herbicides will be sprayed within 400 meters (1,200 feet) of identified Washington ground squirrel sites during the breeding season.
- <u>Ephemeral streams/draws</u>. No herbicide will be sprayed where the drift can enter standing water or saturated soil. This precaution will likely only be necessary during the spring. However, it will be the herbicide applicators' responsibility to ensure that no herbicide or drift enters standing water.

4.0 Monitoring

Monitoring will be conducted on an annual basis by a qualified botanist for the first 5 years following initial seeding to assess weed growth and to recommend weed control measures. The weed monitoring will consist of two general components:

- Site survey to identify weed species that have established within the disturbed areas
- Inspections of treated areas to assess the success of the weed treatments

The site survey will be a pedestrian survey of disturbed areas in mid to late May. The survey will be scheduled to be initiated slightly before the herbicide application to identify any weed species. The focus will be on weed species observed prior to construction on the site (knapweed, starthistle, field bindweed, whitetop, jointed goatgrass, medusahead rye), as well as any other species on the Gilliam County weed list that might require different control methods.

The results of the site survey will be summarized in a short memorandum in which (1) any new weed species observed and treatment protocols are identified, (2) the location and weed species within the buffers are described, and (3) reference plot cover values are listed.

Subsequent monitoring results will be summarized in short memorandums in which the treatment success is described, any recommendations to improve treatment success (if necessary) are made, and any new weed species or emergence are noted.

5.0 References

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Appendix Noxious Weed Policy and Classification System 2017 Oregon Department of Agriculture

Noxious Weed Policy and Classification System 2017



Noxious Weed Control Program

Address: 635 Capitol Street NE Salem, Oregon 97301 Phone: (503) 986-4621 Fax: (503) 986-4786 www.oregon.gov/ODA/programs/Weeds/Pages/AboutWeeds.aspx

Mission Statement

To protect Oregon's natural resources and agricultural economy from the invasion and proliferation of invasive noxious weeds.

Program Overview

The Oregon Department of Agriculture (ODA) Noxious Weed Control Program provides statewide leadership for coordination and management of state listed noxious weeds. The state program focuses on noxious weed control efforts by implementing early detection and rapid response projects for new invasive noxious weeds, implementing biological control, implementing statewide inventory and survey, assisting the public and cooperators through technology transfer and noxious weed education, maintaining noxious weed data and maps for priority listed noxious weeds, and assisting land managers and cooperators with integrated weed management projects. The Noxious Weed Control Program also supports the Oregon State Weed Board (OSWB) with administration of the OSWB Grant Program, developing statewide management objectives, developing Weed Risk Assessments, and maintaining the State Noxious Weed List.

> Tim Butler Program Manager <u>tbutler@oda.state.or.us</u> 503-986-4621

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Noxious Weed Control Policy and Classification System

<u>Definition</u>

"Noxious Weed" means a terrestrial, aquatic or marine plant designated by the State Weed Board under ORS 569.615 as among those representing the greatest public menace and as a top priority for action by weed control programs.

Noxious weeds have become so thoroughly established and are spreading so rapidly on private, state, county, and federally owned lands, that they have been declared by ORS 569-350 to be a menace to public welfare. Steps leading to eradication, where possible, and intensive control are necessary. It is further recognized that the responsibility for eradication and intensive control rests not only on the private landowner and operator, but also on the county, state, and federal government.

Weed Control Policy

Therefore, it shall be the policy of ODA to:

- 1. Assess non-native plants through risk assessment processes and make recommendations to the State Weed Board for potential listing.
- 2. Rate and classify weeds at the state level.
- 3. Prevent the establishment and spread of listed noxious weeds.
- 4. Encourage and implement the control or containment of infestations of listed noxious weed species and, if possible, eradicate them.
- 5. Develop and manage a biological weed control program.
- 6. Increase awareness of potential economic losses and other undesirable effects of existing and newly invading noxious weeds, and to act as a resource center for the dissemination of information.
- 7. Encourage and assist in the organization and operation of noxious weed control programs with government agencies and other weed management entities.
- 8. Develop partnerships with county weed control districts, universities, and other cooperators in the development of control methods.
- 9. Conduct statewide noxious weed surveys and weed control efficacy studies.

Weed Classification System

The purpose of this Classification System is to:

- 1. Act as the ODA's official guideline for prioritizing and implementing noxious weed control projects.
- 2. Assist the ODA in the distribution of available funds through Oregon State Weed Board to assist county weed programs, cooperative weed management groups, private landowners, and other weed management entities.
- 3. Serve as a model for private and public sectors in developing noxious weed classification systems that aid in setting effective noxious weed control strategies.

Criteria for Determining Economic and Environmental Significance of Noxious Weeds is Based Upon:

Detrimental Effects

- 1. A plant species that causes or has the potential to cause severe negative impacts to Oregon's agricultural economy and natural resources.
- 2. A plant species that has the potential to or does endanger native flora and fauna by its encroachment into forest, range, and conservation areas.
- 3. A plant species that has the potential or does hamper the full utilization and enjoyment of recreational areas.
- 4. A plant species that is poisonous, injurious, or otherwise harmful to humans and/or animals.

Plant Reproduction

- 1. A plant that reproduces by seed capable of being dispersed over wide areas or that is long-lived, or produced in large numbers.
- 2. A plant species that reproduces and spreads by tubers, creeping roots, stolons, rhizomes, or other natural vegetative means.

<u>Distribution</u>

- 1. A weed of known economic importance which occurs in Oregon in small enough infestations to make eradication/containment possible; or not known to occur, but its presence in neighboring states makes future occurrence seem imminent.
- 2. A weed of economic or ecological importance and of limited distribution in Oregon.
- 3. A weed that has not infested the full extent of its potential habitat in Oregon.

Difficulty of Control

A plant species that is not easily controlled with current management practices such as chemical, cultural, biological, and physical methods.

Noxious Weed Control Classification Definitions

Noxious weeds, for the purpose of this system, shall be listed as either A or B, and may also be designated as T, which are priority targets for control, as directed by the Oregon State Weed Board.

• A Listed Weed:

A weed of known economic importance which occurs in the state in small enough infestations to make eradication or containment possible; or is not known to occur, but its presence in neighboring states make future occurrence in Oregon seem imminent (Table I).

Recommended action: Infestations are subject to eradication or intensive control when and where found.

• B Listed Weed:

A weed of economic importance which is regionally abundant, but which may have limited distribution in some counties (Table II).

Recommended action: Limited to intensive control at the state, county or regional level as determined on a site specific, case-by-case basis. Where implementation of a fully integrated statewide management plan is not feasible, biological control (when available) shall be the primary control method.

• T Designated Weed (T):

A designated group of weed species that are selected and will be the focus for prevention and control by the Noxious Weed Control Program. Action against these weeds will receive priority. T designated noxious weeds are determined by the Oregon State Weed Board and directs ODA to develop and implement a statewide management plan. T designated noxious weeds are species selected from either the A or B list.

Common Name	Scientific Name
African rue (T)	Peganum harmala
Cape-ivy (T)	Delairea odorata
Camelthorn	Alhagi pseudalhagi
Coltsfoot	Tussilago farfara
Cordgrass	
Common (T)	Spartina anglica
Dense-flowered (T)	Spartina densiflora
Saltmeadow (T)	Spartina patens
Smooth (T)	Spartina alterniflora
Common frogbit	Hydrocharis morsus-ranae
European water chestnut	Trapa natans
Flowering rush (T)	Butomus umbellatus
Garden yellow loosestrife (T)	Lysimachia vulgaris
Giant hogweed (T)	Heracleum mantegazzianum
Goatgrass	
Barbed (T)	Aegilops triuncialis
Ovate	Aegilops ovata
Goatsrue (T)	Galega officinalis
Hawkweed	
King-devil	Pilosella piloselloides (Hieracium)
Mouse-ear (T)	Pilosella pilosella (Hieracium)
Orange (T)	Pilosella aurantiacum (Hieracium)
Yellow (T)	Pilosella floribundum (Hieracium)
Hoary alyssum (T)	Berteroa incana
Hydrilla	Hydrilla verticillata
Japanese dodder	Cuscuta japonica
Kudzu (T)	Pueraria lobata
Matgrass (T)	Nardus stricta
Oblong spurge (T)	Euphorbia oblongata
Paterson's curse (T)	Echium plantagineum
Purple nutsedge	Cyperus rotundus
Ravennagrass (T)	Saccharum ravennae
Silverleaf nightshade	Solanum elaeagnifolium
West Indian spongeplant	Limnobium laevigatum
· · · · · · · · · · · · · · · · · · ·	(T) T Designated Weed (See page 4)

Table I: A Listed Weeds

(Continued) Table I: A Listed Weeds

Common Name	Scientific Name
Squarrose knapweed (T)	Centaurea virgata
Starthistle	
lberian (T)	Centaurea iberica
Purple (T)	Centaurea calcitrapa
Syrian bean-caper	Zygophyllum fabago
Thistle	
Plumeless (T)	Carduus acanthoides
Smooth distaff	Carthamus baeticus
Taurian (T)	Onopordum tauricum
Welted (Curly plumeless) (T)	Carduus crispus
Woolly distaff (T)	Carthamus lanatus
Water soldiers	Stratiotes aloides
White bryonia	Bryonia alba
Yellow floating heart (T)	Nymphoides peltata
Yellowtuft (T)	Alyssum murale, A. corsicum
	(T) T Designated Weed (See page 4)

Common Name	Scientific Name
Armenian (Himalayan) blackberry	Rubus armeniacus (R. procerus, R. discolor)
Biddy-biddy	Acaena novae-zelandiae
Broom	
French*	Genista monspessulana
Portuguese (T)	Cytisus striatus
Scotch*	Cytisus scoparius
Spanish	Spartium junceum
Buffalobur	Solanum rostratum
Butterfly bush	Buddleja davidii (B. variabilis)
Common bugloss (T)	Anchusa officinalis
Common crupina	Crupina vulgaris
Common reed	Phragmities australis ssp. australis
Creeping yellow cress	Rorippa sylvestris
Cutleaf teasel	Dipsacus laciniatus
Dodder	Cuscuta spp.
Dyer's woad	Isatis tinctoria
lvy	
Atlantic	Hedera hibernica
English	Hedera helix
Eurasian watermilfoil	Myriophyllum spicatum
False brome	Brachypodium sylvaticum
Field bindweed* (T)	Convolvulus arvensis
Garlic mustard (T)	Alliaria petiolata
Geranium	
Herb Robert	Geranium robertianum
Shiny leaf geranium	Geranium lucidum
Gorse* (T)	Ulex europaeus
Halogeton	Halogeton glomeratus
Houndstongue	Cynoglossum officinale
Indigo bush	Amorpha fruticosa
Johnsongrass	Sorghum halepense
Jointed goatgrass	Aegilops cylindrica
Jubata grass	Cortaderia jubata
Targeted for biocontrol	(T) T Designated Weed (See page 4)

Table II: B Listed Weeds
Common Name	Scientific Name
Knapweed	
Diffuse*	Centaurea diffusa
Meadow*	Centaurea pratensis
Russian*	Acroptilon repens
Spotted* (T)	Centaurea stoebe (C. maculosa)
Knotweed	
Giant	Fallopia sachalinensis (Polygonum)
Himalayan	Polygonum polystachyum
Japanese	Fallopia japonica (Polygonum)
Kochia	Kochia scoparia
Lesser celandine	Ranunculus ficaria
Meadow hawkweed (T)	Pilosella caespitosum (Hieracium)
Mediterranean sage	Salvia aethiopis
Medusahead rye	Taeniatherum caput-medusae
Old man's beard	Clematis vitalba
Parrot feather	Myriophyllum aquaticum
Perennial peavine	Lathyrus latifolius
Perennial pepperweed (T)	Lepidium latifolium
Pheasant's eye	Adonis aestivalis
Poison hemlock	Conium maculatum
Policeman's helmet	Impatiens glandulifera
Puncturevine*	Tribulus terrestris
Purple loosestrife*	Lythrum salicaria
Ragweed	Ambrosia artemisiifolia
Ribbongrass (T)	Phalaris arundinacea var. Picta
Rush skeletonweed* (T)	Chondrilla juncea
Saltcedar* (T)	Tamarix ramosissima
Small broomrape	Orabanche minor
South American waterweed	Egeria densa (Elodea)
Spanish heath	Erica lusitanica
Spikeweed	Hemizonia pungens
Spiny cocklebur	Xanthium spinosum
Spurge laurel	Daphne laureola
 Targeted for biocontrol 	(T) T Designated Weed (See page 4)

Common Name	Scientific Name
Spurge	
Leafy * (T)	Euphorbia esula
Myrtle	Euphorbia myrsinites
St. Johnswort*	Hypericum perforatum
Sulfur cinquefoil	Potentilla recta
Swainsonpea	Sphaerophysa salsula
Tansy ragwort* (T)	Senecio jacobaea (Jacobaea vulgaris)
Thistle	
Bull*	Cirsium vulgare
Canada*	Cirsium arvense
Italian	Carduus pycnocephalus
Milk*	Silybum marianum
Musk*	Carduus nutans
Scotch	Onopordum acanthium
Slender-flowered*	Carduus tenuiflorus
Toadflax	
Dalmatian* (T)	Linaria dalmatica
Yellow*	Linaria vulgaris
Tree of heaven	Ailanthus altissima
Velvetleaf	Abutilon theophrasti
Primrose Willow	
Large-flower (T)	Ludwigia grandiflora
Floating (T)	Ludwigia hexapetala
Water primrose (T)	Ludwigia peploides
Whitetop	
Hairy	Lepidium pubescens
Lens-podded	Lepidium chalepensis
Whitetop (hoary cress)	Lepidium draba
Yellow archangel	Lamiastrum galeobdolon
Yellow flag iris	Iris pseudacorus
Yellow nutsedge	Cyperus esculentus
Yellow starthistle*	Centaurea solstitialis
Targeted for biocontrol	(T) T Designated Weed (See page 4





Created 3/2017

ESTERSON Sarah * ODOE

From:	Hicks, Paul/PDX <paul.hicks@jacobs.com></paul.hicks@jacobs.com>
Sent:	Tuesday, July 10, 2018 9:11 AM
То:	Hutchinson, Matthew
Cc:	Fossum, Linnea
Subject:	FW: [EXTERNAL] RE: Montague Wind Project - Weed Management Plan

Matt,

Please see below for your records, confirmation that Don Farrar/Gilliam County Weed Control has approved the Montague Weed Management Plan with no further questions or comments.

-Paul

Paul Hicks | Jacobs | Planning and Permitting | Global Environmental Solutions | 503.872.4421 | 916.764.8382 mobile | paul.hicks@ch2m.com | www.jacobs.com

From: O'Neill, Peggy/PDX
Sent: Monday, July 09, 2018 7:01 PM
To: Hicks, Paul/PDX <Paul.Hicks@ch2m.com>
Cc: Eng, Linnea/SEA <Linnea.Eng@CH2M.com>
Subject: Fwd: [EXTERNAL] RE: Montague Wind Project - Weed Management Plan

Paul,

See below for approval of Montague weed management plan. Please forward to Matt.

Peggy

Get Outlook for iOS

From: Don Farrar <don.farrar@co.gilliam.or.us>
Sent: Monday, July 9, 2018 1:00 PM
To: O'Neill, Peggy/PDX
Subject: [EXTERNAL] RE: Montague Wind Project - Weed Management Plan

The Montague Weed Management Plan Looks good

Thanks Don Farrar Gilliam county weed control

If I can help in anyway let me know

From: O'Neill, Peggy/PDX [mailto:Peggy.ONeill@jacobs.com]

Sent: Thursday, June 21, 2018 10:22 AM

To: Don Farrar <<u>don.farrar@co.gilliam.or.us</u>>

Subject: FW: Montague Wind Project - Weed Management Plan

Don,

Re-sending the Montague Weed Control Plan (attached). Please contact me with any questions.

Peggy

Peggy O'Neill, PWS

Senior Project Technologist Wetlands, Botanical Studies, & Environmental Permitting

JACOBS

2020 SW 4th Ave, Suite 300 Portland, OR 97201-4953 Direct 503.872.4652 Mobile 503.708.7722 Fax 503.736.2000 www.ch2mhill.com



From: O'Neill, Peggy/PDX [mailto:Peggy.ONeill@CH2M.com] Sent: Monday, February 12, 2018 2:15 PM To: don.farrar@co.gilliam.or.us

Cc: Hutchinson, Matthew <<u>matthew.hutchinson@avangrid.com</u>>; Eng, Linnea/SEA <<u>Linnea.Eng@CH2M.com</u>> Subject: RE: Montague Wind Project - Weed Management Plan

Hello, Don,

Attached is the Weed Management Plan for the Montague Wind Project, revised per your recommendations. We request your approval of this plan as required by the project Site Certificate requires approval of this plan. Please feel free to contact me with any questions or comments.

Thanks,

Peggy

Peggy O'Neill, PWS

Senior Project Technologist Wetlands, Botanical Studies, & Environmental Permitting

ch2m is now JACOBS

2020 SW 4th Ave, Suite 300 Portland, OR 97201-4953 Direct 503.872.4652 Mobile 503.708.7722 Fax 503.736.2000 www.ch2mhill.com



From: O'Neill, Peggy/PDX

Sent: Tuesday, November 28, 2017 3:37 PM

To: 'don.farrar@co.gilliam.or.us' <<u>don.farrar@co.gilliam.or.us</u>>

Cc: 'Hutchinson, Matthew' <<u>matthew.hutchinson@avangrid.com</u>>; Eng, Linnea/SEA <<u>Linnea.Eng@CH2M.com</u>>

Subject: Montague Wind Project - Weed Management Plan

Hello, Don

Draft Montague Solar Facility Weed Control Plan

Weed Control Plan Montague Wind Power<u>Solar</u> Facility <u>Phase 1</u>

Prepared for Avangrid Renewables, LLC d/b/a Montague Wind Power FacilitySolar, LLC Arlington, Oregon

February 2018XX 2020



CH2M HILL Engineers, Inc. 2020 SW 4th Avenue, Suite 300 Portland, Oregon 97201

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Appendix

Noxious Weed Policy and Classification System 2017

Table

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2	Recommended Weed Treatments for Target Weed Species 4

Acronyms and Abbreviations

CH2M/CH2M HILL CH2M HILL Engineers, Inc.

Facility Montague Wind Power Facility

Montague Montague Wind Power FacilitySolar, LLC

1.0 Introduction

Montague Wind Power FacilitySolar, LLC (Montague) holds a Site Certificate from the Oregon Energy Facility Siting Council for the Montague Wind PowerSolar Facility (Facility) in Gilliam County, Oregon. Condition 43 of the site certificate requires the following:

"During construction and operation of the facility, the certificate holder shall implement a weed control plan approved by the Gilliam County Weed Control Officer or other appropriate County officials to control the introduction and spread of noxious weeds."

This plan was prepared to comply with Condition 43 and describes the weed control measures that will be implemented during construction and operation of the Facility.

1.1 Background Information

The Gilliam County Weed Department works to keep noxious weed at a minimum on roadways and throughout the county, assists area landowners with land maintenance needs, and follows the Oregon Department of Agriculture (ODA) noxious weed policy and classification system as part of ODA's Noxious Weed Control Program (ODA, 2017a; see the appendix to this plan). Noxious weeds are identified on the State of Oregon noxious weed list and mapped by ODA as occurring in Gilliam County. "A" listed weeds are economically important, nonnative species with limited distribution in the county. "B" listed weeds are economically important, nonnative species that are regionally abundant. At the County level, eradication is required for "A" listed weeds at an intensive level, with containment the goal for "B" listed weeds. "T" listed weeds are a designated group of weed species that are selected and will be the focus for prevention and control by the Noxious Weed Control Program. Action against these weeds will receive priority (see the appendix to this plan).

For the purposes of this weed control plan, the term "weed" refers to any species on the Gilliam County weed list regardless of its "A" or "B" status. The Facility area includes cultivated or otherwise developed agricultural land (cropland) as well as areas of grassland, shrub-steppe habitat, and other habitat subtypes (wildlife habitat areas). Noxious weeds are present within the site boundary, and construction activities could spread these weeds. This plan outlines the measures Montague will implement to control weeds within areas disturbed by Facility construction and operation. The Facility will temporarily disturb approximately 47 acresof wildlife habitat and approximately 611 acres of cropland during road, transmission line, and windturbine construction. Temporarily disturbed areas will be revegetated as described in the site revegetation plan (Montague, 2017).

1.2 Weed Control Goals

Weed species can adversely affect the structure and composition, and therefore the inherent values of the revegetation and habitat mitigation areas. Overarching goals of post-construction operations are prevention, identification, and control of weeds. Guidance and best management practices to accomplish these goals are provided in Section 3.0.

2.0 Weed Species of Concern

Montague completed field surveys during spring and summer 2009 through 2010, and in spring 2017 to map habitat types and other resources. Although these surveys were not targeted at weed species, a number of species on the ODA weed list (ODA, 2017b) were observed (see Table 1). These species were noted to occur in low densities throughout the site boundary and were not necessarily located within or

adjacent to the disturbance areas. Where the weed species occurred, their cover was between 1 and 3 percent.

The results of these preconstruction surveys were reviewed along with the weed maps for Gilliam County (ODA, 2017a) to identify the weed species of greatest concern either occurring or with a high potential for occurring in the vicinity of the Facility site boundary. Additional monitoring will be necessary to ensure that each weed species on the Gilliam County list is identified and treated appropriately.

Common Name	Scientific Name	Mapped in Facility Vicinity ^a	Observed 2009-2010 ^b	Observed 2017 ^c
A List Weeds				
Musk thistle	Carduus nutans	Х		
Rush skeletonweed	Chondrilla juncea	Х	Х	
Spotted knapweed	Centaurea stoebe	Х		
Yellow starthistle	Centaurea solstitialis	Х		
B List Weeds				
Dicots				
Bull thistle	Cirsium vulgare	Х		
Canada thistle	Cirsium arvense	Х		
Dalmation toadflax	Linaria dalmatica	Х		
Diffuse knapweed	Centaurea diffusa	х		х
Field bindweed	Convolvulus arvensis		Х	х
Knapweed	Centaurea sp.	х		х
Kochia	Kochia (Bassia) sp.	х		
Poison hemlock	Conium maculatum	х		
Puncturevine	Tribulus terrestris	х		
Russian knapweed	Acroptilon repens	х		
Scotch thistle	Onopordum acanthium	х		
Spikeweed	Hemozonia pungens	х		
Whitetop	Cardaria draba	х		х
Monocots				
Jointed goatgrass	Aegilops cylindrica	Х	Х	Х
Medusahead rye	Taeniatherum caput-medusae	Х	Х	х
T List Weeds				
Dalmation Toadflax	Linaria dalmatica	Х		
Kochia	Kochia (Bassia) sp.	Х		
Rush skeletonweed	Chondrilla juncea	Х	Х	
Puncturevine	Tribulus terrestris	Х		
Yellow starthistle	Centaurea solstitialis	Х		

Table 1. Weed Species of Greatest Concern in Vicinity of Facility Site Boundary

^a Source: ODA, 2017b.

Table 1. Weed Species of Greatest Concern in Vicinity of Facility Site Boundary

Common Name	Scientific Name	Mapped in Facility Vicinity ^a	Observed 2009-2010 ^b	Observed 2017 ^c
^b Sources:				

CH2M HILL, 2010a. Field surveys conducted June 2010.

CH2M HILL, 2010b. Field surveys conducted October 2009 and February 2010.

^c Sources:

CH2M, 2017a. Field surveys conducted May - June 2017.

CH2M, 2017b. Field surveys conducted April - May 2017.

HDR Engineering, Inc., 2017. Field surveys conducted April 2017.

3.0 Weed Control Plan

3.1 Overview

Long-term weed control will be accomplished through the seeding of perennial grasses known to compete well with noxious weeds, such as thickspike wheatgrass (*Elymus lanceolatus*) and Sherman big bluegrass (*Poa secunda*), or by maintaining the existing cover in the buffers. Short-term weed control will be through herbicide use. However, it will be important to ensure that the short-term herbicide use does not affect the establishment of the perennial grass cover intended to provide long-term control. Early detection and management of small populations before they can expand into larger populations is extremely important for successful control.

Weed control will continue until the disturbed areas meet the success criteria described above with respect to the designated reference sites. Supplemental seeding may be needed to achieve this goal. Subsequent fertilizer application will be limited in areas treated for weeds, and the timing of the seeding will need to be coordinated with any herbicide applications.

The knapweeds, rush skeletonweed, field bindweed, whitetop, yellow starthistle, and medusahead rye are the species of primary concern ("target" species) as they were observed onsite during the preconstruction surveys. Treatment specifics will differ depending on the following variables:

- Disturbed area or buffer
- Proximity to biologically sensitive areas

The target species will be the same for all onsite areas, but the treatment implementation will vary slightly according to these parameters.

The herbicides used and the timing of application will differ depending on whether the species are (1) perennial, broad-leaved, or dicot weeds (knapweeds and thistles, field bindweed, whitetop), or (2) annual grasses or monocots (goatgrass and medusahead). Appropriate herbicides differ substantially between dicots and monocots.

3.2 Best Management Practices

Montague will implement best management practices during Facility construction and operation to help prevent the invasion and spread of noxious weeds onsite. These may include the following:

 Information regarding target weed species will be provided at the operations and maintenance building.

- Weed prevention and control measures, including Facility inspection and documentation, will be included in operations plans.
- Temporary ground-disturbing operations in weed-infested areas will be inspected and documented in accordance with Facility monitoring plan.
- Vehicles and equipment will be cleaned prior to entry into revegetation areas to help minimize introduction of noxious weed seeds to the site.
- To prevent conditions favoring weed establishment, temporarily disturbed areas will be revegetated soon as possible.
- The site will be revegetated with appropriate, locally collected native seed or native plants; when these are not available, noninvasive and nonpersistent, nonnative species may be used.
- Seed and straw mulch to be used for site rehabilitation will be inspected and certified free of weed seed and propagules.

3.3 Treatment Specifics

3.3.1 Disturbed Areas

Before the initial weed treatment begins, the herbicide applicator personnel will meet with a botanist for a ½-day session to review the target species and their identification, and to identify native species to be avoided, such as the native thistle (*Cirsium undulatum*) onsite. Following the initial meeting between the botanist and herbicide applicators, the applicators will be responsible for identifying and treating the target species.

Control will be accomplished through use of herbicides targeted to the individual weed species. The herbicide is to be applied by a licensed applicator, using appropriate best management practices. Herbicide application will occur twice in year 1, in the spring (knapweeds, thistles, bindweed) and fall (other species), and once a year thereafter during the spring (mid to late May), if necessary, until the success criteria are met. Herbicide will be applied with a spreader sticker surfactant (e.g., Dynamic Green Concepts, Phase). Rush skeletonweed will be treated throughout the growing season as it occurs. Information on identification of this and other target weed species will be included in the environmental training materials to be provided to Montague operations staff. If rush skeletonweed is observed during routine operations activities at any time during the growing season, the licensed applicator will be contacted to treat this species as soon after it is observed as practicable. Table 2 provides a summary of recommended treatment by target species.

Weed Category	Common name	Scientific Name	Recommended Treatment
Knapweeds	·		
	Diffuse knapweed	Centaurea diffusa	Spot application of post-emergent, species-
	Spotted knapweed	Centaurea maculosa	specific herbicide.
	Russian knapweed	Acroptilon repens	
	Yellow starthistle	Centaurea solstitialis	
Thistles			
	Bull thistle	Cirsium vulgare	Snot application of post-emergent species-
	Creeping thistle	Cirsium arvense	specific herbicide.
	Musk thistle	Carduus nutans	-

Table 2. Recommended Weed Treatments for Target Weed Species

Weed Category	Common name	Scientific Name	Recommended Treatment
	Scotch thistle	Onopordum acanthium	
Other Dicot	(Broad-leaved) Weeds	·	
	Dalmatian toadflax	Linaria dalmatica	Spot application of post-emergent, species-
	Field bindweed	Convolvulus arvensis	specific herbicide.
	Kochia	Kochia sp.	
	Poison hemlock	Conium maculatum	
	Puncturevine	Tribulus terrestris	
	Spikeweed	Hemozonia pungens	
	Rush skeletonweed	Chondrilla juncea	
	Whitetop	Lepidium draba	
Grasses			
	Jointed goatgrass	Aegilops cylindrica	Spot application of post-emergent, species-
	Medusahead rye	Taeniatherum caput- medusae	specific herbicide.

