

**Montague Wind Power Facility: Draft Proposed Order on Request for Amendment 5 of Site Certificate**

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**To:** Oregon Energy Facility Siting Council  
**From:** Sarah Esterson, Senior Siting Analyst  
**Date:** June 26, 2020  
**Re:** Draft Proposed Order on Request for Amendment 5

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**Certificate Holder:** Montague Wind Power Facility, LLC, a wholly owned subsidiary of Avangrid Renewables, LLC

**Facility Description:** Montague Wind Power Facility is an approved 404 megawatt (MW) wind and solar energy generation facility, to be developed in two phases; Phase 1 (actual) includes 201 MW of wind energy generation equipment consisting of 56 wind turbines and related or supporting facilities and commenced commercial operation in October 2019. Phase 2 (approved) includes 203 MW of wind and solar energy generation equipment consisting of up to 81 wind turbines, up to 1,189 acres of solar photovoltaic energy generation components, and related or supporting facilities. Construction of Phase 2 must commence by August 30, 2022.

**Proposed Facility Modifications:** Amend the Montague Wind Power Facility site certificate to include only Phase 1 facility components (as described above – 201 MW, 56 wind turbines); split Phase 2 facility components (as described above) into two new site certificates, based entirely on Montague Wind Power Facility site certificate, for facilities named Montague Solar Facility (162 MW of solar photovoltaic energy generation components on up to 1,496 acres, and 100 MW of battery storage) and Oregon Trail Solar Facility (41 MW of wind and solar components, including up to 16 wind turbines, up to 1,228 acres of solar photovoltaic energy generation equipment, and 100 MW of battery storage). Share operation and ownership of related or supporting facilities (Montague Wind collector substation and Operations and Maintenance building, 230 kilovolt (kV) transmission line, 100 MW battery storage, laydown areas and access roads). Propose new certificate holders for Montague Solar Facility and Oregon Trail Solar Facility - Montague Solar, LLC and Oregon Trail Solar, LLC, respectively, owned by the existing certificate holder owner, Avangrid Renewables, LLC. Increase the amount of agricultural land occupied by solar photovoltaic energy generation equipment (solar micro-siting area) – including addition of 307 acres for Montague Solar Facility (from 1,189 to 1,496 acres) and 1,228 acres for Oregon Trail Solar Facility; take a “reasons” exception to the statewide policy embodied in Goal 3, Agricultural Lands. Reduce site boundary area from 47,056 to 42,946 acres; construct and operate a new switching station; construct and operate alternate 230 kV transmission line segment route; and, amend and remove site certificate conditions.

**Location of Facility Modifications:** Gilliam County

**Staff Recommendation:** Approval of Request for Amendment 5

## Summary

To issue an amended site certificate, the Energy Facility Siting Council (EFSC or the Council) must find that a request for amendment to the site certificate demonstrates that the facility, with proposed changes, satisfies, or with conditions can satisfy, each of the applicable EFSC Siting Standards set forth in Oregon Administrative Rule (OAR) OAR 345 Divisions 22 through 24 as well as all other Oregon statutes and administrative rules applicable to the changes proposed in Request for Amendment 5 of the Montague Wind Power Facility Site Certificate (RFA5, amendment request, or proposed RFA5 modifications).

As staff to EFSC, the Oregon Department of Energy (ODOE or the Department) reviewed RFA5, in coordination with specifically identified local and state agencies. Based upon its review of the amendment request, the Department recommends the Council issue an amended site certificate for the Montague Wind Power Facility and two new site certificates for the Montague Solar and Oregon Trail Solar Facilities – based entirely on the Montague Wind Power Facility site certificate (September 2019), unless otherwise evaluated in this order. The draft proposed order contains the Department's analysis of the amendment request and includes recommended new and amended site certificate conditions. The analysis and recommendations contained in this draft proposed order are not a final determination.