Table 2. Recommended Weed Treatments for Target Weed Species

3.3.2 Special Considerations

During treatment activities, Montague will consider the following sensitive areas:

- <u>Washington ground squirrel sites</u>. The Washington ground squirrel is sensitive to disturbance during the breeding season (generally January through March, sometimes lasting through April). The diet of the Washington ground squirrel consists mostly of herbaceous vegetation, as well as flowers, roots, bulbs, seeds, and insects. Therefore, no herbicides will be sprayed within 400 meters (1,200 feet) of identified Washington ground squirrel sites during the breeding season.
- <u>Ephemeral streams/draws</u>. No herbicide will be sprayed where the drift can enter standing water or saturated soil. This precaution will likely only be necessary during the spring. However, it will be the herbicide applicators' responsibility to ensure that no herbicide or drift enters standing water.

4.0 Monitoring

Monitoring will be conducted on an annual basis by a qualified botanist for the first 5 years following initial seeding to assess weed growth and to recommend weed control measures. The weed monitoring will consist of two general components:

- Site survey to identify weed species that have established within the disturbed areas
- Inspections of treated areas to assess the success of the weed treatments

The site survey will be a pedestrian survey of disturbed areas in mid to late May. The survey will be scheduled to be initiated slightly before the herbicide application to identify any weed species. The focus will be on weed species observed prior to construction on the site (knapweed, starthistle, field bindweed, whitetop, jointed goatgrass, medusahead rye), as well as any other species on the Gilliam County weed list that might require different control methods.

The results of the site survey will be summarized in a short memorandum in which (1) any new weed species observed and treatment protocols are identified, (2) the location and weed species within the buffers are described, and (3) reference plot cover values are listed.

Subsequent monitoring results will be summarized in short memorandums in which the treatment success is described, any recommendations to improve treatment success (if necessary) are made, and any new weed species or emergence are noted.

5.0 References

CH2M HILL. 2010a. Rare Plant Survey Report, Montague Wind Power Facility, Gilliam County, Oregon.

CH2M HILL. 2010b. Montague Wind Power Facility Wetlands and Other Waters Delineation Report, Gilliam County, Oregon.

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Montague Wind Power Facility, LLC (Montague). 2017. *Montague Wind Power Facility: Revegetation Plan.* December.

Oregon Department of Agriculture (ODA). 2017a. *Noxious Weed Policy and Classification System*. Noxious Weed Control Program, Salem, Oregon.

http://www.oregon.gov/ODA/shared/Documents/Publications/Weeds/NoxiousWeedPolicyClassification .pdf.

Oregon Department of Agriculture (ODA). 2017b. *Weed Mapper*. <u>http://www.oregon.gov/ODA/programs/Weeds/Pages/WeedMapper.aspx.</u>

Appendix Noxious Weed Policy and Classification System 2017 Oregon Department of Agriculture

Noxious Weed Policy and Classification System 2017



Noxious Weed Control Program

Address: 635 Capitol Street NE Salem, Oregon 97301 Phone: (503) 986-4621 Fax: (503) 986-4786 www.oregon.gov/ODA/programs/Weeds/Pages/AboutWeeds.aspx

Mission Statement

To protect Oregon's natural resources and agricultural economy from the invasion and proliferation of invasive noxious weeds.

Program Overview

The Oregon Department of Agriculture (ODA) Noxious Weed Control Program provides statewide leadership for coordination and management of state listed noxious weeds. The state program focuses on noxious weed control efforts by implementing early detection and rapid response projects for new invasive noxious weeds, implementing biological control, implementing statewide inventory and survey, assisting the public and cooperators through technology transfer and noxious weed education, maintaining noxious weed data and maps for priority listed noxious weeds, and assisting land managers and cooperators with integrated weed management projects. The Noxious Weed Control Program also supports the Oregon State Weed Board (OSWB) with administration of the OSWB Grant Program, developing statewide management objectives, developing Weed Risk Assessments, and maintaining the State Noxious Weed List.

> Tim Butler Program Manager <u>tbutler@oda.state.or.us</u> 503-986-4621

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Noxious Weed Control Policy and Classification System

<u>Definition</u>

"Noxious Weed" means a terrestrial, aquatic or marine plant designated by the State Weed Board under ORS 569.615 as among those representing the greatest public menace and as a top priority for action by weed control programs.

Noxious weeds have become so thoroughly established and are spreading so rapidly on private, state, county, and federally owned lands, that they have been declared by ORS 569-350 to be a menace to public welfare. Steps leading to eradication, where possible, and intensive control are necessary. It is further recognized that the responsibility for eradication and intensive control rests not only on the private landowner and operator, but also on the county, state, and federal government.

Weed Control Policy

Therefore, it shall be the policy of ODA to:

- 1. Assess non-native plants through risk assessment processes and make recommendations to the State Weed Board for potential listing.
- 2. Rate and classify weeds at the state level.
- 3. Prevent the establishment and spread of listed noxious weeds.
- 4. Encourage and implement the control or containment of infestations of listed noxious weed species and, if possible, eradicate them.
- 5. Develop and manage a biological weed control program.
- 6. Increase awareness of potential economic losses and other undesirable effects of existing and newly invading noxious weeds, and to act as a resource center for the dissemination of information.
- 7. Encourage and assist in the organization and operation of noxious weed control programs with government agencies and other weed management entities.
- 8. Develop partnerships with county weed control districts, universities, and other cooperators in the development of control methods.
- 9. Conduct statewide noxious weed surveys and weed control efficacy studies.

Weed Classification System

The purpose of this Classification System is to:

- 1. Act as the ODA's official guideline for prioritizing and implementing noxious weed control projects.
- 2. Assist the ODA in the distribution of available funds through Oregon State Weed Board to assist county weed programs, cooperative weed management groups, private landowners, and other weed management entities.
- 3. Serve as a model for private and public sectors in developing noxious weed classification systems that aid in setting effective noxious weed control strategies.

Criteria for Determining Economic and Environmental Significance of Noxious Weeds is Based Upon:

Detrimental Effects

- 1. A plant species that causes or has the potential to cause severe negative impacts to Oregon's agricultural economy and natural resources.
- 2. A plant species that has the potential to or does endanger native flora and fauna by its encroachment into forest, range, and conservation areas.
- 3. A plant species that has the potential or does hamper the full utilization and enjoyment of recreational areas.
- 4. A plant species that is poisonous, injurious, or otherwise harmful to humans and/or animals.

Plant Reproduction

- 1. A plant that reproduces by seed capable of being dispersed over wide areas or that is long-lived, or produced in large numbers.
- 2. A plant species that reproduces and spreads by tubers, creeping roots, stolons, rhizomes, or other natural vegetative means.

<u>Distribution</u>

- 1. A weed of known economic importance which occurs in Oregon in small enough infestations to make eradication/containment possible; or not known to occur, but its presence in neighboring states makes future occurrence seem imminent.
- 2. A weed of economic or ecological importance and of limited distribution in Oregon.
- 3. A weed that has not infested the full extent of its potential habitat in Oregon.

Difficulty of Control

A plant species that is not easily controlled with current management practices such as chemical, cultural, biological, and physical methods.

Noxious Weed Control Classification Definitions

Noxious weeds, for the purpose of this system, shall be listed as either A or B, and may also be designated as T, which are priority targets for control, as directed by the Oregon State Weed Board.

• A Listed Weed:

A weed of known economic importance which occurs in the state in small enough infestations to make eradication or containment possible; or is not known to occur, but its presence in neighboring states make future occurrence in Oregon seem imminent (Table I).

Recommended action: Infestations are subject to eradication or intensive control when and where found.

• B Listed Weed:

A weed of economic importance which is regionally abundant, but which may have limited distribution in some counties (Table II).

Recommended action: Limited to intensive control at the state, county or regional level as determined on a site specific, case-by-case basis. Where implementation of a fully integrated statewide management plan is not feasible, biological control (when available) shall be the primary control method.

• T Designated Weed (T):

A designated group of weed species that are selected and will be the focus for prevention and control by the Noxious Weed Control Program. Action against these weeds will receive priority. T designated noxious weeds are determined by the Oregon State Weed Board and directs ODA to develop and implement a statewide management plan. T designated noxious weeds are species selected from either the A or B list.

Common Name	Scientific Name
African rue (T)	Peganum harmala
Cape-ivy (T)	Delairea odorata
Camelthorn	Alhagi pseudalhagi
Coltsfoot	Tussilago farfara
Cordgrass	
Common (T)	Spartina anglica
Dense-flowered (T)	Spartina densiflora
Saltmeadow (T)	Spartina patens
Smooth (T)	Spartina alterniflora
Common frogbit	Hydrocharis morsus-ranae
European water chestnut	Trapa natans
Flowering rush (T)	Butomus umbellatus
Garden yellow loosestrife (T)	Lysimachia vulgaris
Giant hogweed (T)	Heracleum mantegazzianum
Goatgrass	
Barbed (T)	Aegilops triuncialis
Ovate	Aegilops ovata
Goatsrue (T)	Galega officinalis
Hawkweed	
King-devil	Pilosella piloselloides (Hieracium)
Mouse-ear (T)	Pilosella pilosella (Hieracium)
Orange (T)	Pilosella aurantiacum (Hieracium)
Yellow (T)	Pilosella floribundum (Hieracium)
Hoary alyssum (T)	Berteroa incana
Hydrilla	Hydrilla verticillata
Japanese dodder	Cuscuta japonica
Kudzu (T)	Pueraria lobata
Matgrass (T)	Nardus stricta
Oblong spurge (T)	Euphorbia oblongata
Paterson's curse (T)	Echium plantagineum
Purple nutsedge	Cyperus rotundus
Ravennagrass (T)	Saccharum ravennae
Silverleaf nightshade	Solanum elaeagnifolium
West Indian spongeplant	Limnobium laevigatum
· · · · · · · · · · · · · · · · · · ·	(T) T Designated Weed (See page 4)

Table I: A Listed Weeds

(Continued) Table I: A Listed Weeds

Common Name	Scientific Name
Squarrose knapweed (T)	Centaurea virgata
Starthistle	
lberian (T)	Centaurea iberica
Purple (T)	Centaurea calcitrapa
Syrian bean-caper	Zygophyllum fabago
Thistle	
Plumeless (T)	Carduus acanthoides
Smooth distaff	Carthamus baeticus
Taurian (T)	Onopordum tauricum
Welted (Curly plumeless) (T)	Carduus crispus
Woolly distaff (T)	Carthamus lanatus
Water soldiers	Stratiotes aloides
White bryonia	Bryonia alba
Yellow floating heart (T)	Nymphoides peltata
Yellowtuft (T)	Alyssum murale, A. corsicum
	(T) T Designated Weed (See page 4)

Common Name	Scientific Name
Armenian (Himalayan) blackberry	Rubus armeniacus (R. procerus, R. discolor)
Biddy-biddy	Acaena novae-zelandiae
Broom	
French*	Genista monspessulana
Portuguese (T)	Cytisus striatus
Scotch*	Cytisus scoparius
Spanish	Spartium junceum
Buffalobur	Solanum rostratum
Butterfly bush	Buddleja davidii (B. variabilis)
Common bugloss (T)	Anchusa officinalis
Common crupina	Crupina vulgaris
Common reed	Phragmities australis ssp. australis
Creeping yellow cress	Rorippa sylvestris
Cutleaf teasel	Dipsacus laciniatus
Dodder	Cuscuta spp.
Dyer's woad	Isatis tinctoria
lvy	
Atlantic	Hedera hibernica
English	Hedera helix
Eurasian watermilfoil	Myriophyllum spicatum
False brome	Brachypodium sylvaticum
Field bindweed* (T)	Convolvulus arvensis
Garlic mustard (T)	Alliaria petiolata
Geranium	
Herb Robert	Geranium robertianum
Shiny leaf geranium	Geranium lucidum
Gorse* (T)	Ulex europaeus
Halogeton	Halogeton glomeratus
Houndstongue	Cynoglossum officinale
Indigo bush	Amorpha fruticosa
Johnsongrass	Sorghum halepense
Jointed goatgrass	Aegilops cylindrica
Jubata grass	Cortaderia jubata
Targeted for biocontrol	(T) T Designated Weed (See page 4)

Table II: B Listed Weeds

Common Name	Scientific Name
Knapweed	
Diffuse*	Centaurea diffusa
Meadow*	Centaurea pratensis
Russian*	Acroptilon repens
Spotted* (T)	Centaurea stoebe (C. maculosa)
Knotweed	
Giant	Fallopia sachalinensis (Polygonum)
Himalayan	Polygonum polystachyum
Japanese	Fallopia japonica (Polygonum)
Kochia	Kochia scoparia
Lesser celandine	Ranunculus ficaria
Meadow hawkweed (T)	Pilosella caespitosum (Hieracium)
Mediterranean sage	Salvia aethiopis
Medusahead rye	Taeniatherum caput-medusae
Old man's beard	Clematis vitalba
Parrot feather	Myriophyllum aquaticum
Perennial peavine	Lathyrus latifolius
Perennial pepperweed (T)	Lepidium latifolium
Pheasant's eye	Adonis aestivalis
Poison hemlock	Conium maculatum
Policeman's helmet	Impatiens glandulifera
Puncturevine*	Tribulus terrestris
Purple loosestrife*	Lythrum salicaria
Ragweed	Ambrosia artemisiifolia
Ribbongrass (T)	Phalaris arundinacea var. Picta
Rush skeletonweed* (T)	Chondrilla juncea
Saltcedar* (T)	Tamarix ramosissima
Small broomrape	Orabanche minor
South American waterweed	Egeria densa (Elodea)
Spanish heath	Erica lusitanica
Spikeweed	Hemizonia pungens
Spiny cocklebur	Xanthium spinosum
Spurge laurel	Daphne laureola
 Targeted for biocontrol 	(T) T Designated Weed (See page 4)

Common Name	Scientific Name
Spurge	
Leafy* (T)	Euphorbia esula
Myrtle	Euphorbia myrsinites
St. Johnswort*	Hypericum perforatum
Sulfur cinquefoil	Potentilla recta
Swainsonpea	Sphaerophysa salsula
Tansy ragwort* (T)	Senecio jacobaea (Jacobaea vulgaris)
Thistle	
Bull*	Cirsium vulgare
Canada*	Cirsium arvense
Italian	Carduus pycnocephalus
Milk*	Silybum marianum
Musk*	Carduus nutans
Scotch	Onopordum acanthium
Slender-flowered*	Carduus tenuiflorus
Toadflax	
Dalmatian* (T)	Linaria dalmatica
Yellow*	Linaria vulgaris
Tree of heaven	Ailanthus altissima
Velvetleaf	Abutilon theophrasti
Primrose Willow	
Large-flower (T)	Ludwigia grandiflora
Floating (T)	Ludwigia hexapetala
Water primrose (T)	Ludwigia peploides
Whitetop	
Hairy	Lepidium pubescens
Lens-podded	Lepidium chalepensis
Whitetop (hoary cress)	Lepidium draba
Yellow archangel	Lamiastrum galeobdolon
Yellow flag iris	Iris pseudacorus
Yellow nutsedge	Cyperus esculentus
Yellow starthistle*	Centaurea solstitialis
Targeted for biocontrol	(T) T Designated Weed (See page 4





Created 3/2017

ESTERSON Sarah * ODOE

From:	Hicks, Paul/PDX <paul.hicks@jacobs.com></paul.hicks@jacobs.com>
Sent:	Tuesday, July 10, 2018 9:11 AM
То:	Hutchinson, Matthew
Cc:	Fossum, Linnea
Subject:	FW: [EXTERNAL] RE: Montague Wind Project - Weed Management Plan

Matt,

Please see below for your records, confirmation that Don Farrar/Gilliam County Weed Control has approved the Montague Weed Management Plan with no further questions or comments.

-Paul

Paul Hicks | Jacobs | Planning and Permitting | Global Environmental Solutions | 503.872.4421 | 916.764.8382 mobile | paul.hicks@ch2m.com | www.jacobs.com

From: O'Neill, Peggy/PDX
Sent: Monday, July 09, 2018 7:01 PM
To: Hicks, Paul/PDX <Paul.Hicks@ch2m.com>
Cc: Eng, Linnea/SEA <Linnea.Eng@CH2M.com>
Subject: Fwd: [EXTERNAL] RE: Montague Wind Project - Weed Management Plan

Paul,

See below for approval of Montague weed management plan. Please forward to Matt.

Peggy

Get Outlook for iOS

From: Don Farrar <don.farrar@co.gilliam.or.us>
Sent: Monday, July 9, 2018 1:00 PM
To: O'Neill, Peggy/PDX
Subject: [EXTERNAL] RE: Montague Wind Project - Weed Management Plan

The Montague Weed Management Plan Looks good

Thanks Don Farrar Gilliam county weed control

If I can help in anyway let me know

From: O'Neill, Peggy/PDX [mailto:Peggy.ONeill@jacobs.com]

Sent: Thursday, June 21, 2018 10:22 AM

To: Don Farrar <<u>don.farrar@co.gilliam.or.us</u>>

Subject: FW: Montague Wind Project - Weed Management Plan

Don,

Re-sending the Montague Weed Control Plan (attached). Please contact me with any questions.

Peggy

Peggy O'Neill, PWS

Senior Project Technologist Wetlands, Botanical Studies, & Environmental Permitting

JACOBS

2020 SW 4th Ave, Suite 300 Portland, OR 97201-4953 Direct 503.872.4652 Mobile 503.708.7722 Fax 503.736.2000 www.ch2mhill.com



From: O'Neill, Peggy/PDX [mailto:Peggy.ONeill@CH2M.com] Sent: Monday, February 12, 2018 2:15 PM To: don.farrar@co.gilliam.or.us

Cc: Hutchinson, Matthew <<u>matthew.hutchinson@avangrid.com</u>>; Eng, Linnea/SEA <<u>Linnea.Eng@CH2M.com</u>> Subject: RE: Montague Wind Project - Weed Management Plan

Hello, Don,

Attached is the Weed Management Plan for the Montague Wind Project, revised per your recommendations. We request your approval of this plan as required by the project Site Certificate requires approval of this plan. Please feel free to contact me with any questions or comments.

Thanks,

Peggy

Peggy O'Neill, PWS

Senior Project Technologist Wetlands, Botanical Studies, & Environmental Permitting

ch2m is now JACOBS

2020 SW 4th Ave, Suite 300 Portland, OR 97201-4953 Direct 503.872.4652 Mobile 503.708.7722 Fax 503.736.2000 www.ch2mhill.com



From: O'Neill, Peggy/PDX

Sent: Tuesday, November 28, 2017 3:37 PM

To: 'don.farrar@co.gilliam.or.us' <<u>don.farrar@co.gilliam.or.us</u>>

Cc: 'Hutchinson, Matthew' <<u>matthew.hutchinson@avangrid.com</u>>; Eng, Linnea/SEA <<u>Linnea.Eng@CH2M.com</u>>

Subject: Montague Wind Project - Weed Management Plan

Hello, Don

Draft Oregon Trail Solar Facility Weed Control Plan

Oregon Trail Solar Weed Control Plan

June 2020

1. Introduction

This plan describes the weed control measures that will be implemented at the Oregon Trail Solar Project to prevent the unabated introduction or spread of noxious weeds.

Condition 43 of the Site Certificate requires the following:

"During construction and operation of the facility, the certificate holder shall implement a weed control plan approved by the Gilliam County Weed Control Officer or other appropriate County officials to control the introduction and spread of noxious weeds."

This plan was prepared to comply with Condition 43 and describes the weed control measures that will be implemented during construction and operation of Oregon Trail Solar.

The Gilliam County Weed Department works to keep noxious weed at a minimum on roadways and throughout the county, assists area landowners with land maintenance needs, and follows the Oregon Department of Agriculture (ODA) noxious weed policy and classification system as part of ODA's Noxious Weed Control Program (ODA, 2019; see the appendix to this plan). Noxious weeds are identified on the State of Oregon noxious weed list and mapped by ODA as occurring in Gilliam County. "A" listed weeds are economically important, nonnative species with limited distribution in the county. "B" listed weeds are economically important, nonnative species that are regionally abundant. At the County level, eradication is required for "A" listed weeds at an intensive level, with containment the goal for "B" listed weeds. "T" listed weeds consist of a designated group of weed species that are selected and will be the focus for prevention and control by the Noxious Weed Control Program. Action against these weeds will receive priority (see the appendix to this plan).

For the purposes of this weed control plan, the term "weed" refers to any species on the Gilliam County weed list regardless of its "A" or "B" status. The Oregon Trail Solar site boundary includes cultivated or otherwise developed agricultural land (cropland) as well as areas of grassland, shrub-steppe habitat, and other habitat subtypes (wildlife habitat areas). Noxious weeds are present within the site boundary, and construction activities could spread these weeds. This plan outlines the measures Oregon Trail Solar will implement to control weeds within areas disturbed by construction and operation. Temporarily disturbed areas will be revegetated as described in the site revegetation plan (Montague, 2019).

2. Weed Species of Concern

The Certificate Holder completed field surveys during spring and summer 2009 through 2010, and in spring 2017 and 2018 to map habitat types and other resources in the vicinity of the Oregon Trail Solar site. Although these surveys were not targeted at weed species, a number of species on the ODA weed list (ODA, 2019) were observed (see Table 1). Where the weed species occurred, their cover was between 1 and 3 percent.

The results of these surveys were reviewed along with the weed maps for Gilliam County (ODA, 2020) to identify the weed species of greatest concern either occurring or with a high potential for occurring in the vicinity of the Oregon Trail Solar site boundary.
Common Name Scientific Name		Mapped in Facility Vicinityª	Observed 2009-2010 ^ь	Observed 2017- 2018 ^c
A List Weeds				
Musk thistle	Carduus nutans	Х		
Rush skeletonweed	Chondrilla juncea	х	Х	х
Spotted knapweed	Centaurea stoebe	х		
Yellow starthistle	Centaurea solstitialis	х		
B List Weeds				
Dicots				
Bull thistle	Cirsium vulgare	х		
Canada thistle	Cirsium arvense	х		
Dalmation toadflax	Linaria dalmatica	Х		
Diffuse knapweed	Centaurea diffusa	Х		Х
Field bindweed	Convolvulus arvensis		Х	х
Knapweed	Centaurea sp.	Х		Х
Kochia	Kochia (Bassia) sp.	х		
Poison hemlock	Conium maculatum	х		
Puncturevine	Tribulus terrestris	х		
Russian knapweed	Acroptilon repens	х		
Scotch thistle	Onopordum acanthium	х		
Spikeweed	Hemozonia pungens	х		
Whitetop	Cardaria draba	х		х
Monocots				
Jointed goatgrass	Aegilops cylindrica	х	Х	х
Medusahead rye	Taeniatherum caput-medusae	х	х	х
T List Weeds				
Dalmation Toadflax	Linaria dalmatica	х		
Kochia	Kochia (Bassia) sp.	х		
Rush skeletonweed	Chondrilla juncea	х	х	
Puncturevine	Tribulus terrestris	х		
Yellow starthistle	Centaurea solstitialis	Х		

Table 1. Weed Species of Greatest Concern in Vicinity of Oregon Trail Solar Site Boundary

^aSource: ODA, 2020.

^bSources:

CH2M HILL, 2010a. Field surveys conducted June 2010.

CH2M HILL, 2010b. Field surveys conducted October 2009 and February 2010.

° Sources:

CH2M, 2017a. Field surveys conducted May - June 2017.

CH2M, 2017b. Field surveys conducted April - May 2017.

CH2M, 2018. Field surveys conducted June 2018.

Table 1. Weed Species of Greatest Concern in Vicinity of Oregon Trail Solar Site Boundary

Common Name	Scientific Name	Mapped in Facility Vicinityª	Observed 2009-2010 ^b	Observed 2017- 2018°
	17 Field ourses as adveted April 2017			

HDR Engineering, Inc., 2017. Field surveys conducted April 2017.

3. Weed Control Plan

3.1 Overview

Long-term weed control will be accomplished through the seeding of perennial grasses known to compete well with noxious weeds, such as thickspike wheatgrass (*Elymus lanceolatus*) and Sherman big bluegrass (*Poa secunda*), or by maintaining the existing cover in the buffers. Short-term weed control will be through herbicide use. However, it will be important to ensure that the short-term herbicide use does not affect the establishment of the perennial grass cover intended to provide long-term control. Early detection and management of small populations before they can expand into larger populations is important for successful control. Weed control in agricultural areas will be coordinated with the landowner. The success criteria for weed control on non-agricultural areas is defined by the project's revegetation plan.

The knapweeds, rush skeletonweed, field bindweed, whitetop, yellow starthistle, and medusahead rye are the species of primary concern ("target" species) as they were observed onsite during the preconstruction surveys. Treatment specifics will differ depending on the following variables:

- Disturbed area or buffer
- Proximity to biologically sensitive areas

The target species will be the same for all onsite areas, but the treatment implementation will vary slightly according to these parameters.

The herbicides used and the timing of application will differ depending on whether the species are (1) perennial, broad-leaved, or dicot weeds (knapweeds and thistles, field bindweed, whitetop), or (2) annual grasses or monocots (goatgrass and medusahead). Appropriate herbicides differ substantially between dicots and monocots.

3.2 Best Management Practices

Oregon Trail Solar will implement best management practices during facility construction and operation to help prevent the invasion and spread of noxious weeds onsite. These may include the following:

- Information regarding target weed species will be provided at the operations and maintenance building.
- Weed prevention and control measures, including Facility inspection and documentation, will be included in operations plans.
- Vehicles and equipment will be cleaned prior to entry into revegetation areas to help minimize introduction of noxious weed seeds to the site.
- To prevent conditions favoring weed establishment, temporarily disturbed areas will be revegetated as soon as possible.
- The site will be revegetated with appropriate, locally collected native seed or native plants; when these are not available, noninvasive and nonpersistent, nonnative species may be used.

• Seed and straw mulch to be used for site rehabilitation will be inspected and certified free of weed seed and propagules.

3.3 Treatment Specifics

3.3.1 Disturbed Areas

Control will be accomplished through use of herbicides targeted to the individual weed species identified with the areas disturbed by construction. Herbicide application will occur twice in year 1, in the spring (knapweeds, thistles, bindweed) and fall (other species), and once a year thereafter during the spring (mid to late May), if necessary, until the success criteria are met. Herbicide will be applied with a spreader sticker surfactant (e.g., Dynamic Green Concepts, Phase). Rush skeletonweed will be treated throughout the growing season as it occurs. Information on identification of this and other target weed species will be included in the environmental training materials to be provided to Oregon Trail Solar operations staff. If rush skeletonweed is observed during routine operations activities at any time during the growing season, the licensed applicator will be contacted to treat this species as soon after it is observed as practicable. Table 2 provides a summary of recommended treatment by target species.

Weed Category	Common Name	Scientific Name	Recommended Treatment
Knapweeds			
	Diffuse knapweed	Centaurea diffusa	Spot application of post-emergent, species-specific
	Spotted knapweed	Centaurea maculosa	herbicide.
	Russian knapweed	Acroptilon repens	
	Yellow starthistle	Centaurea solstitialis	
Thistles			
	Bull thistle	Cirsium vulgare	Spot application of post-emergent, species-specific
	Creeping thistle	Cirsium arvense	herbicide.
	Musk thistle	Carduus nutans	
	Scotch thistle	Onopordum acanthium	
Other Dicot (Broad-leaved) Weeds		
	Dalmatian toadflax	Linaria dalmatica	Spot application of post-emergent, species-specific
	Field bindweed	Convolvulus arvensis	herbicide.
	Kochia	<i>Kochia</i> sp.	
	Poison hemlock	Conium maculatum	
	Puncturevine	Tribulus terrestris	
	Spikeweed	Hemozonia pungens	
	Rush skeletonweed	Chondrilla juncea	
	Whitetop	Lepidium draba	
Grasses			
	Jointed goatgrass	Aegilops cylindrica	Spot application of post-emergent, species-specific
	Medusahead rye	Taeniatherum caput- medusae	

Table 2. Recommended Weed Treatments for Target Weed Species

3.3.2 Special Considerations

During treatment activities, Oregon Trail Solar will consider the following sensitive areas:

- <u>Washington ground squirrel sites</u>. The Washington ground squirrel is sensitive to disturbance during the breeding season (generally January through March, sometimes lasting through April). The diet of the Washington ground squirrel consists mostly of herbaceous vegetation, as well as flowers, roots, bulbs, seeds, and insects. Therefore, no herbicides will be sprayed within 400 meters (1,200 feet) of identified Washington ground squirrel sites during the breeding season.
- <u>Ephemeral streams/draws</u>. No herbicide will be sprayed where the drift can enter standing water or saturated soil. This precaution will likely only be necessary during the spring. However, it will be the herbicide applicators' responsibility to ensure that no herbicide or drift enters standing water.