A public comment period is now open on the draft proposed order and complete amendment request. The comment deadline for written comments to be received by the Department is Thursday, July 23, 2020 by the close of the record of the public hearing. In addition, the Council will hold a public hearing on RFA5 and the Department's Draft Proposed Order on RFA5, with opportunities for remote and in-person participation, on July 23, 2020 at 5:30 p.m. at the Veteran's Memorial Hall at 120 S. Main Street in Condon, Oregon. Please note, interested persons must raise issues on the record of the public hearing, either orally at the public hearing or in writing during the comment period, to preserve their right to participate further in the process. Written or oral comments must be received by the Department prior to the conclusion of the public hearing on July 23, 2020. Section II.B, *Amendment Review Process*, of the draft proposed order contains additional information regarding the site certificate amendment review process. The public notice announcing the release of this draft proposed order contains additional information regarding the comment period and public hearing including the weblink and phone number to use for the July 23, 2020 public hearing.

**BEFORE THE  
ENERGY FACILITY SITING COUNCIL  
OF THE STATE OF OREGON**

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

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

June 26, 2020

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## ATTACHMENTS

### Attachment A Draft Site Certificates

Draft Amended Montague Wind Facility Site Certificate

Draft Montague Solar Facility Site Certificate

Draft Oregon Trail Solar Facility Site Certificate

Comparison Table of Site Certificate Conditions (to be included in Proposed Order)

### Attachment B

Reviewing Agency Comments on preliminary Request for Amendment 5

### Attachment C

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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

### 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

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

## **I. INTRODUCTION**

The Oregon Department of Energy (Department or ODOE) issues this draft proposed order, in accordance with Oregon Revised Statute (ORS) 469.405(1) and Oregon Administrative Rule (OAR) 345-027-0367, 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 recommendations received by specific state agencies and local governments during review of the preliminary amendment request. The certificate holder is Montague Wind Power Facility, LLC (hereinafter referred to as certificate holder), a wholly owned subsidiary of Avangrid Renewables, LLC.

The certificate holder requests that Energy Facility Siting Council (EFSC or Council) approve changes to the site certificate to:

- Amend the Montague Wind Power Facility site certificate to cover Phase 1 facility components (201 MW, 56 wind turbines with maximum blade tip height of 492 feet) within reduced site boundary (47,056 to 29,607 acres)
- Allocate previously approved Phase 2 facility components into two new site certificates, based entirely on the approved Montague Wind Power Facility site certificate, to be owned and operated by new limited liability companies (LLC) owned by current certificate holder owner, Avangrid Renewables LLC. The amendment request seeks approval to use or occupy more area for the layout of previously approved solar photovoltaic energy generation equipment (increase maximum footprint from 1,189 to 2,725 acres).
  - Montague Solar Facility: to include 1,496 acre solar micrositing area (1,189 acres previously approved, plus proposed addition of 307 acres) and 162 MW of previously approved solar photovoltaic energy generation equipment and related or supporting facilities, within 1,763 acre site boundary.
  - Oregon Trail Solar Facility: to include a proposed 1,228 acre solar micrositing 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 up to 1,228 acres of solar photovoltaic energy generation equipment, or any combination of wind and solar energy generation equipment not to exceed 41 MW, and related or supporting facilities, within a 13,866 acre site boundary. Proposed new related or supporting facilities include a 2-acre switching station comprised of circuit breakers, switches, and other auxiliary equipment to link the Oregon Trail Solar Facility to the Montague Solar collector substation
- Amend Council's previous goal exception taken for a 1,189 acre solar micrositing area under the statewide policy embodied in Goal 3, Agricultural Lands, to cover the proposed expansion from 1,189 to 2,725 acres. The amended goal exception would then apply to solar micrositing areas under the Montague Solar Facility (1,496 acres) and Oregon Trail Solar Facility (1,228 acres) site certificates.

- To be included in the amended and new site certificates:
  - Alternative 3.6 mile route segment for previously approved 230 kV transmission line
  - Removal of Condition 89(a) 200 foot setback for transmission lines to residential structures
  - Administratively amend/delete site certificate conditions based on allocation of Phase 1 and Phase 2 facility components into amended and new site certificates

In the amendment request, the certificate holder requests that Council apply the transfer process under OAR 345-027-0400 based on the change in certificate holder for the site certificates that would be issued for Montague Solar Facility and Oregon Trail Solar Facility. However, 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 certificate holder owner - in accordance with the intent of the language under OAR 345-025-0006(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 company, and the parent company is the owner of the certificate holder, not to trigger the OAR 345-027-0400 transfer process.

Based upon review of this amendment request, in conjunction with comments and recommendations received by state agencies and local government entities, the Department recommends that the Council approve and grant a fifth amendment to the Montague Wind Power Facility site certificate subject to the existing and recommended new and amended conditions set forth in this draft proposed order. If approved, the amended site certificate would result in an amended site certificate for the Montague Wind Facility and original site certificates for the Montague Solar Facility and Oregon Trail Solar Facility, inclusive of all conditions previously imposed in the Montague Wind Power Facility site certificate, unless otherwise evaluated in this order.

#### **I.A. Certificate Holder and Owner Information**

##### *Montague Wind Power Facility*

The current certificate holder for the Montague Wind Power Facility site certificate is as follows:

Montague Wind Power Facility, LLC  
1125 NW Couch Street, Suite 700  
Portland, OR 97209



1 The current certificate holder owner (parent company) for the Montague Wind Power Facility  
2 site certificate is as follows:

3  
4 Avangrid Renewables, LLC  
5 1125 NW Couch Street, Suite 700  
6 Portland, OR 97209

7  
8 *Montague Solar Facility*  
9

10 The proposed certificate holder for the Montague Solar Facility site certificate is as follows:

11  
12 Montague Solar, LLC  
13 1125 NW Couch Street, Suite 700  
14 Portland, OR 97209  
15

16 The certificate holder owner (parent company) for the Montague Solar Facility site certificate is  
17 as follows:

18  
19 Avangrid Renewables, LLC,  
20 1125 NW Couch Street, Suite 700  
21 Portland, OR 97209  
22

23 *Oregon Trail Solar Facility*  
24

25 The proposed certificate holder for the Oregon Trail Solar Facility site certificate is as follows:

26  
27 Oregon Trail Solar, LLC  
28 1125 NW Couch Street, Suite 700  
29 Portland, OR 97209  
30

31 The certificate holder owner (parent company) for the Oregon Trail Solar Facility site certificate  
32 is as follows:

33  
34 Avangrid Renewables, LLC,  
35 1125 NW Couch Street, Suite 700  
36 Portland, OR 97209  
37

38 **I.B. Operational and Approved Facility Components, Site Boundary and Micrositing Corridors**  
39

40 The Montague Wind Power Facility is a wind and solar energy generation facility that includes  
41 facility components currently in operation; and, facility components that were previously  
42 approved but not yet been constructed. The facility was approved to be developed in two  
43 phases, Phase 1 and Phase 2. Phase 1 commenced operation in October 2019 and includes 201

1 MW of wind energy generation components. Wind energy generation components and related  
2 or supporting facilities include: 56 wind turbines with a maximum blade tip height of 499 feet;  
3 an above- and belowground 34.5 kV electrical collection system; fiber optic communications  
4 network; Supervisory, Control and Data Acquisition (SCADA) system; one collector substation  
5 (Phase 1 collector substation); aboveground, approximately 10 mile single-circuit 230-kV  
6 transmission line; four permanent meteorological towers; access roads; public roadway  
7 modifications; and temporary laydown areas and crane paths.