4. References

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HDR Engineering, Inc. 2017. *Wetlands and Water Bodies Delineation, Montague Wind Power Facility.* Prepared for Avangrid Renewables. July 10.

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Oregon Department of Agriculture (ODA). 2019. *Noxious Weed Policy and Classification System*. Noxious Weed Control Program, Salem, Oregon. <u>http://www.oregon.gov/ODA/shared/Documents/Publications/Weeds/NoxiousWeedPolicyClassification.pd</u> f.

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Attachment G Draft Amended Wildlife Monitoring and Mitigation Plans

Draft Amended Montague Wind Facility Wildlife Monitoring and Mitigation Plan Draft Montague Solar Facility Wildlife Monitoring and Mitigation Plan Draft Oregon Trail Solar Facility Wildlife Monitoring and Mitigation Plan Draft Amended Montague Wind Facility Wildlife Monitoring and Mitigation Plan

1	This plan describes wildlife monitoring that the certificate holder shall conduct during
2	operation of Phase 2 of the Montague Wind Power Facility (MWPF). ¹ This plan was approved in
3	September 2010 as part of the Energy Facility Siting Council's (EFSC) Final Order on the
4	Application for Site Certificate for the Montague Wind Power Facility (Final Order on ASC).
5	Final Order on ASC approved construction and operation of a 404 megawatt (MW) wind energy
6	generation facility, to be developed in phases (Phase 1 and Phase 2). The plan was finalized in
7	August 2017, prior to construction of Phase 1. In XX, 2020, the Council approved Final Order on
8	Request for Amendment 5 of the Montague Wind Power Facility site certificate (Final Order on
9	RFA5), authorizing amendment of the Montague Wind Power Facility site certificate to cover
10	only Phase 1 facility components; and, previously approved facility components (Phase 2) to be
11	allocated under original site certificates for facilities named Montague Solar Facility and Oregon
12	Irail Solar Facility.
13	This plan is based on the plan finalized prior to Phase 1 facility construction (August
14	2017), revised accordingly to describe and apply to the facility components allocated in the
15	Montague Wind Power Facility, as approved in Final Order on RFA5. The Montague Wind
16	Power Facility is a 201 MW wind energy facility, including 56 wind turbines, located in
17	northeastern Gilliam County.
18	The monitoring objectives are to determine whether the facility causes significant
19	fatalities of birds and bats and to determine whether the facility results in a loss of habitat
20	quality.
21	The certificate holder shall use experienced and properly trained personnel (the
22	"investigators") to conduct the monitoring required under this plan. For all components of this
23	plan except the Wildlife Reporting and Handling System, the certificate holder shall hire
24	independent third-party investigators (not employees of the certificate holder) to perform
25	monitoring tasks.
26	The Wildlife Monitoring and Mitigation Plan for the MWPF has the following
27	components:
28	1) Fatality monitoring program including:
29	a) Definitions and methods
30	b) Removal trials
31	c) Searcher efficiency trials
32	d) Fatality monitoring search protocol
33	e) Incidental finds and injured birds
34	f) Statistical methods for fatality estimates

¹ This plan is incorporated by reference in the site certificate for the MWPF and must be understood in that context. It is not a "stand-alone" document. This plan does not contain all mitigation required of the certificate holder.

1	g) Mitigation
2	2) Raptor nesting surveys
3	3) Washington ground squirrel surveys
4	4) Wildlife Reporting and Handling System
5	5) Data reporting

Based on the results of the monitoring programs, mitigation of significant impacts may be
required. The selection of the mitigation actions should allow for flexibility in creating
appropriate responses to monitoring results that cannot be known in advance. If the Department
determines that mitigation is needed, the certificate holder shall propose appropriate mitigation
actions to the Department and shall carry out mitigation actions approved by the Department,
subject to review by the Oregon Energy Facility Council (Council).

12 1. Fatality Monitoring

13 (a) Definitions and Methods

14 <u>Seasons</u>

15 This plan uses the following dates for defining seasons:

Season	Dates
Spring Migration	March 16 to May 15
Summer/Breeding	May 16 to August 15
Fall Migration	August 16 to October 31
Winter	November 1 to March 15

16 <u>Search Plots</u>

The investigators shall conduct fatality monitoring within search plots. The certificate 17 holder, in consultation with the Oregon Department of Fish and Wildlife (ODFW), shall select 18 19 search plots based on a systematic sampling design with a random starting point that ensures that the selected search plots are representative of the habitat conditions in different parts of the site. 20 Each search plot will contain one turbine. Search plots will be square or circular. Circular search 21 plots will be centered on the turbine location and will have a radius equal to the maximum blade 22 tip height of the turbine contained within the plot. "Maximum blade tip height" is the turbine 23 hub-height plus one-half the rotor diameter. Square search plots will be of sufficient size to 24 contain a circular search plot as described above. The certificate holder shall use the same search 25 plots for each search conducted during a monitoring year. 26

27 <u>Scheduling</u>

Fatality monitoring will begin one month after commencement of commercial operation of the facility. Subsequent monitoring years will follow the same schedule (beginning in the same calendar month in the subsequent monitoring year).

In each monitoring year, the investigators shall conduct fatality monitoring searches at the rates of frequency shown below. Over the course of one monitoring year, the investigators will conduct 16 searches, as follows:

Season	Frequency
Spring Migration	2 searches per month (4 searches)
Summer/Breeding	1 search per month (3 searches)
Fall Migration	2 searches per month (5 searches)
Winter	1 search per month (4 searches)

<u>Sample Size</u>

The sample size for fatality monitoring is the number of turbines searched per monitoring 2 year. The investigators shall conduct fatality monitoring during each monitoring year in search 3 plots at one-third of the turbines that are built or 50 turbines, whichever is greater. If fewer than 4 5 50 turbines are built, the certificate holder shall search all turbines. The facility is being constructed in two phases (Phases 1 and 2). Phase 1 will be completed in advance of Phase 2. 6 7 The number of turbines constructed within both phases will be considered when determining the sample size for the facility, and the turbines searched will be distributed proportionally 8 throughout the entire facility (comprising Phases 1 and 2). 9

The certificate holder may choose to build the MWPF using turbine types in two sizeclasses:

12 13

1

- Small: turbines having a rotor diameter of 82 meters (269 feet) or less
- Large: turbines having a rotor diameter greater than 82 meters

If the final design of the MWPF includes both small and large turbines, the certificate 14 holder shall consult with an independent expert with experience in statistical analysis of avian 15 fatality data to determine whether it would be possible to design a turbine sample with a 16 sufficient number of turbines in each size class to allow a statistical comparison of fatality rates 17 for all birds as a group. The certificate holder shall submit the expert's written analysis to the 18 Department. If the expert's analysis shows that a comparison study is possible and if the 19 Department approves, the certificate holder shall sample the appropriate number of turbines in 20 each class and conduct the comparison study. The certificate holder may choose to sample more 21 than 50 turbines in each monitoring year, if a larger sample size would allow the comparison 22 study to be done. 23

24

Duration of Fatality Monitoring

The investigators shall perform one complete monitoring cycle during the first full year of facility operation (Year 1). Although Phase 1 will be completed in advance of Phase 2, by the time Phase 1 has begun operating, Phase 2 will likely be under construction or about to begin construction. As such, the number and nature of turbines to be constructed in Phase 2 will be known at that time. The certificate holder proposes to select the sample turbines from all turbines throughout the facility (Phases 1 and 2) using a systematic sampling regime with a random start.

Monitoring of the selected turbines in Phase 1 will begin when Phase 1 the facility commences commercial operation and will continue for a full year (52 weeks). Monitoring of the selected turbines in Phase 2 will begin when Phase 2 commences commercial operation and will also continue for a full year. As a result of this sampling plan, Phase 1 will complete a full year of monitoring in advance of Phase 2. Phase 2 will continue monitoring until it, too, has

36 completed a full year of monitoring. As a result of the construction schedule, monitoring of

turbines at the facility will continue without interruption for longer than one full year andpossibly for as long as two full years.

When a full year of monitoring at Phase 1-has been completed, the raw data will be compiled by the certificate holder in a memo style report, which will include any notable results from the year of monitoring, and provided to the Department and ODFW. Then, when a full year of monitoring at Phase 2 is complete, the data for both Phases 1 and 2 will be analyzed together and a report prepared for the entire facility.

8 The certificate holder will report the results of monitoring to the Department and ODFW. In the evaluation, the certificate holder shall compare the results for the MWPF with the 9 thresholds of concern described in Section 1(g) of this plan and with comparable data from other 10 wind power facilities in the Columbia Basin, as available. If the fatality rates for the first year of 11 monitoring at the MWPF do not exceed any of the thresholds of concern and are within the range 12 of the fatality rates found at other wind power facilities in the region, then the investigators will 13 perform a second year of monitoring in Year 5 of operations. This may occur under two 14 scenarios: 15

Monitoring at Phase 1 will begin 5 years after the first year of operation/monitoring. at
 Phase 1, and monitoring at Phase 2 will begin 5 years after the first year of operation/monitoring
 at Phase 2.

19 -or-

20 Monitoring at both Phases 1 and 2 will commence in Year 5 of operations at the facility
 21 (Year 5 of operations at Phase 1 and Year 4 of operations at Phase 2).

If fatality rates for the first year of monitoring at the MWPF exceed any of the thresholds 22 of concern or exceed the range of fatality rates found at other wind power facilities in the region, 23 the certificate holder shall propose additional mitigation for Department and ODFW review 24 25 within 6 months after reporting the fatality rates to the Department. Alternatively, the certificate holder may opt to conduct a second year of fatality monitoring immediately if the certificate 26 holder believes that the combined results of both phases for Year 1 monitoring were anomalous. 27 If the certificate holder takes this option, the investigators still must perform the monitoring in 28 Year 5 of operations as described above. 29

30 (b) Removal Trials

The objective of the removal trials is to estimate the length of time avian and bat carcasses remain in the search area. Estimates of carcass removal rates will be used to adjust carcass counts for removal bias. "Carcass removal" is the disappearance of a carcass from the search area due to predation, scavenging or other means such as farming activity.

The investigators shall conduct carcass removal trials within each of the seasons defined above during the first year of fatality monitoring. For each trial, the investigators shall use 10 to fatality monitoring. For each trial, the investigators shall use 10 to carcasses of small- and large-bodied species. After the first year of fatality monitoring, the investigators may reduce the number of removal trials and the number of removal trial carcasses during any subsequent year of fatality monitoring, subject to the approval of the Department. The investigators must show that the reduction is justified based on a comparison of the first-year removal data with published removal data from nearby wind energy facilities.

The investigators shall use game birds or other legal sources of avian species as test carcasses for the removal trials, and the investigators may use carcasses found in fatality monitoring searches. The investigators shall select species with approximately the same coloration and size attributes as species found within the site boundary. If suitable trial carcasses are available, trials during the fall season will include several small brown birds to simulate bat carcasses. Legally obtained bat carcasses will be used if available.

Trial carcasses will be marked discreetly for recognition by searchers and other
personnel. Carcasses will be placed in a variety of postures to simulate a range of conditions. For
example, birds will be: (1) placed in an exposed posture (e.g., thrown over the shoulder), (2)
hidden to simulate a crippled bird (e.g., placed beneath a shrub or tuft of grass) or (3) partially
hidden. The trial carcasses will be placed randomly within the carcass removal trial plots. Trial
carcasses will be left in place until the end of the carcass removal trial.

An approximate schedule for assessing removal status is once daily for the first 4 days, 13 and on days 7, 10, 14, 21, 28 and 35. This schedule may be adjusted depending on actual carcass 14 removal rates, weather conditions and coordination with the other survey work. The condition of 15 scavenged carcasses will be documented during each assessment, and at the end of the trial all 16 traces of the carcasses will be removed from the site. Scavenger or other activity could result in 17 complete removal of all traces of a carcass in a location or distribution of feathers and carcass 18 parts to several locations. This distribution will not constitute removal if evidence of the carcass 19 remains within an area similar in size to a search plot and if the evidence would be discernible to 20 21 a searcher during a normal survey.

Before beginning removal trials for any subsequent year of fatality monitoring, the certificate holder shall report the results of the first-year removal trials to the Department and ODFW. In the report, the certificate holder shall analyze whether four removal trials per year, as described above, provide sufficient data to accurately estimate adjustment factors for carcass removal. The number of removal trials may be adjusted up or down, subject to the approval of the Department.

28 (c) Searcher Efficiency Trials

The objective of searcher efficiency trials is to estimate the percentage of bird and bat fatalities that searchers are able to find. The investigators shall conduct searcher efficiency trials on the fatality monitoring search plots in both grassland/shrub-steppe and cultivated agriculture habitat types. A pooled estimate of searcher efficiency will be used to adjust carcass counts for detection bias.

The investigators shall conduct searcher efficiency trials within each of the seasons defined above during the years in which the fatality monitoring occurs. Each trial will involve approximately 4 to 15 carcasses. The searchers will not be notified of carcass placement or test dates. The investigators shall vary the number of trials per season and the number of carcasses per trial so that the searchers will not know the total number of trial carcasses being used in any trial. In total, approximately 80 carcasses will be used per year, or approximately 15 to 25 per season.

For each trial, the investigators shall use small- and large-bodied species. The investigators shall use game birds or other legal sources of avian species as test carcasses for the efficiency trials, and the investigators may use carcasses found in fatality monitoring searches.

The investigators shall select species with approximately the same coloration and size attributes as species found within the site boundary. If suitable test carcasses are available, trials during the fall season will include several small brown birds to simulate bat carcasses. Legally obtained bat carcasses will be used if available. The investigators shall mark the test carcasses to differentiate them from other carcasses that might be found within the search plot and shall use methods similar to those used to mark removal test carcasses as long as the procedure is sufficiently discreet and does not increase carcass visibility.

8 The certificate holder shall distribute trial carcasses in varied habitat in rough proportion 9 to the habitat types within the facility site. On the day of a standardized fatality monitoring 10 search (described below) but before the beginning of the search, investigators will place 11 efficiency trial carcasses randomly within search plots (one to three trial carcasses per search 12 plot) within areas to be searched. If scavengers appear attracted by placement of carcasses, the 13 carcasses will be distributed before dawn.

Efficiency trials will be spread over the entire season to incorporate effects of varying weather and vegetation growth. Carcasses will be placed in a variety of postures to simulate a range of conditions. For example, birds will be: (1) placed in an exposed posture (thrown over the shoulder), (2) hidden to simulate a crippled bird or (3) partially hidden.

18 The number and location of the efficiency trial carcasses found during the carcass search 19 will be recorded. The number of efficiency trial carcasses available for detection during each 20 trial will be determined immediately after the trial by the person responsible for distributing the 21 carcasses. Following plot searches, all traces of test carcasses will be removed from the site.

If new searchers are brought into the search team, additional searcher efficiency trials will be conducted to ensure that detection rates incorporate searcher differences. The certificate holder shall include a discussion of any changes in search personnel and any additional detection trials in the reporting required under Section 5 of this plan.

Before beginning searcher efficiency trials for any subsequent year of fatality monitoring, the certificate holder shall report the results of the first-year efficiency trials to the Department and ODFW. In the report, the certificate holder shall analyze whether the efficiency trials as described above provide sufficient data to accurately estimate adjustment factors for searcher efficiency. The number of searcher efficiency trials for any subsequent year of fatality monitoring may be adjusted up or down, subject to the approval of the Department.

32 (d) Fatality Monitoring Search Protocol

The objective of fatality monitoring is to estimate the number of bird and bat fatalities that are attributable to facility operation as an indicator of the impact of the facility on habitat quality. The goal of bird and bat fatality monitoring is to estimate fatality rates and associated variances. The investigators shall perform fatality monitoring using standardized carcass searches according to the schedule described above.

Personnel trained in proper search techniques ("the searchers") will conduct the carcass searches by walking parallel transects approximately 6 meters apart within the search plots. A searcher will walk at a rate of approximately 45 to 60 meters per minute along each transect, searching both sides out to 3 meters for casualties. Search area and speed may be adjusted by habitat type after evaluation of the first searcher efficiency trial.

Searchers shall flag all avian or bat carcasses discovered. Carcasses are defined as a complete carcass or body part, 10 or more feathers or three or more primary feathers in one location. When parts of carcasses and feathers from the same species are found within a search plot, searchers shall make note of the relative positions and assess whether or not these are from the same fatality.

All carcasses (avian and bat) found during the standardized carcass searches will be 6 photographed, recorded and labeled with a unique number. Searchers shall make note of the 7 nearest two or three structures (turbine, power pole, fence, building or overhead line) and the 8 approximate distance from the carcass to these structures. The species and age of the carcass will 9 be determined when possible. Searchers shall note the extent to which the carcass is intact and 10 estimate time since death. Searchers shall describe all evidence that might assist in determination 11 of cause of death, such as evidence of electrocution, vehicular strike, wire strike, predation or 12 13 disease.

The investigators shall calculate fatality rates using the statistical methods described in Section (f), except that the investigators may use different notation or methods that are mathematically equivalent with prior approval of the Department. In making these calculations, the investigators may exclude carcass data from the first search of each turbine plot (to eliminate possible counting of carcasses that were present before the turbine was operating).

The investigators shall estimate the number of avian and bat fatalities attributable to operation of the facility based on the number of avian and bat fatalities found at the facility site. All carcasses located within areas surveyed, regardless of species, will be recorded and, if possible, a cause of death determined based on blind necropsy results. If a different cause of death is not apparent, the fatality will be attributed to facility operation. The total number of avian and bat fatalities will be estimated by adjusting for removal and searcher efficiency bias.

On an annual basis, the certificate holder shall report an estimate of fatalities in eight categories: (1) all birds, (2) small birds, (3) large birds, (4) raptors, (5) grassland birds, (6) nocturnal migrants, (7) state and federally listed threatened and endangered species and State Sensitive Species listed under OAR 635-100-0040 and (8) bats. The certificate holder shall report annual fatality rates on both a per-megawatt (MW) and per-turbine basis.

30 (e) Incidental Finds and Injured Birds

The searchers might discover carcasses incidental to formal carcass searches (e.g., while 31 driving within the project area). For each incidentally discovered carcass, the searcher shall 32 identify, photograph, record data and collect the carcass as would be done for carcasses within 33 the formal search sample during scheduled searches. If the incidentally discovered carcass is 34 found within a formal search plot, the fatality data will be included in the calculation of fatality 35 rates. If the incidentally discovered carcass is found outside a formal search plot, the data will be 36 reported separately. The certificate holder shall coordinate collection of incidentally discovered 37 state endangered, threatened, sensitive or other state protected species with ODFW. The 38 certificate holder shall coordinate incidentally discovered federally-listed endangered or 39 threatened species and Migratory Bird Treaty Act protected avian species with USFWS. 40

Montague Wind Power Facility: Phase 2-Wildlife Monitoring and Mitigation Plan [As AMENDED JANUARY 2018XX 2020]

1 2	The Department?	certificate holder shall contact a qualified rehabilitation specialist approved by the ² to respond to injured wildlife. The certificate holder shall pay costs, if any, charged
3 4	for time and unless the ca	expenses related to care and rehabilitation of injured native birds found on the site, use of injury is clearly demonstrated to be unrelated to the facility operations.
5	(f) Statistica	al Methods for Fatality Estimates
6	The	estimate of the total number of wind facility-related fatalities is based on:
7 8	(2)	The observed number of carcasses found during standardized searches during the two monitoring years for which the cause of death is attributed to the facility. ³
9	(3)	Searcher efficiency expressed as the proportion of planted carcasses found by
10 11 12 13	(4)	searchers. Removal rates expressed as the estimated average probability a carcass is expected to remain in the study area and be available for detection by the searchers during the entire survey period.
14	Definition o	f Variables
15	The following	ng variables are used in the equations below:
16 17	Ci	the number of carcasses detected at plot i for the study period of interest (e.g., one year) for which the cause of death is either unknown or is attributed to the facility
18	n	the number of search plots
19 20 21	k	the number of turbines searched (includes the turbines centered within each search plot and a proportion of the number of turbines adjacent to search plots to account for the effect of adjacent turbines on the search plot buffer area)
22	\overline{c}	the average number of carcasses observed per turbine per year
23	S	the number of carcasses used in removal trials
24 25	S_{C}	the number of carcasses in removal trials that remain in the study area after 35 days
26	se	standard error (square of the sample variance of the mean)
27	t_i	the time (days) a carcass remains in the study area before it is removed
28	\overline{t}	the average time (days) a carcass remains in the study area before it is removed
29	d	the total number of carcasses placed in searcher efficiency trials
30	р	the estimated proportion of detectable carcasses found by searchers
31	Ι	the average interval between searches in days
32 33	$\hat{\pi}$	the estimated probability that a carcass is both available to be found during a search and is found

² Approved specialists include Blue Mountain Wildlife, a wildlife rehabilitation center in Pendleton, and the Audubon Bird Care Center in Portland. The certificate holder must obtain Department approval before using other specialists.

³ If a different cause of death is not apparent, the fatality will be attributed to facility operation.

- 1 m_t the estimated annual average number of fatalities per turbine per year, adjusted 2 for removal and observer detection bias
- C nameplate energy output of turbine in MW
- 4 Observed Number of Carcasses
- 5 The estimated average number of carcasses (\bar{c}) observed per turbine per year is:

$$\bar{c} = \frac{\sum_{i=1}^{n} c_i}{k}.$$
(1)

7 <u>Estimation of Carcass Removal</u>

6

- 8 Estimates of carcass removal are used to adjust carcass counts for removal bias. Mean carcass
- 9 removal time (\bar{t}) is the average length of time a carcass remains at the site before it is removed:

10
$$\bar{t} = \frac{\sum_{i=1}^{s} t_i}{s - s_c}$$
 (2)

- 11 This estimator is the maximum likelihood estimator assuming the removal times follow an
- 12 exponential distribution and there is right-censoring of data. Any trial carcasses remaining at 35
- days are collected, yielding censored observations at 35 days. If all trial carcasses are removed
- before the end of the trial, then s_c is 0, and \bar{t} is just the arithmetic average of the removal times.
- 15 Removal rates will be estimated by carcass size (small and large), habitat type and season.

16 <u>Estimation of Observer Detection Rates</u>

17 Observer detection rates (i.e., searcher efficiency rates) are expressed as *p*, the proportion 18 of trial carcasses that are detected by searchers. Observer detection rates will be estimated by 19 carcass size, habitat type and season.

- 20 Estimation of Facility-Related Fatality Rates
- The estimated per turbine annual fatality rate (m_t) is calculated by:

$$m_t = \frac{\overline{c}}{\hat{\pi}}, \qquad (3)$$

23 where $\hat{\pi}$ includes adjustments for both carcass removal (from scavenging and other means) and

- observer detection bias assuming that the carcass removal times t_i follow an exponential
- distribution. Under these assumptions, this detection probability is estimated by:

26

$$\hat{\pi} = \frac{\bar{t} \cdot p}{I} \cdot \left[\frac{\exp\left(\frac{I}{t}\right) - 1}{\exp\left(\frac{I}{t}\right) - 1 + p} \right].$$
(4)

_

The estimated per MW annual fatality rate (m) is calculated by:

$$m = \frac{m_t}{C}.$$
(5)

The final reported estimates of *m*, associated standard errors and 90% confidence 3 intervals will be calculated using bootstrapping (Manly, 1997). Bootstrapping is a computer 4 simulation technique that is useful for calculating point estimates, variances, and confidence 5 intervals for complicated test statistics. For each iteration of the bootstrap, the plots will be 6 7 sampled with replacement, trial carcasses will be sampled with replacement, and \bar{c} , \bar{t} , p, $\hat{\pi}$ and m will be calculated. A total of 5,000 bootstrap iterations will be used. The reported estimates 8 will be the means of the 5,000 bootstrap estimates. The standard deviation of the bootstrap 9 estimates is the estimated standard error. The lower 5th and upper 95th percentiles of the 5000 10 bootstrap estimates are estimates of the lower limit and upper limit of 90% confidence intervals. 11

12 <u>Nocturnal Migrant and Bat Fatalities</u>

Differences in observed nocturnal migrant and bat fatality rates for lit turbines, unlit turbines that are adjacent to lit turbines and unlit turbines that are not adjacent to lit turbines will be compared graphically and statistically.

16 (g) Mitigation

1

2

The certificate holder shall use best-available science to resolve any uncertainty in the results and to determine whether the data indicate that additional mitigation should be considered. The Department may require additional, targeted monitoring if the data indicate the potential for significant impacts that cannot be addressed by worst-case analysis and appropriate mitigation.

Mitigation may be appropriate if fatality rates exceed a "threshold of concern."⁴ For the purpose of determining whether a threshold has been exceeded, the certificate holder shall calculate the average annual fatality rates for species groups after each year of monitoring. Based on current knowledge of the species that are likely to use the habitat in the area of the facility, the following thresholds apply to the MWPF:

⁴ If a different cause of death is not apparent, the fatality will be attributed to facility operation.

n species in the Final Order on the Application for the Klondike III Wind Project (June 30, 2006) and for bats in the Final Order on the Application for the Biglow Canyon Wind Farm (June 30, 2006). As explained in the Klondike III order: "Although the threshold numbers provide a rough measure for deciding whether the Council should be concerned about observed fatality rates, the thresholds have a very limited scientific basis. The exceeding of a threshold, by itself, would not be a scientific indicator that operation of the facility would result in range-wide population level declines of any of the species affected. The thresholds are provided in the Wildlife Monitoring and Mitigation Plan to guide consideration of additional mitigation based on two years of monitoring data."

Species Group	Threshold of Concern (fatalities per MW)
Raptors (All eagles, hawks, falcons, and owls, including burrowing owls.)	0.09
Raptor species of special concern (Swainson's hawk, ferruginous hawk, peregrine falcon, golden eagle, bald eagle, burrowing owl and any federal threatened or endangered raptor species.)	0.06
Grassland species (All native bird species that rely on grassland habitat and are either resident species occurring year-round or species that nest in the area, excluding horned lark, burrowing owl and northern harrier.)	0.59
State sensitive avian species listed under OAR 635-100-0040 (Excluding raptors listed above.)	0.2
Bat species as a group	2.5

1 If the data show that a threshold of concern for a species group has been exceeded, the certificate holder shall implement additional mitigation if the Department determines that 2 mitigation is appropriate based on analysis of the data, consultation with ODFW and 3 consideration of any other significant information available at the time. In addition, the 4 Department may determine that mitigation is appropriate if fatality rates for individual avian or 5 bat species (especially State Sensitive Species) are higher than expected and at a level of 6 7 biological concern. If the Department determines that mitigation is appropriate, the certificate holder, in consultation with the Department and ODFW, shall propose mitigation measures 8 designed to benefit the affected species. Acceptable mitigation may include, but not limited to, 9 contributions to wildlife rehabilitators, funding of research by third parties on local raptor 10 populations, or habitat mitigation. This may take into consideration whether the mitigation 11 required or provided in conjunction with raptor nest monitoring, habitat mitigation, or other 12 13 components of the Wildlife Monitoring and Mitigation Plan or Habitat Mitigation Plan, would also benefit the affected species. 14

The certificate holder shall implement mitigation as approved by the Department, subject to review by the Council. The Department may recommend additional, targeted data collection if the need for mitigation is unclear based on the information available at the time. The certificate holder shall implement such data collection as approved by the Council.

The certificate holder shall design mitigation to benefit the affected species group. 19 Mitigation may include, but is not limited to, protection of nesting habitat for the affected group 20 of native species through a conservation easement or similar agreement. Tracts of land that are 21 intact and functional for wildlife are preferable to degraded habitat areas. Preference should be 22 given to protection of land that would otherwise be subject to development or use that would 23 diminish the wildlife value of the land. In addition, mitigation measures might include: 24 enhancement of the protected tract by weed removal and control; increasing the diversity of 25 native grasses and forbs; planting sagebrush or other shrubs; constructing and maintaining 26 artificial nest structures for raptors; improving wildfire response; and conducting or making a 27 contribution to research that will aid in understanding more about the affected species and its 28 29 conservation needs in the region.