8  
9 Phase 2 is approved for up to 202 MW of wind and solar energy generation equipment,  
10 including any combination of up to 81 wind turbines with a maximum blade tip height ranging  
11 from 486 to 597 feet and solar photovoltaic equipment occupying up to 1,189 acres (solar  
12 microsite area). Related or supporting facilities include an above- and belowground electrical  
13 collection system; SCADA System; one collector substation; an approximately 14-mile 230 kV  
14 transmission line (includes the 10-mile 230 kV transmission line constructed as part of Phase 1);  
15 up to 8 permanent meteorological towers; new, temporary and substantially modified access  
16 roads; 100 MW of lithium-ion or flow battery storage system; and temporary laydown areas.

17  
18 Within the solar microsite area, solar photovoltaic energy generation equipment could  
19 include up to 867,000 modules consisting of solar panels, trackers, racks, posts,  
20 inverter/transformer units and above- and belowground cabling. Solar panels would be  
21 supported by approximately 260,000 galvanized steel posts, which would be hydraulically  
22 driven into the ground at a depth of 5 to 8 feet, with an approximately 4 to 5.5-foot  
23 aboveground height. Solar panels would be designed with anti-reflective coating. Modules  
24 would be placed on non-specular metal galvanized steel racks, with heights ranging from 4 to  
25 15 feet at full tilt. To convert energy generated within the modules from alternating current (ac)  