If the data show that the threshold of concern for bat species as a group has been 1 exceeded, the certificate holder shall implement additional mitigation if the Department 2 determines that mitigation is appropriate based on analysis of the data, consultation with ODFW 3 and consideration of any other significant information available at the time. For example, if the 4 threshold for bat species as a group is exceeded, the certificate holder may contribute to Bat 5 Conservation International or to a Pacific Northwest bat conservation group to fund new or 6 ongoing research in the Pacific Northwest to better understand wind facility impacts to bat 7 species and to develop possible ways to reduce impacts to the affected species. 8

<u>Solar Array</u>

9

In addition to wind turbines, Phase 2 may include a photovoltaic (PV) solar energy array 10 on up to 1,189 acres in Category 6 habitat within the solar micrositing area. Although publicly 11 available fatality studies conducted at PV solar projects are rare in the literature, those that are 12 available have documented fatalities of passerines but raptor and bat fatalities were generally 13 absent. In the most recent study available, Walston et al. (2016) found the rate of bird mortality 14 15 from known causes (i.e., collision with project infrastructure) at a large PV facility in central California was low (0.50 birds/MW/year). In comparison, Johnson and Erickson (2011) 16 17 summarized fatality rates from 25 year-long fatality monitoring studies conducted at 23 windenergy facilities in the Columbia Plateau Ecoregion and found the mean number of all bird 18 (excluding raptors) mortality was 2.28 fatalities/MW/year. 19

20 Some risk of avian mortality occurs with most human development (ranging from single-21 family homes to large-scale industrial projects), but it is unlikely that the proposed PV solar array will result in significant impacts to birds. Known risk factors for avian collision fatalities 22 23 include the height of structures, size of the facility, attributes of structures (e.g., guy wires, type of lighting), as well as the type of development, siting in high-risk areas, and species at potential 24 risk. The role of these risk factors has been outlined in the USFWS guidelines for wind turbines 25 26 (USFWS, 2012) and communication towers (USFWS, 2013), as well as by various publications in the peer reviewed literature (Gehring et al., 2009, 2011; Kerlinger et al., 2010). 27 28 After consideration of potential risk factors, the collision risk to birds from the facility

solar array infrastructure will likely be low. Most importantly, the PV array, as proposed, will be
 located in disturbed habitat, will have only down-shielded lighting, will not have guy wires, and
 will not have any structures exceeding 15 feet (4.6 meters) in height (the greatest height of PV
 panels at full rotation). However, the certificate holder will consult with the Department and
 ODFW to confirm the extent of fatality monitoring that should be conducted for the solar
 faiclity.

35 2. Raptor Nest Surveys

The objectives of raptor nest surveys are: (1) count raptor nests on the ground or aboveground in trees or other aboveground nest locations in the vicinity of the facility; and (2) to determine whether operation of the facility results in a reduction of nesting activity or nesting success in the local populations of the following raptor species: Swainson's hawk, golden eagle, ferruginous hawk, and burrowing owl.

The certificate holder shall conduct short-term and long-term monitoring around Phase 2
 wind turbines. Raptor nest surveys would not occur if Phase 2 is only comprised of solar
 generation. The investigators will use ground surveys to evaluate nest success by gathering data

on active nests, on nests with young and on young fledged. The investigators will analyze the
 data as described in Section 3(c) and will share the data with state biologists.

3 (a) Short-Term Monitoring

Short-term monitoring will be done in two monitoring seasons. The first monitoring
season will be in the first raptor nesting season after completion of construction of the facility.
The second monitoring season will be in the fourth year after construction is completed. The
certificate holder shall provide a summary of the first-year results in the monitoring report
described in Section 5. After the second monitoring season, the investigators will analyze two
years of data compared to the baseline data.

10 For Raptor Species that Nest Aboveground

During each monitoring season, the investigators will conduct a minimum of one aerial and one ground survey for raptor nests in late May or early June and additional surveys as described in this section. The survey area is the area within the site boundary and a 2-mile buffer zone around the site. For the ground surveys while checking for nesting *success* (conducted within the facility site and up to a maximum of ½ mile from the facility site), nests outside the leased project boundary will be checked from an appropriate distance where feasible, depending on permission from the landowner for access.

All nests discovered during preconstruction surveys and any nests discovered during post-construction surveys, whether active or inactive, will be given identification numbers. Nest locations will be recorded on U.S. Geological Survey 7.5-minute quadrangle maps. Global positioning system (GPS) coordinates will be recorded for each nest. Locations of inactive nests will be recorded because they could become occupied during future years.

Determining nest *occupancy* may require one or two visits to each nest. Aerial surveys for nest occupancy will be conducted within the facility site and a 2-mile buffer. For occupied nests, the certificate holder will determine nesting *success* by a minimum of one ground visit to determine the species, number of young and young fledged within the facility site and up to $\frac{1}{2}$ mile from the facility site. "Nesting success" means that the young have successfully fledged (the young are independent of the core nest site).

29 For Burrowing Owls

If burrowing owl nest sites are discovered during pre-construction, construction, or post-30 construction, the investigators will monitor them according to the following protocol approved 31 by ODFW. This species is not easily detected during aerial raptor nest surveys.. Any nests 32 discovered during post-construction surveys, whether active or showing signs of intermittent use 33 by the species, will be given identification numbers. Nest locations will be recorded on U.S. 34 Geological Survey 7.5-minute quadrangle maps. Global positioning system coordinates will be 35 recorded for each nest site. Coordinates for ancillary burrows used by one nesting pair or a group 36 of nesting pairs will also be recorded. Locations of inactive nests will be recorded because they 37 could become occupied during future years. 38

The investigators shall conduct burrowing owl monitoring in the same years as the raptor nest surveys described above. For occupied nests, the investigators shall determine nesting *success* by a minimum of one ground visit to determine species, number of young and young fledged. "Nesting success" means that the young have successfully fledged (the young may or

may not be independent of the core nest site). Three visits to the nest sites may be necessary to
determine outcome. Nests that cannot be monitored due to the landowner denying access will be
checked from a distance where feasible.

If burrowing owl nests are discovered during the first year of post-construction raptor nest surveys (the first raptor nesting season after construction is completed), the investigators shall monitor those nest locations during the second year of surveys in the fourth year after construction is completed. Thereafter, the investigators shall monitor all known burrowing owl nest locations as a part of the long-term raptor nest monitoring program described in Section 2(b) below.

10 (b) Long-Term Monitoring

In addition to the two years of post-construction raptor nest surveys described in Section 11 2(a), the investigators shall conduct long-term raptor nest surveys at 5-year intervals for the life 12 of the facility.⁵ Investigators will conduct the first long-term raptor nest survey in the first raptor 13 nesting season that is at least 5 years after the completion of construction and is in a year that is 14 15 divisible by five (i.e., 2020, 2025, 2030); and will repeat the survey at 5-year intervals thereafter. In conducting long-term surveys, the investigators will follow the same survey protocols as 16 described above in Section 2(a) unless the investigators propose alternative protocols that are 17 approved by the Department. In developing an alternative protocol, the investigators will consult 18 with ODFW and will take into consideration other monitoring conducted in adjacent areas. The 19 investigators will analyze the data and report after each year of long-term raptor nest surveys. 20

21 (c) Analysis

The investigators will analyze the raptor nesting data to determine whether a reduction in either nesting success or nest use has occurred in the survey area. If the analysis indicates a reduction in nesting success or nest use by Swainson's hawks, ferruginous hawks, or burrowing owls, then the certificate holder will propose appropriate mitigation for the affected species as described in Section 2(d) and will implement mitigation as approved by the Department, subject to review by the Council.

Reductions in nesting success or nest use could be due to operation of the MWPF, 28 operation of another wind facility in the vicinity or some other cause. The investigators shall 29 attribute the reduction to operation of the MWPF if the wind turbine closest to the affected nest 30 site is an MWPF turbine, unless the certificate holder demonstrates, and the Department agrees, 31 that the reduction was due to a different cause. At a minimum, if the analysis shows that a 32 Swainson's hawk, ferruginous hawk or burrowing owl has abandoned a nest territory within the 33 facility site or within ¹/₂ mile of the facility site or has not fledged any young over two successive 34 surveys within that same area, the investigators will assume the abandonment or unsuccessful 35 fledging is due to operation of the facility unless another cause can be demonstrated 36 convincingly. 37

Given the low raptor nesting densities in the area and the presence of other wind energy
 facilities nearby, statistical power to detect a relationship between distance from an MWPF wind

⁵ As used in this plan, "life of the facility" means continuously until the facility site is restored and the site certificate is terminated in accordance with OAR 345-027-0110.

1 turbine and nesting parameters (e.g., number of fledglings per reproductive pair) will be very

2 low. Therefore, impacts may have to be judged based on trends in the data, results from other

3 wind energy facility monitoring studies and literature on what is known regarding the

4 populations in the region.

5 (d) Mitigation

If the analysis shows a reduction in nesting success or nest use, the certificate holder shall 6 7 implement mitigation if the Department determines that mitigation is appropriate. The certificate holder shall propose mitigation for the affected species in consultation with the Department and 8 ODFW and shall implement mitigation as approved by the Council. In proposing appropriate 9 mitigation, the certificate holder shall advise the Department if any other wind project in the area 10 is obligated to provide mitigation for a reduction in raptor nesting success at the same nest site. 11 Mitigation should be designed to benefit the affected species or contribute to overall scientific 12 knowledge and understanding of what causes nest abandonment or nest failure. Mitigation may 13 be designed to proceed in phases over several years. It may include, but is not limited to, 14 additional raptor nest monitoring, protection of natural nest sites from human disturbance or 15 cattle activity (preferably within the general area of the facility) or participation in research 16 projects designed to improve scientific understanding of the needs of the affected species. 17 Mitigation may take into consideration whether the mitigation required or provided in 18 conjunction with other components of the Wildlife Monitoring and Mitigation Plan or Habitat 19 Mitigation Plan would also benefit the raptor species whose nesting success was adversely 20

21 affected.

22 **3.** Washington ground squirrel surveys

The certificate holder shall conduct long-term post-construction surveys to collect data on 23 Washington ground squirrel (WGS) activity within the site boundary. Qualified professional 24 25 biologists will monitor the locations within the site boundary where WGS were detected in preconstruction surveys (beginning in 2017). The survey area includes the identified burrow 26 areas and the buffer areas within 785 feet in suitable habitat. The investigators will walk standard 27 protocol-level transects twice between late March and late May and record level of use, notes on 28 natal sites, physical extent of the sites and any noticeable land use or habitat changes that may 29 have occurred since the preconstruction survey in 2017. The investigators shall report any new 30 WGS detections but the boundaries of Category 1 habitat will not be revised from pre-31 32 construction boundaries.

The certificate holder shall conduct surveys during the year following construction and 33 every three years thereafter for the life of the facility in areas where WGS were detected within 34 the typical maximum dispersal distance of 3,281 feet (1,000 meters) of the facility. After each 35 survey, the certificate holder shall report the results to ODFW and to the Department and shall 36 include maps of the areas surveyed and detection locations. WGS surveys will not be conducted 37 if there are barriers to WGS dispersal (i.e., active agriculture fields, highways, perennial 38 waterbodies) or an absence of suitable habitat corridors that would prevent the dispersal of WGS 39 into areas where facility components are located. 40

1 4. Wildlife Reporting and Handling System

The Wildlife Reporting and Handling System is a voluntary monitoring program for maintenance personnel to search for avian and bat casualties during operation of the facility. Maintenance personnel will be trained in the methods needed to carry out this program. This monitoring program includes the initial response, handling, and reporting of bird and bat carcasses discovered incidental to maintenance operations ("incidental finds"). This is a voluntary program and may be discounted by the certificate holder at any time.

8 During the years in which fatality monitoring occurs, if maintenance personnel discover 9 incidental finds outside the search plots for the fatality monitoring searches, the data will be 10 reported separately from fatality monitoring data. If maintenance personnel discover carcasses 11 within search plots, the data will be included in the calculation of fatality rates. The maintenance 12 personnel will notify a project biologist..

13 5. Data Reporting

14 The certificate holder will report wildlife monitoring data and analysis to the Department for each calendar year in which wildlife monitoring occurs. Monitoring data include fatality 15 monitoring program data, raptor nest survey data, WGS survey data, WGS incidental observation 16 and assessment reports and Wildlife Reporting and Handling System data. The certificate holder 17 may include the reporting of wildlife monitoring data and analysis in the annual report required 18 under OAR 345-026-0080 or submit this information as a separate document at the same time 19 the annual report is submitted. In addition, the certificate holder shall provide to the Department 20 any data or record generated in carrying out this monitoring plan upon request by the 21 Department. 22

The certificate holder shall notify USFWS and ODFW if any federal or state endangered or threatened species are killed or injured on the facility site within 48 hours of species identification.

Within 30 days after receiving the final versions of reports that are required under this plan, the Department will make the reports available to the public on its website and will specify a time in which the public may submit comments to the Department.⁶

29 6. Amendment of the Plan

This *Wildlife Monitoring and Mitigation Plan* may be amended from time to time by agreement of the certificate holder and the Council. Such amendments may be made without amendment of the site certificate. The Council authorizes the Department to agree to amendments to this plan and to mitigation actions that may be required under this plan. The Department shall notify the Council of all amendments and mitigation actions, and the Council retains the authority to approve, reject or modify any amendment of this plan or mitigation action agreed to by the Department.

⁶ The certificate holder may establish a Technical Advisor Committee (TAC) but is not required to do so. If the certificate holder establishes a TAC, the TAC may offer comments to the Council about the results of the monitoring required under this plan.

1 7. References

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 Tower Design, Siting, Construction, Operation, Retrofitting, and Decommissioning --

23 Suggestions Based on Previous USFWS Recommendations to FCC Regarding WT Docket No.

24 03-187, FCC 06-164, Notice of Proposed Rulemaking, "Effects of Communication Towers on

25 Migratory Birds," Docket No. 08-61, FCC's Antenna Structure Registration Program, and

26 Service 2012 Wind Energy Guidelines.

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Draft Montague Solar Facility Wildlife Monitoring and Mitigation Plan

Montague Wind PowerSolar Facility: Phase 2-Wildlife Monitoring and Mitigation Plan [AS AMENDED JANUARY 2018XX 2020]

1	This plan describes wildlife monitoring that the certificate holder shall conduct during
2	operation of Phase 2 of the Montague Wind PowerSolar Facility (MWPF). ¹ This plan was
3	approved in September 2019 as part of the Energy Facility Siting Council's (EFSC) Final Order
4	on Request for Amendment 4 of the Montague wind Power Facility site certificate (Final Order
5 6	specifications of wind facility components and the addition of approximately 1 189 acres of solar
7	photovoltaic energy generation equipment. Within the 1 189 acres approved for solar facility
, 8	components the land was used for cultivation of dryland winter wheat and was designated
9	habitat Category 6. In XX, 2020, the Council approved Final Order on Request for Amendment 5
10	of the Montague Wind Power Facility site certificate (Final Order on RFA5), authorizing
11	previously approved facility components (Phase 2) to be allocated under original site certificates
12	for facilities named Montague Solar Facility and Oregon Trail Solar Facility. The site certificate
13	issued for the Montague Solar Facility was based entirely on the previously approved Montague
14	Wind Power Facility site certificate; mitigation plans were based entirely on those approved in
15	the Final Order on RFA4; modifications were incorporated into the site certificates and
16	mitigation plans based on the allocation of previously approved facility components, location
17	and type of equipment.
18	This Wildlife Monitoring and Mitigation Plan is based on the draft amended plan
19	provided as Attachment F of the Final Order on RFA4, revised accordingly to describe and apply
20	to the Montague Solar Facility. The Montague Solar Facility is a 162 megawatt (MW) solar
21	photovoltaic energy facility located within a 1,496 solar micrositing area and 1,763 acre site
22	boundary, in northeastern Gilliam County.
23	The monitoring objectives are to determine whether the facility causes significant
24	fatalities of birds and bats and to determine whether the facility results in a loss of habitat
25	quality.
26	The certificate holder shall use experienced and properly trained personnel (the
27	"investigators") to conduct the monitoring required under this plan. For all components of this
28	plan except the Wildlife Reporting and Handling System, the certificate holder shall hire
29	independent third-party investigators (not employees of the certificate holder) to perform
30	monitoring tasks.
31	The Wildlife Monitoring and Mitigation Plan for the MWPF-Montague Solar Facility has
32	the following components:
33	1) Fatality monitoring program including:
34	a) Definitions and methods
35	b) Removal trials

¹ This plan is incorporated by reference in the site certificate for the <u>MWPF-Montague Solar Facility</u> and must be understood in that context. It is not a "stand-alone" document. This plan does not contain all mitigation required of the certificate holder.

	Montague <mark>Wind Power<u>Solar</u> Facility: Phase 2-Wildlife Monitoring and Mitigation Plan [As Amended January 2018XX 2020]</mark>
1	c) Searcher efficiency trials
2	d) Fatality monitoring search protocol
3	e) Incidental finds and injured birds
4	f) Statistical methods for fatality estimates
5	g) Mitigation
6	2) Raptor nesting surveys
7	3) Washington ground squirrel surveys
8	4)1) Wildlife Reporting and Handling System
9	5)2) Data reporting
10 11 12 13 14 15	Based on the results of the monitoring programs, mitigation of significant impacts may be required. The selection of the mitigation actions should allow for flexibility in creating appropriate responses to monitoring results that cannot be known in advance. If the Department determines that mitigation is needed, the certificate holder shall propose appropriate mitigation actions to the Department and shall carry out mitigation actions approved by the Department, subject to review by the Oregon Energy Facility Council (Council).
16	1. Fatality Monitoring
17	(a) Definitions and Methods

18 Seasons

19 This plan uses the following dates for defining seasons:

Season	Dates
Spring Migration	March 16 to May 15
Summer/Breeding	May 16 to August 15
Fall Migration	August 16 to October 31
Winter	November 1 to March 15

20 <u>Search Plots</u>

The investigators shall conduct fatality monitoring within search plots. The certificate holder, in consultation with the Oregon Department of Fish and Wildlife (ODFW), shall select search plots based on a systematic sampling design with a random starting point that ensures that the selected search plots are representative of the habitat conditions in different parts of the site. Each search plot will contain one turbine. Search plots will be square or circular. Circular search

- 26 plots will be centered on the turbine location and will have a radius equal to the maximum blade
- 27 tip height of the turbine contained within the plot. "Maximum blade tip height" is the turbine
- 28 hub-height plus one-half the rotor diameter. Square search plots will be of sufficient size to
- 29 contain a circular search plot as described above. The certificate holder shall use the same search
- 30 plots for each search conducted during a monitoring year.

<u>Scheduling</u>

1

2 Fatality monitoring will begin one month after commencement of commercial operation
3 of the facility. Subsequent monitoring years will follow the same schedule (beginning in the
4 same calendar month in the subsequent monitoring year).

5 In each monitoring year, the investigators shall conduct fatality monitoring searches at

the rates of frequency shown below. Over the course of one monitoring year, the investigators
 will conduct 16 searches, as follows:

SeasonFrequencySpring Migration2 searches per month (4 searches)Summer/Breeding1 search per month (3 searches)Fall Migration2 searches per month (5 searches)Winter1 search per month (4 searches)

8 <u>Sample Size</u>

9 The sample size for fatality monitoring is the number of turbines searched per monitoring 10 year. The investigators shall conduct fatality monitoring during each monitoring year in search

11 plots at one-third of the turbines that are built or 50 turbines, whichever is greater. If fewer than

12 50 turbines are built, the certificate holder shall search all turbines. The facility is being

13 constructed in two phases (Phases 1 and 2). Phase 1 will be completed in advance of Phase 2.

14 The number of turbines constructed within both phases will be considered when determining the

15 sample size for the facility, and the turbines searched will be distributed proportionally

16 throughout the entire facility (comprising Phases 1 and 2).

- The certificate holder may choose to build the MWPF using turbine types in two size
 classes:
- 19 20

• Small: turbines having a rotor diameter of 82 meters (269 feet) or less

• Large: turbines having a rotor diameter greater than 82 meters

If the final design of the MWPF includes both small and large turbines, the certificate 21 holder shall consult with an independent expert with experience in statistical analysis of avian 22 fatality data to determine whether it would be possible to design a turbine sample with a 23 sufficient number of turbines in each size class to allow a statistical comparison of fatality rates 24 for all birds as a group. The certificate holder shall submit the expert's written analysis to the 25 26 Department. If the expert's analysis shows that a comparison study is possible and if the Department approves, the certificate holder shall sample the appropriate number of turbines in 27 each class and conduct the comparison study. The certificate holder may choose to sample more 28 than 50 turbines in each monitoring year, if a larger sample size would allow the comparison 29

30 study to be done.

31 <u>Duration of Fatality Monitoring</u>

The investigators shall perform one complete monitoring cycle during the first full year of facility operation (Year 1). Although Phase 1 will be completed in advance of Phase 2, by the time Phase 1 has begun operating, Phase 2 will likely be under construction or about to begin construction. As such, the number and nature of turbines to be constructed in Phase 2 will be

1 2	known at that time. The certificate holder proposes to select the sample turbines from all turbines throughout the facility (Phases 1 and 2) using a systematic sampling regime with a random start.
3 4 5 6 7 8 9	Monitoring of the selected turbines in Phase 1 will begin when Phase 1 commences commercial operation and will continue for a full year (52 weeks). Monitoring of the selected turbines in Phase 2 will begin when Phase 2 commences commercial operation and will also continue for a full year. As a result of this sampling plan, Phase 1 will complete a full year of monitoring in advance of Phase 2. Phase 2 will continue monitoring until it, too, has completed a full year of monitoring. As a result of the construction schedule, monitoring of turbines at the facility will continue without interruption for longer than one full year and possibly for as long as two full years.
11 12 13 14 15	When a full year of monitoring at Phase 1 has been completed, the raw data will be compiled by the certificate holder in a memo style report, which will include any notable results from the year of monitoring, and provided to the Department and ODFW. Then, when a full year of monitoring at Phase 2 is complete, the data for both Phases 1 and 2 will be analyzed together and a report prepared for the entire facility.
16 17 18 19 20 21 22 23	The certificate holder will report the results of monitoring to the Department and ODFW. In the evaluation, the certificate holder shall compare the results for the MWPF with the thresholds of concern described in Section 1(g) of this plan and with comparable data from other wind power facilities in the Columbia Basin, as available. If the fatality rates for the first year of monitoring at the MWPF do not exceed any of the thresholds of concern and are within the range of the fatality rates found at other wind power facilities in the region, then the investigators will perform a second year of monitoring in Year 5 of operations. This may occur under two scenarios:
24 25 26	Monitoring at Phase 1 will begin 5 years after the first year of operation/monitoring at Phase 1, and monitoring at Phase 2 will begin 5 years after the first year of operation/monitoring at Phase 2.
27	-or-
28 29	Monitoring at both Phases 1 and 2 will commence in Year 5 of operations at the facility (Year 5 of operations at Phase 1 and Year 4 of operations at Phase 2).
30 31 32 33 34 35 36 37	If fatality rates for the first year of monitoring at the MWPF exceed any of the thresholds of concern or exceed the range of fatality rates found at other wind power facilities in the region, the certificate holder shall propose additional mitigation for Department and ODFW review within 6 months after reporting the fatality rates to the Department. Alternatively, the certificate holder may opt to conduct a second year of fatality monitoring immediately if the certificate holder believes that the combined results of both phases for Year 1 monitoring were anomalous. If the certificate holder takes this option, the investigators still must perform the monitoring in Year 5 of operations as described above.
38	(b) Removal Trials
39	The objective of the removal trials is to estimate the length of time avian and bat
40	carcasses remain in the search area. Estimates of carcass removal rates will be used to adjust
41 42	carcass counts for removal bias. "Carcass removal" is the disappearance of a carcass from the search area due to predation, scavenging or other means such as farming activity.

1 The investigators shall conduct carcass removal trials within each of the seasons defined 2 above during the first year of fatality monitoring. For each trial, the investigators shall use 10 to 3 15 carcasses of small- and large bodied species. After the first year of fatality monitoring, the 4 investigators may reduce the number of removal trials and the number of removal trial carcasses 5 during any subsequent year of fatality monitoring, subject to the approval of the Department. The 6 investigators must show that the reduction is justified based on a comparison of the first-year 7 removal data with published removal data from nearby wind energy facilities.

8 The investigators shall use game birds or other legal sources of avian species as test
 9 carcasses for the removal trials, and the investigators may use carcasses found in fatality
 10 monitoring searches. The investigators shall select species with approximately the same
 11 coloration and size attributes as species found within the site boundary. If suitable trial carcasses
 12 are available, trials during the fall season will include several small brown birds to simulate bat
 13 carcasses. Legally obtained bat carcasses will be used if available.

Trial carcasses will be marked discreetly for recognition by searchers and other
 personnel. Carcasses will be placed in a variety of postures to simulate a range of conditions. For
 example, birds will be: (1) placed in an exposed posture (e.g., thrown over the shoulder), (2)
 hidden to simulate a crippled bird (e.g., placed beneath a shrub or tuft of grass) or (3) partially

hidden. The trial carcasses will be placed randomly within the carcass removal trial plots. Trial
 carcasses will be left in place until the end of the carcass removal trial.

20 An approximate schedule for assessing removal status is once daily for the first 4 days, and on days 7, 10, 14, 21, 28 and 35. This schedule may be adjusted depending on actual carcass 21 removal rates, weather conditions and coordination with the other survey work. The condition of 22 23 scavenged carcasses will be documented during each assessment, and at the end of the trial all 24 traces of the carcasses will be removed from the site. Scavenger or other activity could result in complete removal of all traces of a carcass in a location or distribution of feathers and carcass 25 26 parts to several locations. This distribution will not constitute removal if evidence of the carcass remains within an area similar in size to a search plot and if the evidence would be discernible to 27 28 a searcher during a normal survey.

Before beginning removal trials for any subsequent year of fatality monitoring, the
 certificate holder shall report the results of the first year removal trials to the Department and
 ODFW. In the report, the certificate holder shall analyze whether four removal trials per year, as
 described above, provide sufficient data to accurately estimate adjustment factors for carcass
 removal. The number of removal trials may be adjusted up or down, subject to the approval of
 the Department.

35 (c) Searcher Efficiency Trials

The objective of searcher efficiency trials is to estimate the percentage of bird and bat
 fatalities that searchers are able to find. The investigators shall conduct searcher efficiency trials
 on the fatality monitoring search plots in both grassland/shrub-steppe and cultivated agriculture
 habitat types. A pooled estimate of searcher efficiency will be used to adjust carcass counts for
 detection bias.

The investigators shall conduct searcher efficiency trials within each of the seasons
defined above during the years in which the fatality monitoring occurs. Each trial will involve
approximately 4 to 15 carcasses. The searchers will not be notified of carcass placement or test

1 dates. The investigators shall vary the number of trials per season and the number of carcasses

per trial so that the searchers will not know the total number of trial carcasses being used in any
 trial. In total, approximately 80 carcasses will be used per year, or approximately 15 to 25 per

4 season.

For each trial, the investigators shall use small- and large-bodied species. The 5 investigators shall use game birds or other legal sources of avian species as test carcasses for the 6 7 efficiency trials, and the investigators may use carcasses found in fatality monitoring searches. The investigators shall select species with approximately the same coloration and size attributes 8 as species found within the site boundary. If suitable test carcasses are available, trials during the 9 10 fall season will include several small brown birds to simulate bat carcasses. Legally obtained bat carcasses will be used if available. The investigators shall mark the test carcasses to differentiate 11 them from other carcasses that might be found within the search plot and shall use methods 12 13 similar to those used to mark removal test carcasses as long as the procedure is sufficiently

14 discreet and does not increase carcass visibility.

The certificate holder shall distribute trial carcasses in varied habitat in rough proportion
 to the habitat types within the facility site. On the day of a standardized fatality monitoring

17 search (described below) but before the beginning of the search, investigators will place

18 efficiency trial carcasses randomly within search plots (one to three trial carcasses per search

plot) within areas to be searched. If scavengers appear attracted by placement of carcasses, the
 carcasses will be distributed before dawn.

- Efficiency trials will be spread over the entire season to incorporate effects of varying
 weather and vegetation growth. Carcasses will be placed in a variety of postures to simulate a
 range of conditions. For example, birds will be: (1) placed in an exposed posture (thrown over
- 24 the shoulder), (2) hidden to simulate a crippled bird or (3) partially hidden.

The number and location of the efficiency trial carcasses found during the carcass search
 will be recorded. The number of efficiency trial carcasses available for detection during each
 trial will be determined immediately after the trial by the person responsible for distributing the
 carcasses. Following plot searches, all traces of test carcasses will be removed from the site.

If new searchers are brought into the search team, additional searcher efficiency trials
 will be conducted to ensure that detection rates incorporate searcher differences. The certificate
 holder shall include a discussion of any changes in search personnel and any additional detection
 trials in the reporting required under Section 5 of this plan.

Before beginning searcher efficiency trials for any subsequent year of fatality monitoring,
 the certificate holder shall report the results of the first year efficiency trials to the Department
 and ODFW. In the report, the certificate holder shall analyze whether the efficiency trials as
 described above provide sufficient data to accurately estimate adjustment factors for searcher

37 efficiency. The number of searcher efficiency trials for any subsequent year of fatality

38 monitoring may be adjusted up or down, subject to the approval of the Department.

39 (d) Fatality Monitoring Search Protocol

40 The objective of fatality monitoring is to estimate the number of bird and bat fatalities
41 that are attributable to facility operation as an indicator of the impact of the facility on habitat
42 quality. The goal of bird and bat fatality monitoring is to estimate fatality rates and associated

variances. The investigators shall perform fatality monitoring using standardized carcass
 searches according to the schedule described above.

Personnel trained in proper search techniques ("the searchers") will conduct the carcass
searches by walking parallel transects approximately 6 meters apart within the search plots. A
searcher will walk at a rate of approximately 45 to 60 meters per minute along each transect,
searching both sides out to 3 meters for casualties. Search area and speed may be adjusted by
habitat type after evaluation of the first searcher efficiency trial.

8 Searchers shall flag all avian or bat carcasses discovered. Carcasses are defined as a
 9 complete carcass or body part, 10 or more feathers or three or more primary feathers in one
 10 location. When parts of carcasses and feathers from the same species are found within a search
 11 plot, searchers shall make note of the relative positions and assess whether or not these are from
 12 the same fatality.

13 All carcasses (avian and bat) found during the standardized carcass searches will be photographed, recorded and labeled with a unique number. Searchers shall make note of the 14 nearest two or three structures (turbine, power pole, fence, building or overhead line) and the 15 approximate distance from the carcass to these structures. The species and age of the carcass will 16 17 be determined when possible. Searchers shall note the extent to which the carcass is intact and estimate time since death. Searchers shall describe all evidence that might assist in determination 18 of cause of death, such as evidence of electrocution, vehicular strike, wire strike, predation or 19 20 disease.

The investigators shall calculate fatality rates using the statistical methods described in
 Section (f), except that the investigators may use different notation or methods that are
 mathematically equivalent with prior approval of the Department. In making these calculations,
 the investigators may exclude carcass data from the first search of each turbine plot (to eliminate
 possible counting of carcasses that were present before the turbine was operating).

The investigators shall estimate the number of avian and bat fatalities attributable to operation of the facility based on the number of avian and bat fatalities found at the facility site. All carcasses located within areas surveyed, regardless of species, will be recorded and, if possible, a cause of death determined based on blind necropsy results. If a different cause of death is not apparent, the fatality will be attributed to facility operation. The total number of avian and bat fatalities will be estimated by adjusting for removal and searcher efficiency bias.

On an annual basis, the certificate holder shall report an estimate of fatalities in eight categories: (1) all birds, (2) small birds, (3) large birds, (4) raptors, (5) grassland birds, (6) nocturnal migrants, (7) state and federally listed threatened and endangered species and State Sensitive Species listed under OAR 635-100-0040 and (8) bats. The certificate holder shall report annual fatality rates on both a per megawatt (MW) and per turbine basis.

37 (e) Incidental Finds and Injured Birds

38 The searchers might discover carcasses incidental to formal carcass searches (e.g., while 39 driving within the project area). For each incidentally discovered carcass, the searcher shall 40 identify, photograph, record data and collect the carcass as would be done for carcasses within 41 the formal search sample during scheduled searches. If the incidentally discovered carcass is 42 found within a formal search plot, the fatality data will be included in the calculation of fatality 43 rates. If the incidentally discovered carcass is found outside a formal search plot, the data will be

1 2 3 4	reported separately. The certificate holder shall coordinate collection of incidentally discovered state endangered, threatened, sensitive or other state protected species with ODFW. The certificate holder shall coordinate incidentally discovered federally listed endangered or threatened species and Migratory Bird Treaty Act protected avian species with USFWS.		
5	The certificate holder shall contact a qualified rehabilitation specialist approved by the		
6	Department ² to respond to injured wildlife. The certificate holder shall pay costs, if any, charged		
7 8	for time and expenses related to care and rehabilitation of injured native birds found on the site, unless the cause of injury is clearly demonstrated to be unrelated to the facility operations.		
9	(f) Statistical Methods for Fatality Estimates		
10	The estimate of the total number of wind facility-related fatalities is based on:		
11	(2) The observed number of carcasses found during standardized searches during the		
12	two monitoring years for which the cause of death is attributed to the facility. ³		
13	(3) Searcher efficiency expressed as the proportion of planted carcasses found by		
14	searchers.		
15	(4) Removal rates expressed as the estimated average probability a carcass is expected		
16	to remain in the study area and be available for detection by the searchers during		
17	the entire survey period.		
18	Definition of Variables		
19	The following variables are used in the equations below:		
20	c_i the number of carcasses detected at plot <i>i</i> for the study period of interest (e.g., one		
21	year) for which the cause of death is either unknown or is attributed to the facility		
22	<i>n</i> ————————————————————————————————————		
23	k the number of turbines searched (includes the turbines centered within each		
24	search plot and a proportion of the number of turbines adjacent to search plots to		
25	account for the effect of adjacent turbines on the search plot buffer area)		
26	\overline{c} the average number of carcasses observed per turbine per year		
27	s the number of carcasses used in removal trials		
28	s_c the number of carcasses in removal trials that remain in the study area after 35		
29	days		
30	se standard error (square of the sample variance of the mean)		
31	t_i the time (days) a carcass remains in the study area before it is removed		
32	\overline{t} the average time (days) a carcass remains in the study area before it is removed		

² Approved specialists include Blue Mountain Wildlife, a wildlife rehabilitation center in Pendleton, and the Audubon Bird Care Center in Portland. The certificate holder must obtain Department approval before using other specialists.

³If a different cause of death is not apparent, the fatality will be attributed to facility operation.

	Montague Wind Power<u>Solar</u> Facility: <u>Phase 2</u> Wildlife Monitoring and Mitigation Plan	
1	the estimated proportion of detectable carcasses found by searchers	
י ר	I the average interval between searches in days	
Ζ	The average interval between searches in days	
3 4	π — the estimated probability that a carcass is both available to be found during a search and is found	
5 6	<i>m</i> _t the estimated annual average number of fatalities per turbine per year, adjusted for removal and observer detection bias	
7	C nameplate energy output of turbine in MW	
8	Observed Number of Carcasses	
9	The estimated average number of carcasses (\overline{c}) observed per turbine per year is:	
	$\sum_{n=1}^{n} c_{n}$	
10	$\overline{\overline{c}} = \frac{\sum_{i=1}^{C_i}}{k}.$ (1)	
11 12 13 14	Estimation of Carcass Removal Estimates of carcass removal are used to adjust carcass counts for removal bias. Mean carcass removal time (\bar{t}) is the average length of time a carcass remains at the site before it is removed: $\frac{\sum_{i=1}^{s} t_{i}}{\bar{t} = \frac{i=1}{c_{i} - c_{i}}}$ (2)	
	$s - s_c$	
15	This estimator is the maximum likelihood estimator assuming the removal times follow an	
17	days are collected, yielding censored observations at 35 days. If all trial carcasses are removed	
18	before the end of the trial, then s_e is 0, and \overline{t} is just the arithmetic average of the removal times.	
19	Removal rates will be estimated by carcass size (small and large), habitat type and season.	
20	Estimation of Observer Detection Rates	
21	Observer detection rates (i.e., searcher efficiency rates) are expressed as p, the proportion	
22	of trial carcasses that are detected by searchers. Observer detection rates will be estimated by	
23	carcass size, habitat type and season.	
24	Estimation of Facility-Related Fatality Rates	
25	The estimated per turbine annual fatality rate (m_t) is calculated by:	
26	$\frac{m_t = \frac{\bar{c}}{\hat{\pi}}}{,}$ (3)	
27	where $\hat{\pi}$ includes adjustments for both carcass removal (from scavenging and other means) and	
28	observer detection bias assuming that the carcass removal times t_i follow an exponential	

distribution. Under these assumptions, this detection probability is estimated by: 29

$$\hat{\pi} = \frac{\bar{t} \cdot p}{I} \begin{bmatrix} \exp\left(\frac{I}{\bar{t}}\right) - 1 \\ \exp\left(\frac{I}{\bar{t}}\right) - 1 + p \end{bmatrix}.$$

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The estimated per MW annual fatality rate (m) is calculated by:

$$\frac{m = \frac{m_t}{C}}{C}.$$
(5)

The final reported estimates of *m*, associated standard errors and 90% confidence intervals will be calculated using bootstrapping (Manly, 1997). Bootstrapping is a computer simulation technique that is useful for calculating point estimates, variances, and confidence intervals for complicated test statistics. For each iteration of the bootstrap, the plots will be sampled with replacement, trial carcasses will be sampled with replacement, and \bar{c} , \bar{t} , p, $\hat{\pi}$ -and m will be calculated. A total of 5,000 bootstrap iterations will be used. The reported estimates

will be the means of the 5,000 bootstrap estimates. The standard deviation of the bootstrap
 estimates is the estimated standard error. The lower 5th and upper 95th percentiles of the 5000

12 bootstrap estimates are estimates of the lower limit and upper limit of 90% confidence intervals.

13 Nocturnal Migrant and Bat Fatalities

Differences in observed nocturnal migrant and bat fatality rates for lit turbines, unlit
 turbines that are adjacent to lit turbines and unlit turbines that are not adjacent to lit turbines will
 be compared graphically and statistically.

17 (g) Mitigation

18 The certificate holder shall use best-available science to resolve any uncertainty in the

19 results and to determine whether the data indicate that additional mitigation should be

20 considered. The Department may require additional, targeted monitoring if the data indicate the

potential for significant impacts that cannot be addressed by worst-case analysis and appropriate
 mitigation.

Mitigation may be appropriate if fatality rates exceed a "threshold of concern."⁴ For the
 purpose of determining whether a threshold has been exceeded, the certificate holder shall
 calculate the average annual fatality rates for species groups after each year of monitoring. Based
 on current knowledge of the species that are likely to use the habitat in the area of the facility, the
 following thresholds apply to the MWPF:

(4)

⁴ If a different cause of death is not apparent, the fatality will be attributed to facility operation.

n species in the Final Order on the Application for the Klondike III Wind Project (June 30, 2006) and for bats in the Final Order on the Application for the Biglow Canyon Wind Farm (June 30, 2006). As explained in the Klondike III order: "Although the threshold numbers provide a rough measure for deciding whether the Council should be concerned about observed fatality rates, the thresholds have a very limited scientific basis. The exceeding of a threshold, by itself, would not be a scientific indicator that operation of the facility would result in range wide population level declines of any of the species affected. The thresholds are provided in the Wildlife Monitoring and Mitigation Plan to guide consideration of additional mitigation based on two years of monitoring data."

Species Group	Threshold of Concern (fatalities per MW)
Raptors (All eagles, hawks, falcons, and owls, including burrowing owls.)	0.09
Raptor species of special concern (Swainson's hawk, ferruginous hawk, peregrine falcon, golden eagle, bald eagle, burrowing owl and any federal threatened or endangered raptor species.)	0.06
Grassland species (All native bird species that rely on grassland habitat and are either resident species occurring year round or species that nest in the area, excluding horned lark, burrowing owl and northern harrier.)	0.59
State sensitive avian species listed under OAR 635-100-0040 (Excluding raptors listed above.)	0.2
Bat species as a group	2.5

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If the data show that a threshold of concern for a species group has been exceeded, the certificate holder shall implement additional mitigation if the Department determines that 2 3 mitigation is appropriate based on analysis of the data, consultation with ODFW and 4 consideration of any other significant information available at the time. In addition, the 5 Department may determine that mitigation is appropriate if fatality rates for individual avian or

6 bat species (especially State Sensitive Species) are higher than expected and at a level of

7 biological concern. If the Department determines that mitigation is appropriate, the certificate

holder, in consultation with the Department and ODFW, shall propose mitigation measures 8

designed to benefit the affected species. Acceptable mitigation may include, but not limited to, 9

10 contributions to wildlife rehabilitators, funding of research by third parties on local raptor

11 populations, or habitat mitigation. This may take into consideration whether the mitigation required or provided in conjunction with raptor nest monitoring, habitat mitigation, or other 12

13 components of the Wildlife Monitoring and Mitigation Plan or Habitat Mitigation Plan, would

14 also benefit the affected species.

15 The certificate holder shall implement mitigation as approved by the Department, subject 16 to review by the Council. The Department may recommend additional, targeted data collection if the need for mitigation is unclear based on the information available at the time. The certificate 17 18 holder shall implement such data collection as approved by the Council.

The certificate holder shall design mitigation to benefit the affected species group. 19 20 Mitigation may include, but is not limited to, protection of nesting habitat for the affected group 21 of native species through a conservation easement or similar agreement. Tracts of land that are intact and functional for wildlife are preferable to degraded habitat areas. Preference should be 22 23 given to protection of land that would otherwise be subject to development or use that would 24 diminish the wildlife value of the land. In addition, mitigation measures might include: 25 enhancement of the protected tract by weed removal and control; increasing the diversity of 26 native grasses and forbs; planting sagebrush or other shrubs; constructing and maintaining 27 artificial nest structures for raptors; improving wildfire response; and conducting or making a contribution to research that will aid in understanding more about the affected species and its 28

29 conservation needs in the region.

If the data show that the threshold of concern for bat species as a group has been exceeded, the certificate holder shall implement additional mitigation if the Department determines that mitigation is appropriate based on analysis of the data, consultation with ODFW and consideration of any other significant information available at the time. For example, if the threshold for bat species as a group is exceeded, the certificate holder may contribute to Bat Conservation International or to a Pacific Northwest bat conservation group to fund new or ongoing research in the Pacific Northwest to better understand wind facility impacts to bat

8 species and to develop possible ways to reduce impacts to the affected species.

Solar Array

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In addition to wind turbines, Phase 2 may include a photovoltaic (PV) solar energy array 10 on up to 1,189 acres in Category 6 habitat within the solar micrositing area. Although publicly 11 available fatality studies conducted at PV solar projects are rare in the literature, those that are 12 available have documented fatalities of passerines but raptor and bat fatalities were generally 13 absent. In the most recent study available, Walston et al. (2016) found the rate of bird mortality 14 15 from known causes (i.e., collision with project infrastructure) at a large PV facility in central California was low (0.50 birds/MW/year). In comparison, Johnson and Erickson (2011) 16 17 summarized fatality rates from 25 year-long fatality monitoring studies conducted at 23 windenergy facilities in the Columbia Plateau Ecoregion and found the mean number of all bird 18 (excluding raptors) mortality was 2.28 fatalities/MW/year. 19

Some risk of avian mortality occurs with most human development (ranging from single-20 family homes to large-scale industrial projects), but it is unlikely that the proposed PV solar 21 array will result in significant impacts to birds. Known risk factors for avian collision fatalities 22 include the height of structures, size of the facility, attributes of structures (e.g., guy wires, type 23 of lighting), as well as the type of development, siting in high-risk areas, and species at potential 24 risk. The role of these risk factors has been outlined in the USFWS guidelines for wind turbines 25 (USFWS, 2012) and communication towers (USFWS, 2013), as well as by various publications 26 in the peer reviewed literature (Gehring et al., 2009, 2011; Kerlinger et al., 2010). 27

After consideration of potential risk factors, the collision risk to birds from the facility solar array infrastructure will likely be low. Most importantly, the PV array, as proposed, will be located in disturbed habitat, will have only down-shielded lighting, will not have guy wires, and will not have any structures exceeding 15 feet (4.6 meters) in height (the greatest height of PV panels at full rotation). However, the certificate holder will consult with the Department and ODFW to confirm the extent of fatality monitoring that should be conducted for the solar faiclity.

35 2. Raptor Nest Surveys

The objectives of raptor nest surveys are: (1) count raptor nests on the ground or
 aboveground in trees or other aboveground nest locations in the vicinity of the facility; and (2) to
 determine whether operation of the facility results in a reduction of nesting activity or nesting
 success in the local populations of the following raptor species: Swainson's hawk, golden eagle,
 ferruginous hawk, and burrowing owl.

41 The certificate holder shall conduct short term and long term monitoring around Phase 2
 42 wind turbines. Raptor nest surveys would not occur if Phase 2 is only comprised of solar
 43 generation. The investigators will use ground surveys to evaluate nest success by gathering data
- 1 on active nests, on nests with young and on young fledged. The investigators will analyze the
- 2 data as described in Section 3(c) and will share the data with state biologists.
- 3 (a) Short-Term Monitoring

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Short term monitoring will be done in two monitoring seasons. The first monitoring
season will be in the first raptor nesting season after completion of construction of the facility.
The second monitoring season will be in the fourth year after construction is completed. The
certificate holder shall provide a summary of the first-year results in the monitoring report
described in Section 5. After the second monitoring season, the investigators will analyze two
years of data compared to the baseline data.

For Raptor Species that Nest Aboveground

During each monitoring season, the investigators will conduct a minimum of one aerial and one ground survey for raptor nests in late May or early June and additional surveys as described in this section. The survey area is the area within the site boundary and a 2-mile buffer zone around the site. For the ground surveys while checking for nesting *success* (conducted within the facility site and up to a maximum of ½ mile from the facility site), nests outside the leased project boundary will be checked from an appropriate distance where feasible, depending on permission from the landowner for access.

All nests discovered during preconstruction surveys and any nests discovered during
 post-construction surveys, whether active or inactive, will be given identification numbers. Nest
 locations will be recorded on U.S. Geological Survey 7.5 minute quadrangle maps. Global
 positioning system (GPS) coordinates will be recorded for each nest. Locations of inactive nests
 will be recorded because they could become occupied during future years.

Determining nest *occupancy* may require one or two visits to each nest. Aerial surveys
 for nest occupancy will be conducted within the facility site and a 2-mile buffer. For occupied
 nests, the certificate holder will determine nesting *success* by a minimum of one ground visit to
 determine the species, number of young and young fledged within the facility site and up to ½
 mile from the facility site. "Nesting success" means that the young have successfully fledged
 (the young are independent of the core nest site).

29 <u>For Burrowing Owls</u>

If burrowing owl nest sites are discovered during pre-construction, construction, or post-30 construction, the investigators will monitor them according to the following protocol approved 31 by ODFW. This species is not easily detected during aerial raptor nest surveys.. Any nests 32 discovered during post-construction surveys, whether active or showing signs of intermittent use 33 34 by the species, will be given identification numbers. Nest locations will be recorded on U.S. Geological Survey 7.5 minute quadrangle maps. Global positioning system coordinates will be 35 recorded for each nest site. Coordinates for ancillary burrows used by one nesting pair or a group 36 of nesting pairs will also be recorded. Locations of inactive nests will be recorded because they 37 38 could become occupied during future years. The investigators shall conduct burrowing owl monitoring in the same years as the raptor 39

- 40 nest surveys described above. For occupied nests, the investigators shall determine nesting
- success by a minimum of one ground visit to determine species, number of young and young
 fledged. "Nesting success" means that the young have successfully fledged (the young may or

1 may not be independent of the core nest site). Three visits to the nest sites may be necessary to

determine outcome. Nests that cannot be monitored due to the landowner denying access will be
 checked from a distance where feasible.

If burrowing owl nests are discovered during the first year of post-construction raptor
 nest surveys (the first raptor nesting season after construction is completed), the investigators
 shall monitor those nest locations during the second year of surveys in the fourth year after
 construction is completed. Thereafter, the investigators shall monitor all known burrowing owl
 nest locations as a part of the long term raptor nest monitoring program described in Section 2(b)
 below.

10 (b) Long-Term Monitoring

In addition to the two years of post-construction raptor nest surveys described in Section 11 2(a), the investigators shall conduct long-term raptor nest surveys at 5-year intervals for the life 12 of the facility.⁵ Investigators will conduct the first long-term raptor nest survey in the first raptor 13 14 nesting season that is at least 5 years after the completion of construction and is in a year that is 15 divisible by five (i.e., 2020, 2025, 2030); and will repeat the survey at 5-year intervals thereafter. In conducting long-term surveys, the investigators will follow the same survey protocols as 16 described above in Section 2(a) unless the investigators propose alternative protocols that are 17 18 approved by the Department. In developing an alternative protocol, the investigators will consult with ODFW and will take into consideration other monitoring conducted in adjacent areas. The 19 investigators will analyze the data and report after each year of long term raptor nest surveys. 20

21 (c) Analysis

The investigators will analyze the raptor nesting data to determine whether a reduction in either nesting success or nest use has occurred in the survey area. If the analysis indicates a reduction in nesting success or nest use by Swainson's hawks, ferruginous hawks, or burrowing owls, then the certificate holder will propose appropriate mitigation for the affected species as described in Section 2(d) and will implement mitigation as approved by the Department, subject to review by the Council.

Reductions in nesting success or nest use could be due to operation of the MWPF, 28 29 operation of another wind facility in the vicinity or some other cause. The investigators shall attribute the reduction to operation of the MWPF if the wind turbine closest to the affected nest 30 site is an MWPF turbine, unless the certificate holder demonstrates, and the Department agrees, 31 that the reduction was due to a different cause. At a minimum, if the analysis shows that a 32 Swainson's hawk, ferruginous hawk or burrowing owl has abandoned a nest territory within the 33 facility site or within 1/2 mile of the facility site or has not fledged any young over two successive 34 surveys within that same area, the investigators will assume the abandonment or unsuccessful 35 fledging is due to operation of the facility unless another cause can be demonstrated 36 convincingly. 37

Given the low raptor nesting densities in the area and the presence of other wind energy
 facilities nearby, statistical power to detect a relationship between distance from an MWPF wind

⁵ As used in this plan, "life of the facility" means continuously until the facility site is restored and the site certificate is terminated in accordance with OAR 345-027-0110.

1 turbine and nesting parameters (e.g., number of fledglings per reproductive pair) will be very

2 low. Therefore, impacts may have to be judged based on trends in the data, results from other

3 wind energy facility monitoring studies and literature on what is known regarding the

4 populations in the region.

5 (d) Mitigation

If the analysis shows a reduction in nesting success or nest use, the certificate holder shall 6 7 implement mitigation if the Department determines that mitigation is appropriate. The certificate holder shall propose mitigation for the affected species in consultation with the Department and 8 9 ODFW and shall implement mitigation as approved by the Council. In proposing appropriate mitigation, the certificate holder shall advise the Department if any other wind project in the area 10 11 is obligated to provide mitigation for a reduction in raptor nesting success at the same nest site. Mitigation should be designed to benefit the affected species or contribute to overall scientific 12 knowledge and understanding of what causes nest abandonment or nest failure. Mitigation may 13 14 be designed to proceed in phases over several years. It may include, but is not limited to, 15 additional raptor nest monitoring, protection of natural nest sites from human disturbance or 16 eattle activity (preferably within the general area of the facility) or participation in research 17 projects designed to improve scientific understanding of the needs of the affected species. Mitigation may take into consideration whether the mitigation required or provided in 18 19 conjunction with other components of the Wildlife Monitoring and Mitigation Plan or Habitat 20 Mitigation Plan would also benefit the raptor species whose nesting success was adversely

21 affected.

22 **3.** Washington ground squirrel surveys

23 The certificate holder shall conduct long-term post-construction surveys to collect data on Washington ground squirrel (WGS) activity within the site boundary. Qualified professional 24 25 biologists will monitor the locations within the site boundary where WGS were detected in 26 preconstruction surveys (beginning in 2017). The survey area includes the identified burrow 27 areas and the buffer areas within 785 feet in suitable habitat. The investigators will walk standard 28 protocol-level transects twice between late March and late May and record level of use, notes on 29 natal sites, physical extent of the sites and any noticeable land use or habitat changes that may 30 have occurred since the preconstruction survey in 2017. The investigators shall report any new WGS detections but the boundaries of Category 1 habitat will not be revised from pre-31 32 construction boundaries.

The certificate holder shall conduct surveys during the year following construction and 33 every three years thereafter for the life of the facility in areas where WGS were detected within 34 the typical maximum dispersal distance of 3,281 feet (1,000 meters) of the facility. After each 35 survey, the certificate holder shall report the results to ODFW and to the Department and shall 36 37 include maps of the areas surveyed and detection locations. WGS surveys will not be conducted if there are barriers to WGS dispersal (i.e., active agriculture fields, highways, perennial 38 waterbodies) or an absence of suitable habitat corridors that would prevent the dispersal of WGS 39 40 into areas where facility components are located.

1 4.1. Wildlife Reporting and Handling System

The Wildlife Reporting and Handling System is a voluntary monitoring program for maintenance personnel to search for avian and bat casualties during operation of the facility. Maintenance personnel will be trained in the methods needed to carry out this program. This monitoring program includes the initial response, handling, and reporting of bird and bat carcasses discovered incidental to maintenance operations ("incidental finds"). This is a voluntary program and may be discounted by the certificate holder at any time.

8 During the years in which fatality monitoring occurs, if maintenance personnel discover 9 incidental finds outside the search plots for the fatality monitoring searches, the data will be 10 reported separately from fatality monitoring data. If maintenance personnel discover carcasses 11 within search plots, the data will be included in the calculation of fatality rates. The maintenance 12 personnel will notify a project biologist..

13 **5.2. Data Reporting**

14 The certificate holder will report wildlife monitoring data and analysis to the Department for each calendar year in which wildlife monitoring occurs. Monitoring data include fatality 15 monitoring program data, raptor nest survey data, WGS survey data, WGS incidental observation 16 and assessment reports and Wildlife Reporting and Handling System data. The certificate holder 17 may include the reporting of wildlife monitoring data and analysis in the annual report required 18 under OAR 345-026-0080 or submit this information as a separate document at the same time 19 the annual report is submitted. In addition, the certificate holder shall provide to the Department 20 any data or record generated in carrying out this monitoring plan upon request by the 21 Department. 22

The certificate holder shall notify USFWS and ODFW if any federal or state endangered or threatened species are killed or injured on the facility site within 48 hours of species identification.

Within 30 days after receiving the final versions of reports that are required under this plan, the Department will make the reports available to the public on its website and will specify a time in which the public may submit comments to the Department.⁶

29 6.3. Amendment of the Plan

This *Wildlife Monitoring and Mitigation Plan* may be amended from time to time by agreement of the certificate holder and the Council. Such amendments may be made without amendment of the site certificate. The Council authorizes the Department to agree to amendments to this plan and to mitigation actions that may be required under this plan. The Department shall notify the Council of all amendments and mitigation actions, and the Council retains the authority to approve, reject or modify any amendment of this plan or mitigation action agreed to by the Department.

⁶ The certificate holder may establish a Technical Advisor Committee (TAC) but is not required to do so. If the certificate holder establishes a TAC, the TAC may offer comments to the Council about the results of the monitoring required under this plan.

1 7.<u>4.</u> References

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23 Suggestions Based on Previous USFWS Recommendations to FCC Regarding WT Docket No.