26 to direct current (dc), up to 102 inverter/transformer units would be installed. Solar  
27 photovoltaic energy generation equipment would be contained by an approximately 8-foot  
28 chain-link fence extending around the perimeter (approximately 6.9 miles). Access to solar  
29 facility components would be provided via two new access points on the north side of  
30 Bottemiller Lane.

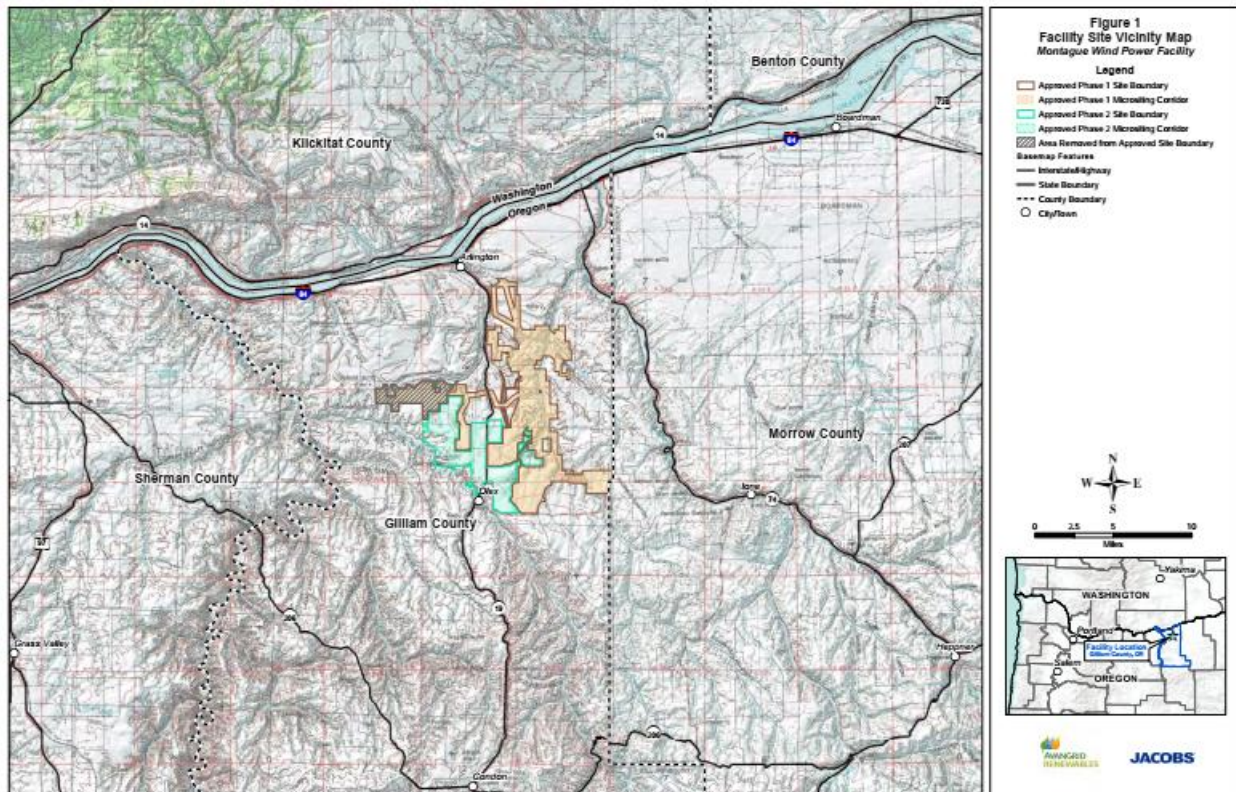
31  
32 The battery storage approved for Phase 2 would occupy up to 6 acres and would include  
33 batteries and racks or containers, inverters, isolation transformers, and switchboards, an  
34 approximately 20-foot warehouse-type building, medium-voltage and low-voltage electrical  
35 systems, fire suppression, heating, ventilation, and air-conditioning systems, building auxiliary  
36 electrical systems, and network/SCADA systems. Battery storage would include a cooling  
37 system (more advanced systems required for Li-ion), which may include a separate chiller plant  
38 located outside the battery racks with chillers, pumps, and heat exchangers. High-voltage (HV)  
39 equipment would include a step-up transformer, HV circuit breaker, HV current transformers  
40 and voltage transformers, a packaged control building for the HV breaker and transformer  
41 equipment, HV towers, structures, and HV cabling. The battery storage area would be enclosed  
42 by approximately 2,140 feet of continuous chain-link perimeter fencing 8 feet in height, with  
43 two 16-foot-wide gates and one pedestrian, 4-foot-wide gate.