24 03-187, FCC 06-164, Notice of Proposed Rulemaking, "Effects of Communication Towers on

25 Migratory Birds," Docket No. 08-61, FCC's Antenna Structure Registration Program, and

26 Service 2012 Wind Energy Guidelines.

Walston, L. J., Jr., K. E. Rollins, K. E. LaGory, K. P. Smith, and S. A. Meyers. 2016. "A
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Draft Oregon Trail Solar Facility Wildlife Monitoring and Mitigation Plan

1	This plan describes wildlife monitoring that the certificate holder shall conduct during
2	operation of Phase 2 of the Montague Oregon Trail Wind PowerSolar Facility (MWPF). ¹ This
3	plan was approved in September 2019 as part of the Energy Facility Siting Council's (EFSC)
4	Final Order on Request for Amendment 4 of the Montague Wind Power Facility site certificate
5	(Final Order on RFA4). Final Order on RFA4 approved modifications to the previously approved
6	layout and specifications of wind facility components and the addition of approximately 1,189
7	acres of solar photovoltaic energy generation equipment. In XX, 2020, the Council approved
8	Final Order on Request for Amendment 5 of the Montague Wind Power Facility site certificate
9	(Final Order on RFA5), authorizing amendment of the Montague Wind Power Facility site
10	certificate to cover only Phase 1 facility components; and, previously approved facility
11	components (Phase 2) to be allocated under original site certificates for facilities named
12	Montague Solar Facility and Oregon Trail Solar Facility.
13	The Oregon Trail Solar Facility is a 41 megawatt (MW) wind and solar photovoltaic
14	energy facility. The facility could include use of up to 1,228 acres for solar photovoltaic energy
15	generation components or up to 16 wind turbines, or any combination of equipment not to
16	exceed 41 MW, within a 13,866 acre site boundary, in northeastern Gilliam County.
17 18 19	The monitoring objectives are to determine whether the facility causes significant fatalities of birds and bats and to determine whether the facility results in a loss of habitat quality.
20 21 22 23 24	The certificate holder shall use experienced and properly trained personnel (the "investigators") to conduct the monitoring required under this plan. For all components of this plan except the Wildlife Reporting and Handling System, the certificate holder shall hire independent third-party investigators (not employees of the certificate holder) to perform monitoring tasks.
25 26	The <i>Wildlife Monitoring and Mitigation Plan</i> for the <u>MWPF-Oregon Trail Solar Facility</u> has the following components:
27	1) Fatality monitoring program including:
28	a) Definitions and methods
29	b) Removal trials
30	c) Searcher efficiency trials
31	d) Fatality monitoring search protocol
32	e) Incidental finds and injured birds
33	f) Statistical methods for fatality estimates

¹ This plan is incorporated by reference in the site certificate for the <u>MWPF-Oregon Trail Solar Facility</u> and must be understood in that context. It is not a "stand-alone" document. This plan does not contain all mitigation required of the certificate holder.

	Montague Wind PowerOregon Trail Solar Facility: Phase 2
	Wildlife Monitoring and Mitigation Plan
	[AS AMENDED JANUARY 2018XX 2020]
1	g) Mitigation
2	2) Raptor nesting surveys
3	3) Washington ground squirrel surveys
4	4) Wildlife Reporting and Handling System
5	5) Data reporting
6	Based on the results of the monitoring programs, mitigation of significant impacts may be
7	required. The selection of the mitigation actions should allow for flexibility in creating
8	appropriate responses to monitoring results that cannot be known in advance. If the Department
9	determines that mitigation is needed, the certificate holder shall propose appropriate mitigation

- actions to the Department and shall carry out mitigation actions approved by the Department,
- subject to review by the Oregon Energy Facility Council (Council).

12 1. Fatality Monitoring

13 (a) Definitions and Methods

14 <u>Seasons</u>

15 This plan uses the following dates for defining seasons:

Season	Dates
Spring Migration	March 16 to May 15
Summer/Breeding	May 16 to August 15
Fall Migration	August 16 to October 31
Winter	November 1 to March 15

16 <u>Search Plots</u>

The investigators shall conduct fatality monitoring within search plots. The certificate 17 holder, in consultation with the Oregon Department of Fish and Wildlife (ODFW), shall select 18 search plots based on a systematic sampling design with a random starting point that ensures that 19 the selected search plots are representative of the habitat conditions in different parts of the site. 20 Each search plot will contain one turbine. Search plots will be square or circular. Circular search 21 plots will be centered on the turbine location and will have a radius equal to the maximum blade 22 tip height of the turbine contained within the plot. "Maximum blade tip height" is the turbine 23 hub-height plus one-half the rotor diameter. Square search plots will be of sufficient size to 24 contain a circular search plot as described above. The certificate holder shall use the same search 25 plots for each search conducted during a monitoring year. 26

27 <u>Scheduling</u>

Fatality monitoring will begin one month after commencement of commercial operation of the facility. Subsequent monitoring years will follow the same schedule (beginning in the same calendar month in the subsequent monitoring year).

In each monitoring year, the investigators shall conduct fatality monitoring searches at the rates of frequency shown below. Over the course of one monitoring year, the investigators will conduct 16 searches, as follows:

[AS AMENDED JANUARY 2018<u>XX 2020</u>]				
Season	Frequency			
Spring Migration	2 searches per month (4 searches)			
Summer/Breeding	1 search per month (3 searches)			
Fall Migration	2 searches per month (5 searches)			
Winter	1 search per month (4 searches)			

Montague Wind PowerOregon Trail Solar Facility: Phase 2 Wildlife Monitoring and Mitigation Plan

Sample Size

2 The sample size for fatality monitoring is the number of turbines searched per monitoring year. The investigators shall conduct fatality monitoring during each monitoring year in search 3 4 plots at one-third of the turbines that are built or 50 turbines, whichever is greater. If fewer than 50 turbines are built, the certificate holder shall search all turbines. The facility is being 5 constructed in two phases (Phases 1 and 2). Phase 1 will be completed in advance of Phase 2. 6 The number of turbines constructed within both phases will be considered when determining the 7 sample size for the facility, and the turbines searched will be distributed proportionally 8 throughout the entire facility (comprising Phases 1 and 2). 9

The certificate holder may choose to build the MWPF-Oregon Trail Solar Facility using 10 turbine types in two size classes: 11

12 13

1

- Small: turbines having a rotor diameter of 82 meters (269 feet) or less •
- Large: turbines having a rotor diameter greater than 82 meters

If the final design of the MWPF-Oregon Trail Solar Facility includes both small and 14 large turbines, the certificate holder shall consult with an independent expert with experience in 15 statistical analysis of avian fatality data to determine whether it would be possible to design a 16 turbine sample with a sufficient number of turbines in each size class to allow a statistical 17 comparison of fatality rates for all birds as a group. The certificate holder shall submit the 18 expert's written analysis to the Department. If the expert's analysis shows that a comparison 19 study is possible and if the Department approves, the certificate holder shall sample the 20 appropriate number of turbines in each class and conduct the comparison study. The certificate 21 holder may choose to sample more than 50 turbines in each monitoring year, if a larger sample 22 size would allow the comparison study to be done. 23

24

Duration of Fatality Monitoring

The investigators shall perform one complete monitoring cycle during the first full year 25 26 of facility operation (Year 1). Although Phase 1 will be completed in advance of Phase 2, by the time Phase 1 has begun operating, Phase 2 will likely be under construction or about to begin 27 construction. As such, the number and nature of turbines to be constructed in Phase 2 will be 28 known at that time. The certificate holder proposes to select the sample turbines from all turbines 29 throughout the facility (Phases 1 and 2) using a systematic sampling regime with a random start. 30

Monitoring of the selected turbines in Phase 1-will begin when Phase 1 the facility 31

commences commercial operation and will continue for a full year (52 weeks). Monitoring of the 32

selected turbines in Phase 2 will begin when Phase 2 commences commercial operation and will 33

also continue for a full year. As a result of this sampling plan, Phase 1 will complete a full year 34

of monitoring in advance of Phase 2. Phase 2 will continue monitoring until it, too, has 35

completed a full year of monitoring. As a result of the construction schedule, monitoring of 36

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Montague Wind PowerOregon Trail Solar Facility: Phase 2 Wildlife Monitoring and Mitigation Plan [AS AMENDED JANUARY 2018XX 2020] 1 turbines at the facility will continue without interruption for longer than one full year and possibly for as long as two full years. 2 3 When a full year of monitoring at Phase 1-has been completed, the raw data will be compiled by the certificate holder in a memo style report, which will include any notable results 4 from the year of monitoring, and provided to the Department and ODFW. Then, when a full year 5 6 of monitoring at Phase 2 is complete, the data for both Phases 1 and 2 will be analyzed together 7 and a report prepared for the entire facility. 8 The certificate holder will report the results of monitoring to the Department and ODFW. In the evaluation, the certificate holder shall compare the results for the MWPF-Oregon Trail 9 Solar Facility with the thresholds of concern described in Section 1(g) of this plan and with 10 comparable data from other wind power facilities in the Columbia Basin, as available. If the 11 12 fatality rates for the first year of monitoring at the MWPF Oregon Trail Solar Facility do not exceed any of the thresholds of concern and are within the range of the fatality rates found at 13 14 other wind power facilities in the region, then the investigators will perform a second year of monitoring in Year 5 of operations. This may occur under two scenarios: 15 16 Monitoring at Phase 1 will begin 5 years after the first year of operation/monitoring. at Phase 1, and monitoring at Phase 2 will begin 5 years after the first year of operation/monitoring 17 at Phase 2. 18 19 -or-Monitoring at both Phases 1 and 2 will commence in Year 5 of operations at the facility 20 (Year 5 of operations at Phase 1 and Year 4 of operations at Phase 2). 21 If fatality rates for the first year of monitoring at the MWPF-Oregon Trail Solar Facility 22 exceed any of the thresholds of concern or exceed the range of fatality rates found at other wind 23 power facilities in the region, the certificate holder shall propose additional mitigation for 24 25 Department and ODFW review within 6 months after reporting the fatality rates to the Department. Alternatively, the certificate holder may opt to conduct a second year of fatality 26 monitoring immediately if the certificate holder believes that the combined results of both phases 27 for Year 1 monitoring were anomalous. If the certificate holder takes this option, the 28 29 investigators still must perform the monitoring in Year 5 of operations as described above. (b) Removal Trials 30 The objective of the removal trials is to estimate the length of time avian and bat 31 carcasses remain in the search area. Estimates of carcass removal rates will be used to adjust 32 carcass counts for removal bias. "Carcass removal" is the disappearance of a carcass from the 33 search area due to predation, scavenging or other means such as farming activity. 34 The investigators shall conduct carcass removal trials within each of the seasons defined 35 above during the first year of fatality monitoring. For each trial, the investigators shall use 10 to 36 15 carcasses of small- and large-bodied species. After the first year of fatality monitoring, the 37 investigators may reduce the number of removal trials and the number of removal trial carcasses 38

during any subsequent year of fatality monitoring, subject to the approval of the Department. The

40 investigators must show that the reduction is justified based on a comparison of the first-year

41 removal data with published removal data from nearby wind energy facilities.

The investigators shall use game birds or other legal sources of avian species as test carcasses for the removal trials, and the investigators may use carcasses found in fatality monitoring searches. The investigators shall select species with approximately the same coloration and size attributes as species found within the site boundary. If suitable trial carcasses are available, trials during the fall season will include several small brown birds to simulate bat carcasses. Legally obtained bat carcasses will be used if available.

Trial carcasses will be marked discreetly for recognition by searchers and other
personnel. Carcasses will be placed in a variety of postures to simulate a range of conditions. For
example, birds will be: (1) placed in an exposed posture (e.g., thrown over the shoulder), (2)
hidden to simulate a crippled bird (e.g., placed beneath a shrub or tuft of grass) or (3) partially
hidden. The trial carcasses will be placed randomly within the carcass removal trial plots. Trial
carcasses will be left in place until the end of the carcass removal trial.

An approximate schedule for assessing removal status is once daily for the first 4 days, 13 and on days 7, 10, 14, 21, 28 and 35. This schedule may be adjusted depending on actual carcass 14 removal rates, weather conditions and coordination with the other survey work. The condition of 15 scavenged carcasses will be documented during each assessment, and at the end of the trial all 16 traces of the carcasses will be removed from the site. Scavenger or other activity could result in 17 complete removal of all traces of a carcass in a location or distribution of feathers and carcass 18 parts to several locations. This distribution will not constitute removal if evidence of the carcass 19 20 remains within an area similar in size to a search plot and if the evidence would be discernible to a searcher during a normal survey. 21

Before beginning removal trials for any subsequent year of fatality monitoring, the certificate holder shall report the results of the first-year removal trials to the Department and ODFW. In the report, the certificate holder shall analyze whether four removal trials per year, as described above, provide sufficient data to accurately estimate adjustment factors for carcass removal. The number of removal trials may be adjusted up or down, subject to the approval of the Department.

28 (c) Searcher Efficiency Trials

The objective of searcher efficiency trials is to estimate the percentage of bird and bat fatalities that searchers are able to find. The investigators shall conduct searcher efficiency trials on the fatality monitoring search plots in both grassland/shrub-steppe and cultivated agriculture habitat types. A pooled estimate of searcher efficiency will be used to adjust carcass counts for detection bias.

The investigators shall conduct searcher efficiency trials within each of the seasons defined above during the years in which the fatality monitoring occurs. Each trial will involve approximately 4 to 15 carcasses. The searchers will not be notified of carcass placement or test dates. The investigators shall vary the number of trials per season and the number of carcasses per trial so that the searchers will not know the total number of trial carcasses being used in any trial. In total, approximately 80 carcasses will be used per year, or approximately 15 to 25 per season.

For each trial, the investigators shall use small- and large-bodied species. The investigators shall use game birds or other legal sources of avian species as test carcasses for the efficiency trials, and the investigators may use carcasses found in fatality monitoring searches.

1 The investigators shall select species with approximately the same coloration and size attributes 2 as species found within the site boundary. If suitable test carcasses are available, trials during the

fall season will include several small brown birds to simulate bat carcasses. Legally obtained bat

carcasses will be used if available. The investigators shall mark the test carcasses to differentiate
 them from other carcasses that might be found within the search plot and shall use methods

- them from other carcasses that might be found within the search plot and shall use methods
 similar to those used to mark removal test carcasses as long as the procedure is sufficiently
- similar to those used to mark removal test carcasses as long as the procedure is sufficient
 discreet and does not increase carcass visibility.
- 8 The certificate holder shall distribute trial carcasses in varied habitat in rough proportion 9 to the habitat types within the facility site. On the day of a standardized fatality monitoring 10 search (described below) but before the beginning of the search, investigators will place 11 efficiency trial carcasses randomly within search plots (one to three trial carcasses per search 12 plot) within areas to be searched. If scavengers appear attracted by placement of carcasses, the 13 carcasses will be distributed before dawn.

Efficiency trials will be spread over the entire season to incorporate effects of varying weather and vegetation growth. Carcasses will be placed in a variety of postures to simulate a range of conditions. For example, birds will be: (1) placed in an exposed posture (thrown over the shoulder), (2) hidden to simulate a crippled bird or (3) partially hidden.

18 The number and location of the efficiency trial carcasses found during the carcass search 19 will be recorded. The number of efficiency trial carcasses available for detection during each 20 trial will be determined immediately after the trial by the person responsible for distributing the 21 carcasses. Following plot searches, all traces of test carcasses will be removed from the site.

If new searchers are brought into the search team, additional searcher efficiency trials will be conducted to ensure that detection rates incorporate searcher differences. The certificate holder shall include a discussion of any changes in search personnel and any additional detection trials in the reporting required under Section 5 of this plan.

Before beginning searcher efficiency trials for any subsequent year of fatality monitoring, the certificate holder shall report the results of the first-year efficiency trials to the Department and ODFW. In the report, the certificate holder shall analyze whether the efficiency trials as described above provide sufficient data to accurately estimate adjustment factors for searcher efficiency. The number of searcher efficiency trials for any subsequent year of fatality monitoring may be adjusted up or down, subject to the approval of the Department.

32 (d) Fatality Monitoring Search Protocol

The objective of fatality monitoring is to estimate the number of bird and bat fatalities that are attributable to facility operation as an indicator of the impact of the facility on habitat quality. The goal of bird and bat fatality monitoring is to estimate fatality rates and associated variances. The investigators shall perform fatality monitoring using standardized carcass searches according to the schedule described above.

Personnel trained in proper search techniques ("the searchers") will conduct the carcass searches by walking parallel transects approximately 6 meters apart within the search plots. A searcher will walk at a rate of approximately 45 to 60 meters per minute along each transect, searching both sides out to 3 meters for casualties. Search area and speed may be adjusted by habitat type after evaluation of the first searcher efficiency trial.

Searchers shall flag all avian or bat carcasses discovered. Carcasses are defined as a complete carcass or body part, 10 or more feathers or three or more primary feathers in one location. When parts of carcasses and feathers from the same species are found within a search plot, searchers shall make note of the relative positions and assess whether or not these are from the same fatality.

6 All carcasses (avian and bat) found during the standardized carcass searches will be photographed, recorded and labeled with a unique number. Searchers shall make note of the 7 nearest two or three structures (turbine, power pole, fence, building or overhead line) and the 8 9 approximate distance from the carcass to these structures. The species and age of the carcass will be determined when possible. Searchers shall note the extent to which the carcass is intact and 10 estimate time since death. Searchers shall describe all evidence that might assist in determination 11 of cause of death, such as evidence of electrocution, vehicular strike, wire strike, predation or 12 disease. 13

The investigators shall calculate fatality rates using the statistical methods described in Section (f), except that the investigators may use different notation or methods that are mathematically equivalent with prior approval of the Department. In making these calculations, the investigators may exclude carcass data from the first search of each turbine plot (to eliminate possible counting of carcasses that were present before the turbine was operating).

The investigators shall estimate the number of avian and bat fatalities attributable to operation of the facility based on the number of avian and bat fatalities found at the facility site. All carcasses located within areas surveyed, regardless of species, will be recorded and, if possible, a cause of death determined based on blind necropsy results. If a different cause of death is not apparent, the fatality will be attributed to facility operation. The total number of avian and bat fatalities will be estimated by adjusting for removal and searcher efficiency bias.

On an annual basis, the certificate holder shall report an estimate of fatalities in eight categories: (1) all birds, (2) small birds, (3) large birds, (4) raptors, (5) grassland birds, (6) nocturnal migrants, (7) state and federally listed threatened and endangered species and State Sensitive Species listed under OAR 635-100-0040 and (8) bats. The certificate holder shall report annual fatality rates on both a per-megawatt (MW) and per-turbine basis.

30 (e) Incidental Finds and Injured Birds

The searchers might discover carcasses incidental to formal carcass searches (e.g., while 31 driving within the project area). For each incidentally discovered carcass, the searcher shall 32 33 identify, photograph, record data and collect the carcass as would be done for carcasses within the formal search sample during scheduled searches. If the incidentally discovered carcass is 34 found within a formal search plot, the fatality data will be included in the calculation of fatality 35 rates. If the incidentally discovered carcass is found outside a formal search plot, the data will be 36 reported separately. The certificate holder shall coordinate collection of incidentally discovered 37 state endangered, threatened, sensitive or other state protected species with ODFW. The 38 39 certificate holder shall coordinate incidentally discovered federally-listed endangered or threatened species and Migratory Bird Treaty Act protected avian species with USFWS. 40

		Montague Wind PowerOregon Trail Solar Facility: Phase 2 Wildlife Monitoring and Mitigation Plan			
1	The certificate holder shall contact a qualified rehabilitation specialist approved by the				
2	Department ² to respond to injured wildlife. The certificate holder shall pay costs, if any, charged for time and expenses related to care and rehabilitation of injured native birds found on the site				
4	unless the cause of injury is clearly demonstrated to be unrelated to the facility operations.				
5	(f) Statistical Methods for Fatality Estimates				
6	The estimate of the total number of wind facility-related fatalities is based on:				
7 8 9 10	(2) (3)	The observed number of carcasses found during standardized searches during the two monitoring years for which the cause of death is attributed to the facility. ³ Searcher efficiency expressed as the proportion of planted carcasses found by searchers.			
11 12 13	(4)	Removal rates expressed as the estimated average probability a carcass is expected to remain in the study area and be available for detection by the searchers during the entire survey period.			
14	Definition of	<u>TVariables</u>			
15	The followin	g variables are used in the equations below:			
16 17	Ci	the number of carcasses detected at plot i for the study period of interest (e.g., one year) for which the cause of death is either unknown or is attributed to the facility			
18	n	the number of search plots			
19 20 21	k	the number of turbines searched (includes the turbines centered within each search plot and a proportion of the number of turbines adjacent to search plots to account for the effect of adjacent turbines on the search plot buffer area)			
22	\overline{c}	the average number of carcasses observed per turbine per year			
23	S	the number of carcasses used in removal trials			
24 25	S _C	the number of carcasses in removal trials that remain in the study area after 35 days			
26	se	standard error (square of the sample variance of the mean)			
27	t_i	the time (days) a carcass remains in the study area before it is removed			
28	\overline{t}	the average time (days) a carcass remains in the study area before it is removed			
29	d	the total number of carcasses placed in searcher efficiency trials			
30	р	the estimated proportion of detectable carcasses found by searchers			
31	Ι	the average interval between searches in days			
32 33	$\hat{\pi}$	the estimated probability that a carcass is both available to be found during a search and is found			

² Approved specialists include Blue Mountain Wildlife, a wildlife rehabilitation center in Pendleton, and the Audubon Bird Care Center in Portland. The certificate holder must obtain Department approval before using other specialists.

³ If a different cause of death is not apparent, the fatality will be attributed to facility operation.

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	Montague Wind Power<u>Oregon Trail Solar</u> Facility: Phase 2		
		Wildlife Monitoring and Mitigation Plan	
		[AS AMENDED JANUARY 2018XX 2020]	
1	m_t	the estimated annual average number of fatalities per turbine per year, adjusted	
2		for removal and observer detection bias	
3	С	nameplate energy output of turbine in MW	
4	Observed Nur	mber of Carcasses	
5	The estimated	l average number of carcasses (\overline{c}) observed per turbine per year is:	

$$\overline{c} = \frac{\sum_{i=1}^{n} c_i}{k}.$$
(1)

7 Estimation of Carcass Removal

6

10

- 8 Estimates of carcass removal are used to adjust carcass counts for removal bias. Mean carcass
- 9 removal time (\bar{t}) is the average length of time a carcass remains at the site before it is removed:

$$\bar{t} = \frac{\sum_{i=1}^{s} t_i}{s - s_c} \,. \tag{2}$$

- 11 This estimator is the maximum likelihood estimator assuming the removal times follow an
- 12 exponential distribution and there is right-censoring of data. Any trial carcasses remaining at 35
- 13 days are collected, yielding censored observations at 35 days. If all trial carcasses are removed
- before the end of the trial, then s_c is 0, and \overline{t} is just the arithmetic average of the removal times. Removal rates will be estimated by carcass size (small and large), habitat type and season.

16 Estimation of Observer Detection Rates

17 Observer detection rates (i.e., searcher efficiency rates) are expressed as *p*, the proportion 18 of trial carcasses that are detected by searchers. Observer detection rates will be estimated by 19 carcass size, habitat type and season.

- 20 Estimation of Facility-Related Fatality Rates
- The estimated per turbine annual fatality rate (m_t) is calculated by:

$$m_t = \frac{\bar{c}}{\hat{\pi}},\tag{3}$$

- where $\hat{\pi}$ includes adjustments for both carcass removal (from scavenging and other means) and
- observer detection bias assuming that the carcass removal times t_i follow an exponential
- distribution. Under these assumptions, this detection probability is estimated by:

26

$$\hat{\pi} = \frac{\bar{t} \cdot p}{I} \cdot \left[\frac{\exp\left(\frac{I}{t}\right) - 1}{\exp\left(\frac{I}{t}\right) - 1 + p} \right].$$
(4)

<u>F</u>E-9

The estimated per MW annual fatality rate (m) is calculated by:

$$m = \frac{m_t}{C} \,. \tag{5}$$

The final reported estimates of m, associated standard errors and 90% confidence 3 intervals will be calculated using bootstrapping (Manly, 1997). Bootstrapping is a computer 4 simulation technique that is useful for calculating point estimates, variances, and confidence 5 intervals for complicated test statistics. For each iteration of the bootstrap, the plots will be 6 sampled with replacement, trial carcasses will be sampled with replacement, and \bar{c} , \bar{t} , p, $\hat{\pi}$ and 7 m will be calculated. A total of 5,000 bootstrap iterations will be used. The reported estimates 8 will be the means of the 5,000 bootstrap estimates. The standard deviation of the bootstrap 9 estimates is the estimated standard error. The lower 5th and upper 95th percentiles of the 5000 10 bootstrap estimates are estimates of the lower limit and upper limit of 90% confidence intervals. 11

12 Nocturnal Migrant and Bat Fatalities

Differences in observed nocturnal migrant and bat fatality rates for lit turbines, unlit
 turbines that are adjacent to lit turbines and unlit turbines that are not adjacent to lit turbines will
 be compared graphically and statistically.

16 (g) Mitigation

1

2

17 The certificate holder shall use best-available science to resolve any uncertainty in the 18 results and to determine whether the data indicate that additional mitigation should be 19 considered. The Department may require additional, targeted monitoring if the data indicate the 20 potential for significant impacts that cannot be addressed by worst-case analysis and appropriate 21 mitigation.

Mitigation may be appropriate if fatality rates exceed a "threshold of concern."⁴ For the purpose of determining whether a threshold has been exceeded, the certificate holder shall calculate the average annual fatality rates for species groups after each year of monitoring. Based on current knowledge of the species that are likely to use the habitat in the area of the facility, the following thresholds apply to the <u>MWPFOregon Trail Solar Facility</u>:

⁴ If a different cause of death is not apparent, the fatality will be attributed to facility operation.

n species in the Final Order on the Application for the Klondike III Wind Project (June 30, 2006) and for bats in the Final Order on the Application for the Biglow Canyon Wind Farm (June 30, 2006). As explained in the Klondike III order: "Although the threshold numbers provide a rough measure for deciding whether the Council should be concerned about observed fatality rates, the thresholds have a very limited scientific basis. The exceeding of a threshold, by itself, would not be a scientific indicator that operation of the facility would result in range-wide population level declines of any of the species affected. The thresholds are provided in the Wildlife Monitoring and Mitigation Plan to guide consideration of additional mitigation based on two years of monitoring data."

Species Group	Threshold of Concern (fatalities per MW)
Raptors (All eagles, hawks, falcons, and owls, including burrowing owls.)	0.09
Raptor species of special concern (Swainson's hawk, ferruginous hawk, peregrine falcon, golden eagle, bald eagle, burrowing owl and any federal threatened or endangered raptor species.)	0.06
Grassland species (All native bird species that rely on grassland habitat and are either resident species occurring year-round or species that nest in the area, excluding horned lark, burrowing owl and northern harrier.)	0.59
State sensitive avian species listed under OAR 635-100-0040 (Excluding raptors listed above.)	0.2
Bat species as a group	2.5

If the data show that a threshold of concern for a species group has been exceeded, the 1 2 certificate holder shall implement additional mitigation if the Department determines that mitigation is appropriate based on analysis of the data, consultation with ODFW and 3 consideration of any other significant information available at the time. In addition, the 4 Department may determine that mitigation is appropriate if fatality rates for individual avian or 5 6 bat species (especially State Sensitive Species) are higher than expected and at a level of biological concern. If the Department determines that mitigation is appropriate, the certificate 7 holder, in consultation with the Department and ODFW, shall propose mitigation measures 8 designed to benefit the affected species. Acceptable mitigation may include, but not limited to, 9 contributions to wildlife rehabilitators, funding of research by third parties on local raptor 10 populations, or habitat mitigation. This may take into consideration whether the mitigation 11 required or provided in conjunction with raptor nest monitoring, habitat mitigation, or other 12 components of the Wildlife Monitoring and Mitigation Plan or Habitat Mitigation Plan, would 13 also benefit the affected species. 14

The certificate holder shall implement mitigation as approved by the Department, subject to review by the Council. The Department may recommend additional, targeted data collection if the need for mitigation is unclear based on the information available at the time. The certificate holder shall implement such data collection as approved by the Council.

The certificate holder shall design mitigation to benefit the affected species group. 19 Mitigation may include, but is not limited to, protection of nesting habitat for the affected group 20 of native species through a conservation easement or similar agreement. Tracts of land that are 21 22 intact and functional for wildlife are preferable to degraded habitat areas. Preference should be given to protection of land that would otherwise be subject to development or use that would 23 diminish the wildlife value of the land. In addition, mitigation measures might include: 24 enhancement of the protected tract by weed removal and control; increasing the diversity of 25 native grasses and forbs; planting sagebrush or other shrubs; constructing and maintaining 26 artificial nest structures for raptors; improving wildfire response; and conducting or making a 27 contribution to research that will aid in understanding more about the affected species and its 28 29 conservation needs in the region.

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1 If the data show that the threshold of concern for bat species as a group has been exceeded, the certificate holder shall implement additional mitigation if the Department 2 determines that mitigation is appropriate based on analysis of the data, consultation with ODFW 3 and consideration of any other significant information available at the time. For example, if the 4 threshold for bat species as a group is exceeded, the certificate holder may contribute to Bat 5 Conservation International or to a Pacific Northwest bat conservation group to fund new or 6 7 ongoing research in the Pacific Northwest to better understand wind facility impacts to bat species and to develop possible ways to reduce impacts to the affected species. 8

Solar Array

9

In addition to wind turbines, Phase 2 may include a photovoltaic (PV) solar energy array 10 on up to 1,189 acres in Category 6 habitat within the solar micrositing area. Although publicly 11 12 available fatality studies conducted at PV solar projects are rare in the literature, those that are available have documented fatalities of passerines but raptor and bat fatalities were generally 13 14 absent. In the most recent study available, Walston et al. (2016) found the rate of bird mortality from known causes (i.e., collision with project infrastructure) at a large PV facility in central 15 California was low (0.50 birds/MW/year). In comparison, Johnson and Erickson (2011) 16 17 summarized fatality rates from 25 year-long fatality monitoring studies conducted at 23 wind-

energy facilities in the Columbia Plateau Ecoregion and found the mean number of all bird 18

(excluding raptors) mortality was 2.28 fatalities/MW/year. 19

Some risk of avian mortality occurs with most human development (ranging from single-20 family homes to large scale industrial projects), but it is unlikely that the proposed PV solar 21 22 array will result in significant impacts to birds. Known risk factors for avian collision fatalities include the height of structures, size of the facility, attributes of structures (e.g., guy wires, type 23 of lighting), as well as the type of development, siting in high-risk areas, and species at potential 24 risk. The role of these risk factors has been outlined in the USFWS guidelines for wind turbines 25 (USFWS, 2012) and communication towers (USFWS, 2013), as well as by various publications 26 in the peer reviewed literature (Gehring et al., 2009, 2011; Kerlinger et al., 2010). 27 After consideration of potential risk factors, the collision risk to birds from the facility 28

solar array infrastructure will likely be low. Most importantly, the PV array, as proposed, will be 29 located in disturbed habitat, will have only down shielded lighting, will not have guy wires, and 30 will not have any structures exceeding 15 feet (4.6 meters) in height (the greatest height of PV 31 panels at full rotation). However, the certificate holder will consult with the Department and 32

ODFW to confirm the extent of fatality monitoring that should be conducted for the solar 33 faiclity. 34

2. **Raptor Nest Surveys** 35

The objectives of raptor nest surveys are: (1) count raptor nests on the ground or 36 aboveground in trees or other aboveground nest locations in the vicinity of the facility; and (2) to 37 determine whether operation of the facility results in a reduction of nesting activity or nesting 38 39 success in the local populations of the following raptor species: Swainson's hawk, golden eagle, ferruginous hawk, and burrowing owl. 40

41 The certificate holder shall conduct short-term and long-term monitoring around Phase 2 wind turbines. Raptor nest surveys would not occur if Phase 2 is only comprised of solar 42 generation. The investigators will use ground surveys to evaluate nest success by gathering data 43 **MONTAGUE WIND POWEROREGON TRAIL SOLAR FACILITY** FINAL ORDER – ATTACHMENT FE

on active nests, on nests with young and on young fledged. The investigators will analyze the
data as described in Section 3(c) and will share the data with state biologists.

3 (a) Short-Term Monitoring

Short-term monitoring will be done in two monitoring seasons. The first monitoring
season will be in the first raptor nesting season after completion of construction of the facility.
The second monitoring season will be in the fourth year after construction is completed. The
certificate holder shall provide a summary of the first-year results in the monitoring report
described in Section 5. After the second monitoring season, the investigators will analyze two
years of data compared to the baseline data.

10 For Raptor Species that Nest Aboveground

During each monitoring season, the investigators will conduct a minimum of one aerial and one ground survey for raptor nests in late May or early June and additional surveys as described in this section. The survey area is the area within the site boundary and a 2-mile buffer zone around the site. For the ground surveys while checking for nesting *success* (conducted within the facility site and up to a maximum of ½ mile from the facility site), nests outside the leased project boundary will be checked from an appropriate distance where feasible, depending on permission from the landowner for access.

All nests discovered during preconstruction surveys and any nests discovered during post-construction surveys, whether active or inactive, will be given identification numbers. Nest locations will be recorded on U.S. Geological Survey 7.5-minute quadrangle maps. Global positioning system (GPS) coordinates will be recorded for each nest. Locations of inactive nests will be recorded because they could become occupied during future years.

Determining nest *occupancy* may require one or two visits to each nest. Aerial surveys for nest occupancy will be conducted within the facility site and a 2-mile buffer. For occupied nests, the certificate holder will determine nesting *success* by a minimum of one ground visit to determine the species, number of young and young fledged within the facility site and up to $\frac{1}{2}$ mile from the facility site. "Nesting success" means that the young have successfully fledged (the young are independent of the core nest site).

29 For Burrowing Owls

If burrowing owl nest sites are discovered during pre-construction, construction, or post-30 construction, the investigators will monitor them according to the following protocol approved 31 by ODFW. This species is not easily detected during aerial raptor nest surveys. Any nests 32 discovered during post-construction surveys, whether active or showing signs of intermittent use 33 by the species, will be given identification numbers. Nest locations will be recorded on U.S. 34 Geological Survey 7.5-minute quadrangle maps. Global positioning system coordinates will be 35 recorded for each nest site. Coordinates for ancillary burrows used by one nesting pair or a group 36 of nesting pairs will also be recorded. Locations of inactive nests will be recorded because they 37 could become occupied during future years. 38

The investigators shall conduct burrowing owl monitoring in the same years as the raptor nest surveys described above. For occupied nests, the investigators shall determine nesting *success* by a minimum of one ground visit to determine species, number of young and young fledged. "Nesting success" means that the young have successfully fledged (the young may or

may not be independent of the core nest site). Three visits to the nest sites may be necessary to
determine outcome. Nests that cannot be monitored due to the landowner denying access will be
checked from a distance where feasible.

If burrowing owl nests are discovered during the first year of post-construction raptor nest surveys (the first raptor nesting season after construction is completed), the investigators shall monitor those nest locations during the second year of surveys in the fourth year after construction is completed. Thereafter, the investigators shall monitor all known burrowing owl nest locations as a part of the long-term raptor nest monitoring program described in Section 2(b) below.

10 (b) Long-Term Monitoring

In addition to the two years of post-construction raptor nest surveys described in Section 11 2(a), the investigators shall conduct long-term raptor nest surveys at 5-year intervals for the life 12 of the facility.⁵ Investigators will conduct the first long-term raptor nest survey in the first raptor 13 nesting season that is at least 5 years after the completion of construction and is in a year that is 14 divisible by five (i.e., 2020, 2025, 2030); and will repeat the survey at 5-year intervals thereafter. 15 In conducting long-term surveys, the investigators will follow the same survey protocols as 16 described above in Section 2(a) unless the investigators propose alternative protocols that are 17 approved by the Department. In developing an alternative protocol, the investigators will consult 18 with ODFW and will take into consideration other monitoring conducted in adjacent areas. The 19 investigators will analyze the data and report after each year of long-term raptor nest surveys. 20

21 (c) Analysis

The investigators will analyze the raptor nesting data to determine whether a reduction in either nesting success or nest use has occurred in the survey area. If the analysis indicates a reduction in nesting success or nest use by Swainson's hawks, ferruginous hawks, or burrowing owls, then the certificate holder will propose appropriate mitigation for the affected species as described in Section 2(d) and will implement mitigation as approved by the Department, subject to review by the Council.

Reductions in nesting success or nest use could be due to operation of the MWPFOregon 28 Trail Solar Facility, operation of another wind facility in the vicinity or some other cause. The 29 investigators shall attribute the reduction to operation of the MWPF Oregon Trail Solar Facility 30 if the wind turbine closest to the affected nest site is an MWPF-Oregon Trail Solar Facility 31 turbine, unless the certificate holder demonstrates, and the Department agrees, that the reduction 32 was due to a different cause. At a minimum, if the analysis shows that a Swainson's hawk, 33 ferruginous hawk or burrowing owl has abandoned a nest territory within the facility site or 34 within ¹/₂ mile of the facility site or has not fledged any young over two successive surveys 35 within that same area, the investigators will assume the abandonment or unsuccessful fledging is 36 due to operation of the facility unless another cause can be demonstrated convincingly. 37

Given the low raptor nesting densities in the area and the presence of other wind energy
 facilities nearby, statistical power to detect a relationship between distance from an MWPF
 Oregon Trail Solar Facility wind turbine and nesting parameters (e.g., number of fledglings per

⁵ As used in this plan, "life of the facility" means continuously until the facility site is restored and the site certificate is terminated in accordance with OAR 345-027-0110.

1 reproductive pair) will be very low. Therefore, impacts may have to be judged based on trends in

2 the data, results from other wind energy facility monitoring studies and literature on what is

3 known regarding the populations in the region.

4 (d) Mitigation

If the analysis shows a reduction in nesting success or nest use, the certificate holder shall 5 implement mitigation if the Department determines that mitigation is appropriate. The certificate 6 holder shall propose mitigation for the affected species in consultation with the Department and 7 ODFW and shall implement mitigation as approved by the Council. In proposing appropriate 8 mitigation, the certificate holder shall advise the Department if any other wind project in the area 9 10 is obligated to provide mitigation for a reduction in raptor nesting success at the same nest site. Mitigation should be designed to benefit the affected species or contribute to overall scientific 11 12 knowledge and understanding of what causes nest abandonment or nest failure. Mitigation may be designed to proceed in phases over several years. It may include, but is not limited to, 13 additional raptor nest monitoring, protection of natural nest sites from human disturbance or 14 cattle activity (preferably within the general area of the facility) or participation in research 15 16 projects designed to improve scientific understanding of the needs of the affected species. Mitigation may take into consideration whether the mitigation required or provided in 17 conjunction with other components of the Wildlife Monitoring and Mitigation Plan or Habitat 18 Mitigation Plan would also benefit the raptor species whose nesting success was adversely 19

20 affected.

21 **3.** Washington ground squirrel surveys

The certificate holder shall conduct long-term post-construction surveys to collect data on 22 Washington ground squirrel (WGS) activity within the site boundary. Qualified professional 23 biologists will monitor the locations within the site boundary where WGS were detected in 24 25 preconstruction surveys (beginning in 2017). The survey area includes the identified burrow areas and the buffer areas within 785 feet in suitable habitat. The investigators will walk standard 26 protocol-level transects twice between late March and late May and record level of use, notes on 27 natal sites, physical extent of the sites and any noticeable land use or habitat changes that may 28 29 have occurred since the preconstruction survey in 2017. The investigators shall report any new WGS detections but the boundaries of Category 1 habitat will not be revised from pre-30 31 construction boundaries.

The certificate holder shall conduct surveys during the year following construction and 32 33 every three years thereafter for the life of the facility in areas where WGS were detected within the typical maximum dispersal distance of 3,281 feet (1,000 meters) of the facility. After each 34 survey, the certificate holder shall report the results to ODFW and to the Department and shall 35 include maps of the areas surveyed and detection locations. WGS surveys will not be conducted 36 if there are barriers to WGS dispersal (i.e., active agriculture fields, highways, perennial 37 waterbodies) or an absence of suitable habitat corridors that would prevent the dispersal of WGS 38 39 into areas where facility components are located.

40 4. Wildlife Reporting and Handling System

The Wildlife Reporting and Handling System is a voluntary monitoring program for maintenance personnel to search for avian and bat casualties during operation of the facility.

1 Maintenance personnel will be trained in the methods needed to carry out this program. This

2 monitoring program includes the initial response, handling, and reporting of bird and bat

3 carcasses discovered incidental to maintenance operations ("incidental finds"). This is a

4 voluntary program and may be discounted by the certificate holder at any time.

5 During the years in which fatality monitoring occurs, if maintenance personnel discover 6 incidental finds outside the search plots for the fatality monitoring searches, the data will be 7 reported separately from fatality monitoring data. If maintenance personnel discover carcasses 8 within search plots, the data will be included in the calculation of fatality rates. The maintenance 9 personnel will notify a project biologist..

10 5. Data Reporting

The certificate holder will report wildlife monitoring data and analysis to the Department 11 for each calendar year in which wildlife monitoring occurs. Monitoring data include fatality 12 monitoring program data, raptor nest survey data, WGS survey data, WGS incidental observation 13 and assessment reports and Wildlife Reporting and Handling System data. The certificate holder 14 may include the reporting of wildlife monitoring data and analysis in the annual report required 15 under OAR 345-026-0080 or submit this information as a separate document at the same time 16 the annual report is submitted. In addition, the certificate holder shall provide to the Department 17 18 any data or record generated in carrying out this monitoring plan upon request by the Department. 19

The certificate holder shall notify USFWS and ODFW if any federal or state endangered or threatened species are killed or injured on the facility site within 48 hours of species identification.

Within 30 days after receiving the final versions of reports that are required under this plan, the Department will make the reports available to the public on its website and will specify a time in which the public may submit comments to the Department.⁶

26 6. Amendment of the Plan

This *Wildlife Monitoring and Mitigation Plan* may be amended from time to time by agreement of the certificate holder and the Council. Such amendments may be made without amendment of the site certificate. The Council authorizes the Department to agree to amendments to this plan and to mitigation actions that may be required under this plan. The Department shall notify the Council of all amendments and mitigation actions, and the Council retains the authority to approve, reject or modify any amendment of this plan or mitigation action agreed to by the Department.

34 7. References

Gehring, J., P. Kerlinger, and A. M. Manville, II. 2009. "Communication Towers, Lights,
 and Birds: Successful Methods of Reducing the Frequency of Avian Collisions." *Ecological Applications* 19(2): 505-514.

⁶ The certificate holder may establish a Technical Advisor Committee (TAC) but is not required to do so. If the certificate holder establishes a TAC, the TAC may offer comments to the Council about the results of the monitoring required under this plan.

Gehring, J., P. Kerlinger, and A. M. Manville, II. 2011. "The Role of Tower Height and 1 Guy Wires on Avian Collisions with Communication Towers." The Journal of Wildlife 2 Management 75(4): 848-855. 3 Johnson, G. and W. P. Erickson. 2011. Avian, Bat and Habitat Cumulative Impacts 4 Associated with Wind Energy Development in the Columbia Plateau Ecoregion of Eastern 5 Washington and Oregon. Prepared by Western EcoSystems Technology, Inc., for Klickitat 6 County Planning Department. May 18. 7 https://www.fws.gov/southwest/es/documents/R2ES/LitCited/LPC 2012/Johnson and Erickson 8 9 2011.pdf. Kerlinger, P., J. L. Gehring, W. P. Erickson, R. Curry, A. Jain, and J. Guarnaccia. 2010. 10 "Night Migrant Fatalities and Obstruction Lighting at Wind Turbines in North America." Wilson 11 12 Journal of Ornithology 122(4): 744-754. 13 Manly, B. F. J. 1997. Randomization, Bootstrap, and Monte Carlo Methods in Biology. 2nd edition. New York: Chapman and Hall. 14 U.S. Fish and Wildlife Service (USFWS). 2012. U.S. Fish and Wildlife Service Land-15 Based Wind Energy Guidelines. UOMB Control No. 1018-0148. 16 17 U.S. Fish and Wildlife Service (USFWS). 2013. Revised Guidelines for Communication Tower Design, Siting, Construction, Operation, Retrofitting, and Decommissioning --18 Suggestions Based on Previous USFWS Recommendations to FCC Regarding WT Docket No. 19 03-187, FCC 06-164, Notice of Proposed Rulemaking, "Effects of Communication Towers on 20 Migratory Birds," Docket No. 08-61, FCC's Antenna Structure Registration Program, and 21 Service 2012 Wind Energy Guidelines. 22 Walston, L. J., Jr., K. E. Rollins, K. E. LaGory, K. P. Smith, and S. A. Meyers. 2016. "A 23 preliminary assessment of avian mortality at utility-scale solar energy facilities in the United 24

25 States." *Renewable Energy* 92: 405–414.

Attachment H Cultural, Historic and Archeological Resource Mitigation Plans

Inadvertent Discovery Plan (Montague Wind, Montague Solar and Oregon Trail Solar) Draft Amended Montague Solar Facility Historic Properties Management Plan Inadvertent Discovery Plan (Montague Wind, Montague Solar and Oregon Trail Solar)

Inadvertent Discovery Plan

PLAN AND PROCEDURES FOR THE INADVERTENT DISCOVERY OF CULTURAL RESOURCES AND HUMAN SKELETAL REMAINS FOR THE MONTAGUE WIND POWER FACILITY, GILLIAM COUNTY, OREGON

1.0 Introduction

Montague Wind Power Facility, LLC (Montague) proposes to construct the Montague Wind Power Facility (Montague Facility) in Gilliam County, Oregon. This Inadvertent Discovery Plan outlines procedures to follow, in accordance with state and federal laws, if cultural resources or human remains are discovered during construction.

2.0 Recognizing Cultural Resources

A cultural resource is an item of historical, traditional, or cultural importance. The item could be prehistoric or historic. Examples are as follows:

- A multispecies accumulation of shell (shell-midden) with associated bone, stone, antler, or wood artifacts, burned rocks, or charcoal
- Bones that appear to be human or animal bones associated with a shell-midden (i.e., with associated artifacts or cooking features)
- An area of charcoal or very dark, stained soil with associated artifacts
- Artifacts made of chipped or ground stone (i.e., an arrowhead, adze, or metate) or an accumulation (more than one) of cryptocrystalline stone flakes (lithic debitage)
- Items made of botanical materials
- Clusters of tin cans or bottles, agricultural, or military equipment that appears to be older than 50 years

3.0 Onsite Responsibilities

<u>STEP 1: STOP WORK IMMEDIATELY</u>. If the contractor or subcontractor believes that he or she has uncovered any cultural resource during construction of the project, all work adjacent to the discovery must stop. The discovery location should not be left unsecured at any time.

<u>STEP 2: NOTIFY CONSTRUCTION PROJECT MANAGEMENT IMMEDIATELY</u>. Contact the construction project manager or cultural resources specialist for the Montague Facility, as listed below.

Construction Project Manager

To be determined.

Cultural Resources Specialist

If the construction project manager cannot be reached, contact one of the designated Cultural Resources Specialists:

David Sheldon CH2M Cell: (360) 219-6953 david.sheldon@Jacobs.com Matt Steinkamp CH2M Cell: (503) 358-9499 matt.steinkamp@jacobs.com

<u>STEP 3: NOTIFY THE STATE HISTORIC PRESERVATION OFFICE IMMEDIATELY</u>. The Montague Facility construction project manager or cultural resources specialist will contact the Oregon State Historic Preservation Office (SHPO) immediately.

Note: If human remains are encountered, treat them with dignity and respect at all times. Cover the remains with a tarp or other materials (not soil or rocks) for temporary protection in place and to shield them from being photographed. Do not call 911 or speak with the media.

<u>STEP 4: PARTICIPATE IN CONSULTATION AND DOCUMENTATION</u>. The Montague Facility construction project manager will participate in consultations with Oregon SHPO and affiliated Tribes. After consultation, the construction project manager will complete a written plan of action describing the disposition of cultural resources pursuant to 43 *Code of Federal Regulations* (CFR) Part 10 and will execute his or her prescribed duties within that plan of action.

4.0 Further Contacts and Consultations

Construction Project Manager

The Montague Facility construction project manager's responsibilities as follows:

- <u>Secure the Site</u>: The construction project manager is responsible for taking appropriate steps to
 protect and secure the discovery site. All work will stop in an area adequate to provide for the total
 security, protection, and integrity of the resource. Vehicles, equipment, and unauthorized personnel
 will not be permitted to traverse the discovery site. Work in the immediate area will not resume
 until treatment of the discovery has been completed following provisions for treating
 archaeological/cultural material in consultation with the affiliated Tribe(s).
- <u>Direct Construction Elsewhere Onsite</u>: The construction project manager will direct construction to resume away from cultural resources where appropriate and in communication with the affiliated Tribe(s).
- <u>Contact Project Cultural Resources Specialist</u>: If the cultural resources specialist has not yet been reached in earlier attempts, the construction project manager will do so.

Cultural Resources Specialist

The cultural resources specialist's responsibilities are as follows:

- <u>Notify Tribes</u>: If not already notified, the cultural resources specialist will notify the Tribe(s) of the discovery.
- <u>Identify Find</u>: The construction project manager will consult with the Tribes and will ensure that a qualified individual examines the find to determine if it is a cultural resource, as follows:
 - If it is determined to not be a cultural resource, work may proceed with no further delay.
 - If it is determined to be a cultural resource, the cultural resources specialist will send a certified letter to the Tribal Historic Preservation Offices, notifying them that a cultural resource has been discovered and requesting further consultation.
 - If the find may be human remains or funerary objects, the cultural resources specialist will follow the procedures described in Section 5.0.

- Notify State Agencies: The construction project manager will contact Oregon SHPO.
- <u>Formulate Plan</u>: The construction project manager, affiliated Tribes, and Oregon SHPO will consult to determine a plan for disposition of the cultural resources.

Any required excavation or removal of cultural resources will be carried out under the requirements of 43 CFR Part 10.3 and 16 *United States Code* 470 aa, and will require a permit from the Oregon SHPO. The activity that resulted in the inadvertent discovery may resume thirty (30) days after certification of receipt of notification.

Oregon Historic Preservation Office

State Archaeologist Dennis Griffin, Ph.D. e-mail: Dennis.Griffin@oregon.gov (503) 986-0674

-or-

Assistant State Archaeologist John Pouley E-mail: john.pouley@oregon.gov (503) 986-0675

Tribes

Confederated Tribes of the Warm Springs Reservation of Oregon Robert Brunoe, Tribal Historic Preservation Officer THPO@ctwsbnr.org PO Box 460 Warm Springs, Oregon 97761 (541) 553-3555

Confederated Tribes of the Umatilla Indian Reservation Teara Farrow Ferman, Cultural Resources <u>tearafarrowferman@ctuir.com</u> 46411 Timine Way Pendleton, OR 97801 (541) 429-7230

5.0 Special Procedures for the Discovery of Human Skeletal Material

Any human skeletal remains will at all times be treated with the utmost dignity and respect. The attached document titled *Tribal Position Paper on the Treatment of Human Remains* (Government to Government Cultural Resources Cluster Group, September 2006) describes the appropriate protocol on the treatment of Native American human remains.

<u>STEP 1: STOP WORK</u>. In the event that human remains are discovered, stop all work in the area and secure the site.

<u>STEP 2: NOTIFY APPROPRIATE PARTIES</u>. Notify the construction project manager, law enforcement, and the coroner, immediately. The coroner (with the assistance of law enforcement personnel) will determine if the remains are human and whether the discovery site constitutes a crime scene, and will notify Oregon SHPO and the Tribes.

• Medical Examiner, Gilliam County

To be determined

• Gilliam County Sheriff's Department

221 S. Oregon Street Condon, Oregon 97823 (541) 384-2851

<u>STEP 3: PROTECT THE REMAINS</u>. There shall be no photography or drawings and sketches made of the human remains or funerary objects found with the human remains without written permission signed by the affiliated Tribes. Cover the remains with a tarp or other materials (not soil or rocks) for temporary protection in place and to shield them from being photographed. Remains should not be removed from the site prior to identifying the remains as Native American or not. If the remains are determined to be Native American, final disposition will be decided through consultation with the affiliated Tribes, Oregon SHPO, and Montague.

STEP 4: CONSULTATION. If the coroner determines the remains are nonforensic, and if it is determined that the remains constitute a cultural resource, the construction project manager or appointed representative will participate in consultation with the affiliated Tribes and Oregon SHPO. The construction project manager or appointed representative will complete a written plan of action describing the disposition of cultural resources pursuant to 43 CFR Part 10 and will execute its prescribed duties within that plan of action. If the remains are determined to be Native American, final disposition will be decided through consultation with the affiliated Tribes, Oregon SHPO, and Montague. If the medical examiner is not able to make a determination of Native American, a qualified forensic anthropologist from the State, Tribe, or contracted archaeological firm will need to be consulted for final determination.

6.0 Proceeding with Construction

Project construction outside the discovery location may continue while documentation and assessment of the cultural resources proceed. The construction project manager and a qualified archaeologist or Tribal representative must determine the boundaries of the discovery location. Construction may continue at the discovery location only after the process outlined in this plan is followed and the Oregon SHPO (and the federal agencies, if any) determines that compliance with state and federal laws is complete.

Inadvertent Discovery Plan

PLAN AND PROCEDURES FOR THE INADVERTENT DISCOVERY OF CULTURAL RESOURCES AND HUMAN SKELETAL REMAINS FOR THE MONTAGUE WIND POWERSOLAR FACILITY, GILLIAM COUNTY, OREGON

1.0 Introduction

Montague Wind Power FacilitySolar, LLC (Montague) proposes to construct the Montague Wind-PowerSolar Facility (Montague Facility) in Gilliam County, Oregon. This Inadvertent Discovery Plan outlines procedures to follow, in accordance with state and federal laws, if cultural resources or human remains are discovered during construction.

2.0 Recognizing Cultural Resources

A cultural resource is an item of historical, traditional, or cultural importance. The item could be prehistoric or historic. Examples are as follows:

- A multispecies accumulation of shell (shell-midden) with associated bone, stone, antler, or wood artifacts, burned rocks, or charcoal
- Bones that appear to be human or animal bones associated with a shell-midden (i.e., with associated artifacts or cooking features)
- An area of charcoal or very dark, stained soil with associated artifacts
- Artifacts made of chipped or ground stone (i.e., an arrowhead, adze, or metate) or an accumulation (more than one) of cryptocrystalline stone flakes (lithic debitage)
- Items made of botanical materials
- Clusters of tin cans or bottles, agricultural, or military equipment that appears to be older than 50 years

3.0 Onsite Responsibilities

<u>STEP 1: STOP WORK IMMEDIATELY</u>. If the contractor or subcontractor believes that he or she has uncovered any cultural resource during construction of the project, all work adjacent to the discovery must stop. The discovery location should not be left unsecured at any time.

<u>STEP 2: NOTIFY CONSTRUCTION PROJECT MANAGEMENT IMMEDIATELY</u>. Contact the construction project manager or cultural resources specialist for the Montague Facility, as listed below.

Construction Project Manager

To be determined.

Cultural Resources Specialist

If the construction project manager cannot be reached, contact one of the designated Cultural Resources Specialists:

David Sheldon CH2M Cell: (360) 219-6953 david.sheldon@Jacobs.com Matt Steinkamp CH2M Cell: (503) 358-9499 matt.steinkamp@jacobs.com

<u>STEP 3: NOTIFY THE STATE HISTORIC PRESERVATION OFFICE IMMEDIATELY</u>. The Montague <u>Solar</u> Facility construction project manager or cultural resources specialist will contact the Oregon State Historic Preservation Office (SHPO) immediately.

Note: If human remains are encountered, treat them with dignity and respect at all times. Cover the remains with a tarp or other materials (not soil or rocks) for temporary protection in place and to shield them from being photographed. Do not call 911 or speak with the media.

<u>STEP 4: PARTICIPATE IN CONSULTATION AND DOCUMENTATION</u>. The Montague <u>Solar</u> Facility construction project manager will participate in consultations with Oregon SHPO and affiliated Tribes. After consultation, the construction project manager will complete a written plan of action describing the disposition of cultural resources pursuant to 43 *Code of Federal Regulations* (CFR) Part 10 and will execute his or her prescribed duties within that plan of action.

4.0 Further Contacts and Consultations

Construction Project Manager

The Montague Facility construction project manager's responsibilities as follows:

- <u>Secure the Site</u>: The construction project manager is responsible for taking appropriate steps to
 protect and secure the discovery site. All work will stop in an area adequate to provide for the total
 security, protection, and integrity of the resource. Vehicles, equipment, and unauthorized personnel
 will not be permitted to traverse the discovery site. Work in the immediate area will not resume
 until treatment of the discovery has been completed following provisions for treating
 archaeological/cultural material in consultation with the affiliated Tribe(s).
- <u>Direct Construction Elsewhere Onsite</u>: The construction project manager will direct construction to resume away from cultural resources where appropriate and in communication with the affiliated Tribe(s).
- <u>Contact Project Cultural Resources Specialist</u>: If the cultural resources specialist has not yet been reached in earlier attempts, the construction project manager will do so.

Cultural Resources Specialist

The cultural resources specialist's responsibilities are as follows:

- <u>Notify Tribes</u>: If not already notified, the cultural resources specialist will notify the Tribe(s) of the discovery.
- <u>Identify Find</u>: The construction project manager will consult with the Tribes and will ensure that a qualified individual examines the find to determine if it is a cultural resource, as follows:
 - If it is determined to not be a cultural resource, work may proceed with no further delay.
 - If it is determined to be a cultural resource, the cultural resources specialist will send a certified letter to the Tribal Historic Preservation Offices, notifying them that a cultural resource has been discovered and requesting further consultation.
 - If the find may be human remains or funerary objects, the cultural resources specialist will follow the procedures described in Section 5.0.

- Notify State Agencies: The construction project manager will contact Oregon SHPO.
- <u>Formulate Plan</u>: The construction project manager, affiliated Tribes, and Oregon SHPO will consult to determine a plan for disposition of the cultural resources.

Any required excavation or removal of cultural resources will be carried out under the requirements of 43 CFR Part 10.3 and 16 *United States Code* 470 aa, and will require a permit from the Oregon SHPO. The activity that resulted in the inadvertent discovery may resume thirty (30) days after certification of receipt of notification.

Oregon Historic Preservation Office

State Archaeologist Dennis Griffin, Ph.D. e-mail: Dennis.Griffin@oregon.gov (503) 986-0674

-or-

Assistant State Archaeologist John Pouley E-mail: john.pouley@oregon.gov (503) 986-0675

Tribes

Confederated Tribes of the Warm Springs Reservation of Oregon Robert Brunoe, Tribal Historic Preservation Officer THPO@ctwsbnr.org PO Box 460 Warm Springs, Oregon 97761 (541) 553-3555

Confederated Tribes of the Umatilla Indian Reservation Teara Farrow Ferman, Cultural Resources <u>tearafarrowferman@ctuir.com</u> 46411 Timine Way Pendleton, OR 97801 (541) 429-7230

5.0 Special Procedures for the Discovery of Human Skeletal Material

Any human skeletal remains will at all times be treated with the utmost dignity and respect. The attached document titled *Tribal Position Paper on the Treatment of Human Remains* (Government to Government Cultural Resources Cluster Group, September 2006) describes the appropriate protocol on the treatment of Native American human remains.

<u>STEP 1: STOP WORK</u>. In the event that human remains are discovered, stop all work in the area and secure the site.

<u>STEP 2: NOTIFY APPROPRIATE PARTIES</u>. Notify the construction project manager, law enforcement, and the coroner, immediately. The coroner (with the assistance of law enforcement personnel) will determine if the remains are human and whether the discovery site constitutes a crime scene, and will notify Oregon SHPO and the Tribes.

• Medical Examiner, Gilliam County

To be determined

• Gilliam County Sheriff's Department

221 S. Oregon Street Condon, Oregon 97823 (541) 384-2851

<u>STEP 3: PROTECT THE REMAINS</u>. There shall be no photography or drawings and sketches made of the human remains or funerary objects found with the human remains without written permission signed by the affiliated Tribes. Cover the remains with a tarp or other materials (not soil or rocks) for temporary protection in place and to shield them from being photographed. Remains should not be removed from the site prior to identifying the remains as Native American or not. If the remains are determined to be Native American, final disposition will be decided through consultation with the affiliated Tribes, Oregon SHPO, and Montague.

STEP 4: CONSULTATION. If the coroner determines the remains are nonforensic, and if it is determined that the remains constitute a cultural resource, the construction project manager or appointed representative will participate in consultation with the affiliated Tribes and Oregon SHPO. The construction project manager or appointed representative will complete a written plan of action describing the disposition of cultural resources pursuant to 43 CFR Part 10 and will execute its prescribed duties within that plan of action. If the remains are determined to be Native American, final disposition will be decided through consultation with the affiliated Tribes, Oregon SHPO, and Montague. If the medical examiner is not able to make a determination of Native American, a qualified forensic anthropologist from the State, Tribe, or contracted archaeological firm will need to be consulted for final determination.

6.0 Proceeding with Construction

Project construction outside the discovery location may continue while documentation and assessment of the cultural resources proceed. The construction project manager and a qualified archaeologist or Tribal representative must determine the boundaries of the discovery location. Construction may continue at the discovery location only after the process outlined in this plan is followed and the Oregon SHPO (and the federal agencies, if any) determines that compliance with state and federal laws is complete.

Inadvertent Discovery Plan

PLAN AND PROCEDURES FOR THE INADVERTENT DISCOVERY OF CULTURAL RESOURCES AND HUMAN SKELETAL REMAINS FOR THE MONTAGUE WIND POWEROREGON TRAIL SOLAR FACILITY, GILLIAM COUNTY, OREGON

1.0 Introduction

Montague Wind Power FacilityOregon Trail Solar, LLC (Montaguecertificate holder) proposes to construct the Montague Wind PowerOregon Trail Solar Facility (Montague Facility) in Gilliam County, Oregon. This Inadvertent Discovery Plan outlines procedures to follow, in accordance with state and federal laws, if cultural resources or human remains are discovered during construction.

2.0 Recognizing Cultural Resources

A cultural resource is an item of historical, traditional, or cultural importance. The item could be prehistoric or historic. Examples are as follows:

- A multispecies accumulation of shell (shell-midden) with associated bone, stone, antler, or wood artifacts, burned rocks, or charcoal
- Bones that appear to be human or animal bones associated with a shell-midden (i.e., with associated artifacts or cooking features)
- An area of charcoal or very dark, stained soil with associated artifacts
- Artifacts made of chipped or ground stone (i.e., an arrowhead, adze, or metate) or an accumulation (more than one) of cryptocrystalline stone flakes (lithic debitage)
- Items made of botanical materials
- Clusters of tin cans or bottles, agricultural, or military equipment that appears to be older than 50 years

3.0 Onsite Responsibilities

<u>STEP 1: STOP WORK IMMEDIATELY</u>. If the contractor or subcontractor believes that he or she has uncovered any cultural resource during construction of the project, all work adjacent to the discovery must stop. The discovery location should not be left unsecured at any time.

<u>STEP 2: NOTIFY CONSTRUCTION PROJECT MANAGEMENT IMMEDIATELY</u>. Contact the construction project manager or cultural resources specialist for the <u>Montague FacilityOregon Trail Solar Facility</u>, as listed below.

Construction Project Manager

To be determined.

Cultural Resources Specialist

If the construction project manager cannot be reached, contact one of the designated Cultural Resources Specialists:

David Sheldon CH2M Cell: (360) 219-6953 <u>david.sheldon@Jacobs.com</u> PR0911171707PDX Matt Steinkamp CH2M Cell: (503) 358-9499 matt.steinkamp@jacobs.com

STEP 3: NOTIFY THE STATE HISTORIC PRESERVATION OFFICE IMMEDIATELY. The Montague FacilityOregon Trail Solar Facility construction project manager or cultural resources specialist will contact the Oregon State Historic Preservation Office (SHPO) immediately.

Note: If human remains are encountered, treat them with dignity and respect at all times. Cover the remains with a tarp or other materials (not soil or rocks) for temporary protection in place and to shield them from being photographed. Do not call 911 or speak with the media.

<u>STEP 4: PARTICIPATE IN CONSULTATION AND DOCUMENTATION</u>. The <u>Montague Oregon Trail Solar</u> Facility construction project manager will participate in consultations with Oregon SHPO and affiliated Tribes. After consultation, the construction project manager will complete a written plan of action describing the disposition of cultural resources pursuant to 43 *Code of Federal Regulations* (CFR) Part 10 and will execute his or her prescribed duties within that plan of action.

4.0 Further Contacts and Consultations

Construction Project Manager

The Montague Oregon Trail Solar Facility construction project manager's responsibilities as follows:

- <u>Secure the Site</u>: The construction project manager is responsible for taking appropriate steps to
 protect and secure the discovery site. All work will stop in an area adequate to provide for the total
 security, protection, and integrity of the resource. Vehicles, equipment, and unauthorized personnel
 will not be permitted to traverse the discovery site. Work in the immediate area will not resume
 until treatment of the discovery has been completed following provisions for treating
 archaeological/cultural material in consultation with the affiliated Tribe(s).
- <u>Direct Construction Elsewhere Onsite</u>: The construction project manager will direct construction to resume away from cultural resources where appropriate and in communication with the affiliated Tribe(s).
- <u>Contact Project Cultural Resources Specialist</u>: If the cultural resources specialist has not yet been reached in earlier attempts, the construction project manager will do so.

Cultural Resources Specialist

The cultural resources specialist's responsibilities are as follows:

- <u>Notify Tribes</u>: If not already notified, the cultural resources specialist will notify the Tribe(s) of the discovery.
- <u>Identify Find</u>: The construction project manager will consult with the Tribes and will ensure that a qualified individual examines the find to determine if it is a cultural resource, as follows:
 - If it is determined to not be a cultural resource, work may proceed with no further delay.
 - If it is determined to be a cultural resource, the cultural resources specialist will send a certified letter to the Tribal Historic Preservation Offices, notifying them that a cultural resource has been discovered and requesting further consultation.
 - If the find may be human remains or funerary objects, the cultural resources specialist will follow the procedures described in Section 5.0.

- Notify State Agencies: The construction project manager will contact Oregon SHPO.
- <u>Formulate Plan</u>: The construction project manager, affiliated Tribes, and Oregon SHPO will consult to determine a plan for disposition of the cultural resources.

Any required excavation or removal of cultural resources will be carried out under the requirements of 43 CFR Part 10.3 and 16 *United States Code* 470 aa, and will require a permit from the Oregon SHPO. The activity that resulted in the inadvertent discovery may resume thirty (30) days after certification of receipt of notification.

Oregon Historic Preservation Office

State Archaeologist Dennis Griffin, Ph.D. e-mail: Dennis.Griffin@oregon.gov (503) 986-0674

-or-

Assistant State Archaeologist John Pouley E-mail: john.pouley@oregon.gov (503) 986-0675

Tribes

Confederated Tribes of the Warm Springs Reservation of Oregon Robert Brunoe, Tribal Historic Preservation Officer THPO@ctwsbnr.org PO Box 460 Warm Springs, Oregon 97761 (541) 553-3555

Confederated Tribes of the Umatilla Indian Reservation Teara Farrow Ferman, Cultural Resources <u>tearafarrowferman@ctuir.com</u> 46411 Timine Way Pendleton, OR 97801 (541) 429-7230

5.0 Special Procedures for the Discovery of Human Skeletal Material

Any human skeletal remains will at all times be treated with the utmost dignity and respect. The attached document titled *Tribal Position Paper on the Treatment of Human Remains* (Government to Government Cultural Resources Cluster Group, September 2006) describes the appropriate protocol on the treatment of Native American human remains.

<u>STEP 1: STOP WORK</u>. In the event that human remains are discovered, stop all work in the area and secure the site.

<u>STEP 2: NOTIFY APPROPRIATE PARTIES</u>. Notify the construction project manager, law enforcement, and the coroner, immediately. The coroner (with the assistance of law enforcement personnel) will determine if the remains are human and whether the discovery site constitutes a crime scene, and will notify Oregon SHPO and the Tribes.
• Medical Examiner, Gilliam County

To be determined

• Gilliam County Sheriff's Department

221 S. Oregon Street Condon, Oregon 97823 (541) 384-2851

<u>STEP 3: PROTECT THE REMAINS</u>. There shall be no photography or drawings and sketches made of the human remains or funerary objects found with the human remains without written permission signed by the affiliated Tribes. Cover the remains with a tarp or other materials (not soil or rocks) for temporary protection in place and to shield them from being photographed. Remains should not be removed from the site prior to identifying the remains as Native American or not. If the remains are determined to be Native American, final disposition will be decided through consultation with the affiliated Tribes, Oregon SHPO, and <u>Montaguecertificate holder</u>.

STEP 4: CONSULTATION. If the coroner determines the remains are nonforensic, and if it is determined that the remains constitute a cultural resource, the construction project manager or appointed representative will participate in consultation with the affiliated Tribes and Oregon SHPO. The construction project manager or appointed representative will complete a written plan of action describing the disposition of cultural resources pursuant to 43 CFR Part 10 and will execute its prescribed duties within that plan of action. If the remains are determined to be Native American, final disposition will be decided through consultation with the affiliated Tribes, Oregon SHPO, and Montaguecertificate holder. If the medical examiner is not able to make a determination of Native American, a qualified forensic anthropologist from the State, Tribe, or contracted archaeological firm will need to be consulted for final determination.

6.0 Proceeding with Construction

Project construction outside the discovery location may continue while documentation and assessment of the cultural resources proceed. The construction project manager and a qualified archaeologist or Tribal representative must determine the boundaries of the discovery location. Construction may continue at the discovery location only after the process outlined in this plan is followed and the Oregon SHPO (and the federal agencies, if any) determines that compliance with state and federal laws is complete. Draft Amended Montague Solar Facility Historic Properties Management Plan

1 I. Introduction

2 This draft plan describes approaches to mitigating the significant adverse impact to the 3 Weatherford Barn resulting from construction and operation of the Montague Wind Power Facility (MWPFMontague Solar Facility).¹ The certificate holder will construct the facility in phases. This plan addresses mitigation associated with the second phase (Phase 2) of facility construction and operation. The Oregon State Historic Preservation Office (SHPO) has determined that components of Phase 2 of the MWPF-the Montague Solar Facility will have a significant adverse impact on the Weatherford Barn, an aboveground historic property eligible for inclusion in the National Register of Historic Places (NRHP). The Weatherford Barn is located on Bottemiller Lane, west of Oregon Route (OR) 19 in Gilliam County, Oregon, at approximately latitude 45.547156; longitude 120.170658 within the Shutler Flat U.S. Geographical Survey 7.5-minute quadrangle.

4<u>3</u>II. Regulatory Context for Mitigation

⁵⁴ Pursuant to Oregon Administrative Rule (OAR) 345-022-0090 and SHPO guidance, the

certificate holder conducted a historic and cultural resources inventory within 1 mile of the
 proposed expanded site boundary for Phase 2 of the MWPFthe site boundary. The Weatherford Barn is located within this analysis area and research determined it is eligible for listing in the NRHP. The certificate holder then identified potential impacts to the resource under OAR 345-021-0010(1)(s)(D) and provides this mitigation plan to prevent destruction of the resource in accordance with OAR 345-021-0010(1)(s)(D)(iii).

97 III. Description of the Aboveground Historic Property

This section provides a description of the Weatherford Barn, the determination of eligibility for inclusion in the NRHP, ownership associated with the Weatherford Barn, and the setting within the vicinity of the Weatherford Barn.

43<u>11</u> 1. Weatherford Barn

The Weatherford Barn is a one-story, rectangular plan, wood-frame building with a front **1412** The Weatherford Barn is a one-story, rectangular plan, wood-frame building with a front **1513** gable roof constructed in 1880. The building is surrounded by agricultural fields. Overall, the **1614** building is in poor condition and is no longer in regular use. Two large open bays are located on **1715** the north elevation – a double-height central bay and a side-aisle bay on the west side of the **1816** north elevation. A large, open bay is centered on the south elevation.

The west side of the roof is clad in nonoriginal corrugated metal, while the east side is 2018 covered in shingles, large sections of which are missing or badly deteriorated. The barn's 2419 exterior walls are covered in vertical wood boards. Many of these boards are rotten or missing, 2220 particularly on the west and south elevations. In addition, the original barn doors are missing. 2321 The building's interior floors are formed by wood planks on a slightly raised pier foundation.

¹ This plan is incorporated by reference in the site certificate for the Montague <u>Wind PowerSolar</u> Facility and must be understood in that context. It is not a "stand-alone" document. This plan does not contain all mitigation required of the certificate holder.

As a result of the deteriorated roof and walls, and the missing doors, the building is exposed to the elements. The building leans to the east, and four wood planks have been secured to buttress the side elevation. A wood post and wire fence have been added around the wood buttresses.

5 **2. Determination of Eligibility**

An Oregon Inventory of Historic Properties Historic Resource Survey Form was 6 completed for the Weatherford Barn in 1987. The form labels the property as the Weatherford 7 Barn, and lists the owner as Marion T. Weatherford. The Weatherford family was, and remains, 8 an important farming family in the area. However, it is not certain that the barn was originally 9 constructed by the Weatherford family. A 1934 Metsker Map of the area shows that the parcel 10 containing the barn was at that time part of Cannon Ranch, owned by A. M. Cannon. According 11 to the 1934 map, the Weatherford Ranch was located approximately 3 miles southwest, near 12 Olex (Metsker Maps, 1934). However, the parcels surrounding the barn appear to have been 13 14 owned by members of the Weatherford family, including Herbert R. Weatherford (to the west), Cavy E. Childs (daughter of William W. Weatherford) to the north, and M. F. Weatherford to the 15 southwest. A brief history of the county and the Weatherford family is included below for 16 context. 17

Gilliam County encompasses 1,223 square miles and is bordered by the Columbia River 18 to the north, Wasco and Sherman counties to the west, Morro and Grant counties to the east, and 19 Wheeler County to the south. Originally located within the eastern region of Wasco County, the 20 Legislative Assembly established Gilliam County on February 25, 1885. After the county was 21 established, the town of Arlington, formerly known as Alkali, which had been platted in 1882, 22 was named the county seat (Portland State University and the Oregon Historical Society, 2017). 23 However, the county seat was moved to Condon, Oregon (formerly known as Summit Springs) 24 25 in 1890.

26 **3. Ownership**

Marion T. Weatherford was born on October 9, 1906, near Arlington, Oregon "on his 27 family's wheat and cattle farm" (Burson, 2015). The farm became known for the Weatherford 16 28 Mule Team, which hauled wagons 26 miles to and from the railroad in Arlington. Between 1922 29 and 1942, Marion T. did not live at the family farm, although he visited regularly and "always 30 kept in touch with current events in this community" (Burson, 2015). In 1942, after the death of 31 his parents, Marion T. "returned to take over the farm with his wife Leona" (Burson, 2015). It 32 was apparently at this time that Marion T. acquired the property on OR 19, known currently as 33 the Marion T. Weatherford Ranch; it is also likely that at this time he acquired the barn, referred 34 to as Weatherford Barn. After Marion T. returned to the community, he became involved in a 35 number of local organizations during the 1940s and 1950s and established himself as an 36 important figure within the community (Burson, 2015; Oregon State University, 2017). 37

Marion T. Weatherford owned the barn on Bottemiller Lane when it was inventoried in 1987. It is currently owned by the Robert Athearn Living Trust. The 1987 Historic Resource Survey form identifies the vernacular style barn as in "good" condition and states: "This is the oldest known barn in the county, and has been in continual use as a barn since its construction in 1880. It has been excellently maintained" (Startz, 1987). The barn is identified in the Oregon Historic Sites Database as eligible for the NRHP (2017). While the barn is no longer in good condition and does not appear to be regularly used, it still retains important elements of its

1 integrity, including design, setting, location, feeling, and association. It remains significant as the

2 oldest known barn in Gilliam County. As such, the property remains eligible for listing in the

3 NRHP under Criterion A, for its association with the early agricultural history of the area.

4 **4. Setting**

5 The Weatherford Barn is located in an agricultural field north of Bottemiller Lane and

6 west of OR 19 in Gilliam County, Oregon. OR 19, also known as the John Day Highway,

7 connects Arlington in northern Gilliam County to Condon near the Gilliam County/Wheeler

County line to the south. An approximately <u>4.9</u>-3.9-mile segment of the highway crosses the
 <u>98</u> proposed expanded site boundary for Phase 2 of the MWPF and is adjacent to the proposed solar
 area, battery storage system, and Phase 2Montague Solar collector substation.

This segment of OR 19 is an important vantage point because the highway is an artery for
both in-county and inter-county travel. The Phase 2solar facilities would be the first features that
drivers see at the crest of the hill driving north on OR 19 headed out of Rock Creek Canyon. The
landscape in the area consists of a flat plane that slopes up gradually from north to south, gaining
approximately 165215 feet in elevation over the approximately 4.93.9 miles from the northern to the southern facility

site boundary. The landscape is open, and agricultural in nature, with views extending across flat
fields devoted to field crops toward distant low hills. The only developed features consist of the
Weatherford Barn and two small clusters of farm residences and farm operation support
structures (barns, sheds, and grain storage facilities).

The landscape in this area looks like other agricultural areas in Gilliam County and surrounding counties where wind generation installations have already been developed. Existing <u>2221</u> turbines are located approximately 1.8 miles northwest of the Weatherford Barn.

2322 IV. Description of the Impacts Addressed by the Plan

- ²⁴²³ In a letter dated March 1, 2019 in response to Request for Amendment 4, regarding SHPO Case No. 10-0378, SHPO concluded
- that components of the certificate holder's proposed Phase 2solar facilities near the Weatherford Barn would diminish the integrity of setting, feeling, and association of Weatherford Barn. On April 20, 2020, the certificate holder submitted Request for Amendment 5 (RFA5) to expand the solar array area north of Bottemiller Lane on the same parcel as the approved Montague Solar collector substation and operations and maintenance building. In a letter dated July 17, 2020 in response to RFA5, regarding SHPO Case No. 10-0378, SHPO concluded the proposed expansion of the solar array for the Montague Solar Facility would result in those aspects of integrity of the barn being lost entirely. In their July 17, 2020 letter, SHPO recommended increasing the scale of the mitigation effort to account for the increased scale of the adverse effect.
- In response to SHPO's finding, the certificate holder demonstrates that they will reduce impacts to Weatherford Barn to less than significant by either implementing setbacks described in Section V or by implementing twoone of the three mitigation options described in Section VI. The Department and SHPO were consulted on July 30, 2020 and agreed to this mitigation approach.

26 V. Implementation of Setbacks

27 The <u>proposed Phase 2-solar</u> facilities near the Weatherford Barn include the solar array area, facility substation, battery storage system, and transmission lines. The solar array is **MONTAGUE WIND POWERSOLAR** FACILITY FINAL ORDER – ATTACHMENT H

- approximately 1 mile wide and will extend along the west side of OR 19 for <u>approximately 4.92</u> miles between
- 29 <u>a section north of Bottemiller Lane and the southern boundary of the facility near Baseline Road.</u> As <u>proposedapproved</u>, the solar array is set back 100 to 150 feet from the highway and will be arranged in orderly rows.
- 30 The solar collector panels will be relatively low to the ground, with a maximum height of 15
- feet. The nearest fenced boundary of the solar array is approximately 35 feet west of the shoulder
- 32—of OR 19 and 300 feet south of the Weatherford Barn. The nearest fenced boundary of the Phase
- 1 2<u>Montague Solar</u> collector substation, battery storage system, and operations and maintenance building is approximately 550 feet east of the Weatherford Barn. SHPO determined the proposed Phase 2<u>solar</u> facilities arrangement would have a significant adverse impact on the Weatherford Barn.

To avoid a significant adverse impact, the certificate holder will continue to consult with
 the Oregon Department of Energy (Department) and SHPO on the relocation of proposed Phase
 <u>2 facilitiessolar facility components</u> to determine if a location exists that will result in no significant impact to the integrity of setting, feeling, and association of the Weatherford Barn. If

no feasible facility location exists that avoids these impacts, the certificate holder will implement <u>twoone</u> of the <u>three</u> mitigation actions provided in Section VI and will provide a setback of 200 feet from Facility components to the Weatherford Barn.

54 VI. Mitigation Measures

65___1. Mitigation Option 1: Historic Barn Survey

The certificate holder would conduct a reconnaissance-level survey of up to 25 barns in
Gilliam County built prior to 1950. This date is selected to focus the study on barns associated
with the earlier period of the agricultural industry in the county. This project would include the
following tasks.

Research – Prior to conducting the fieldwork, an architectural historian would review the <u>1211</u> Oregon Historic Sites Database to obtain background information about barns previously <u>1312</u> inventoried in Gilliam County. In addition to the review of historical literature, maps, and <u>1413</u> photos, this research would include communicating with the Gilliam County Historical Museum <u>1514</u> staff to determine if the museum had recommendations about noteworthy barns in the area. The <u>1615</u> architectural historian would communicate with SHPO to determine the type of forms on which <u>1716</u> properties would <u>be</u> recorded.

Fieldwork – A field investigation would be conducted and would include Fieldwork – A field investigation would be conducted and would include Fieldwork – A field investigation would be conducted and would include field. Photographs would be taken from the public right-of-way, unless property owner allowed architectural historian on the property. Though some properties may be located within a complex of historic buildings associated with a farmstead, the inventory would only include the barn. Overview photographs showing the associated buildings as they relate to the setting of the barn would be included.

<u>Reporting</u> – Architectural historians would prepare a draft and final report including an
 overview of the agricultural history of Gilliam County, a summary of common barn types and
 forms found in the county, a description of the study area, methods used, summaries of
 inventoried properties, and a map showing their locations. The draft report would be reviewed by
 the Oregon SHPO. Comments would be addressed in a final report. Copies of inventory forms
 would be submitted to SHPO.

34<u>30</u>2. Mitigation Option 2: Local Historical Society Exhibit

The certificate holder would partner with a local historical society or other organization to display an exhibit on Gilliam County historic barns. The certificate holder would hire a consultant or museum to prepare a portable exhibit documenting the agricultural history of Gilliam County as it relates to the development of historic barns. The exhibit would provide acchitectural information about the different types, forms, materials and methods of construction of barns in the county. This project would involve research in local repositories including the Gilliam County Historical Museum and libraries to obtain historical photographs, maps, and other research materials. The exhibit would consist of text, photos, and graphical information mounted on portable display panels allowing it to be moved to different locations for display. Att40 The exhibit would initially be installed at the Gilliam County Historical Museum, which is

dedicated to interpreting the agricultural history of the county. SHPO would be afforded the
 opportunity to review and comment on the display panels and content prior to fabrication.

3 3. Mitigation Option 3: Contribution to Historical Organization Dedicated to Preserving

4 the Agricultural History of Gilliam County

5 The certificate holder would make a \$25,000 contribution to the Gilliam County

6 Historical Museum to support the construction of a new building being erected to house

7 agricultural artifacts such as tractors and other equipment donated to the museum, which focuses

8 on interpreting the agricultural history of Gilliam County, Oregon. The certificate holder

developed this option in consultation with the Gilliam County Historical Museum. SHPO would
 receive annual reports on the status of mitigation within the duration provided in Section VII.

11 VII. Duration

Mitigation will be implemented within three (3) years from the start of Phase 2 construction. Prior to such time, the certificate holder shall consult with the Department or SHPO

14 to confirm the mitigation option selected.

15 VIII. Amendment of the Plan

This *Phase 2*-*Historical Resource Mitigation Plan* may be amended from time to time by agreement of the certificate holder and the Energy Facility Siting Council (Council). SHPO will have the opportunity to review and participate in proposed amendments. Such amendments may be made without amendment of the site certificate. The Council authorizes the Department to agree to amendments to this plan. The Department shall notify the Council of all amendments, and the Council retains the authority to approve, reject, or modify any amendment of this plan agreed to by the Department.

23 IX. References

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- Metsker Maps. 1934. *Gilliam County*. Page 026 Township 1 N, Ranch 21 E, Rock Cr. Historic
 Map Works. Accessed June 7, 2017. <u>http://www.historicmapworks.com</u>.
- Oregon Historic Sites Database. 2017. Weatherford Barn. Site Information. Accessed July 18, 2017.

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- 36 Portland State University and the Oregon Historical Society. 2017. "Arlington." *The Oregon*
- 37 *Encyclopedia*. Accessed June 7, 2017.
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- Startz, Kathleen. 1987. "Weatherford Barn." *Oregon Inventory of Historic Properties*. Historic
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