## I.C. Description of Approved Facility Site Location

### Site Boundary

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

**Figure 1: Facility Regional Location and Approved Site Boundary**



<sup>1</sup> 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 *Micrositing Corridor*

2  
3 Micrositing corridor means a continuous area of land within which construction of facility  
4 components may occur subject to site specific conditions.<sup>2</sup> Council authorizes micrositing  
5 corridors for energy facilities when a certificate holder has adequately studied the entire  
6 corridor and demonstrated compliance with Council standards based on impacts of facility  
7 components anywhere within the corridor.

8  
9 For this facility, based on the extent of the certificate holder's analysis, as provided on the  
10 record of siting proceedings on the Final Order on the ASC through the Final Order on RFA4, the  
11 Council approved two distinct micrositing corridors – one for solar facility components and one  
12 for wind facility components. The approved micrositing corridor/area for wind facility  
13 components is depicted by areas shaded in beige and blue; the approved micrositing corridor  
14 for solar facility components is depicted by the area outlined in pink, as presented in Figure 2:  
15 *Approved Micrositing and Transmission Line Corridors.*

16  
17 *Transmission Line Corridor*

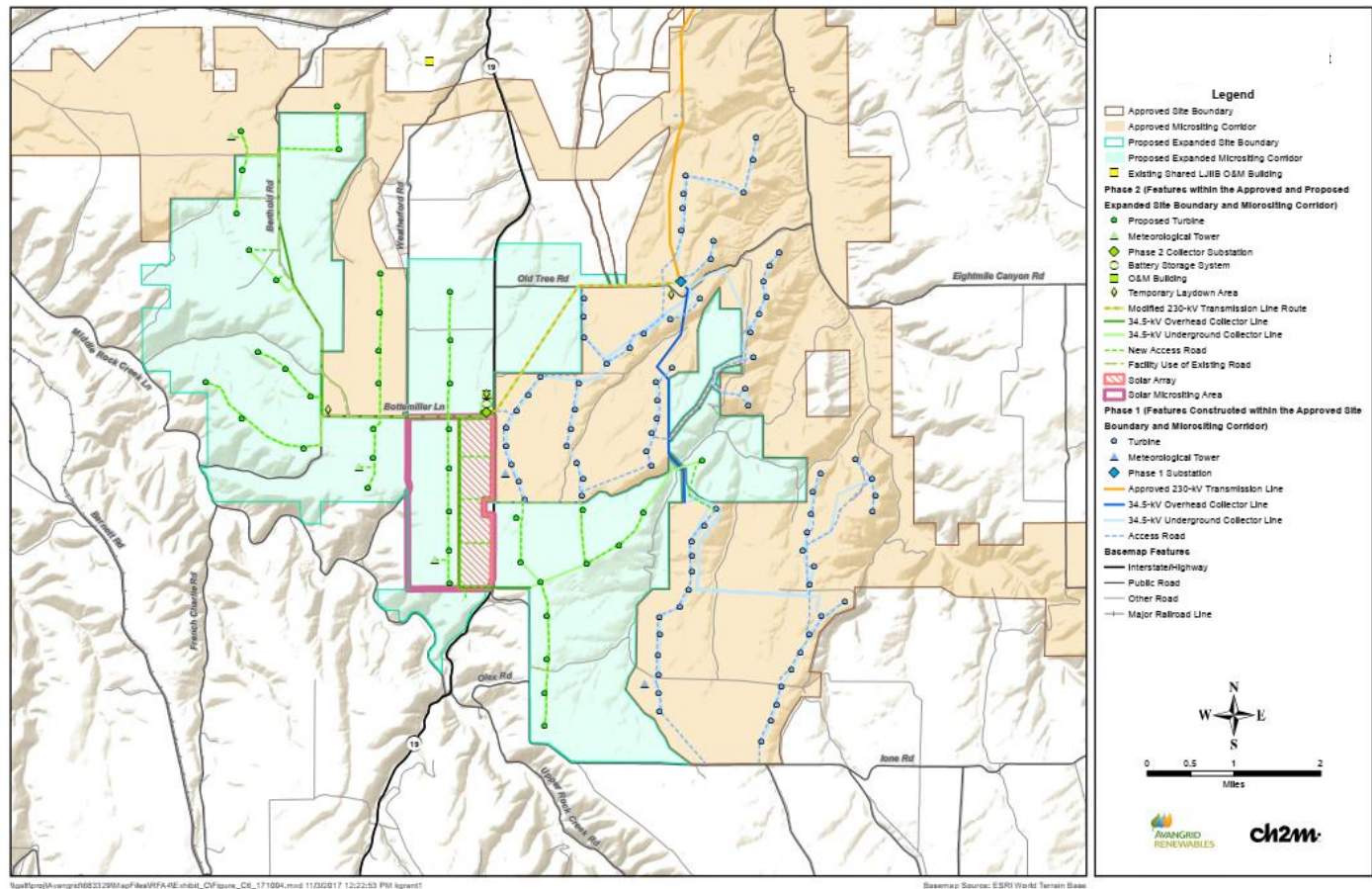
18  
19 The facility includes a 14 mile 230 kV transmission line corridor, extending from the Phase 2  
20 collector substation to the Phase 1 collector substations, and then from the Phase 1 collector  
21 substation to Bonneville Power Administration's Slatt Substation, for interconnection to the  
22 electric grid. The approved transmission line corridor, as specified in Condition 18 pursuant to  
23 OAR 345-025-0010(5), is ½-mile in width and extends approximately 14 miles in length, as  
24 presented by the yellow/orange line in Figure 2: *Approved Micrositing and Transmission Line*  
25 *Corridors.*

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2 OAR 345-001-0010(32)

1 **Figure 2: Approved Micrositing and Transmission Line Corridors**



## 2 I.D. Site Certificate Procedural History

3 The Council issued the *Final Order on the Application for Site Certificate for the Montague Wind*  
 4 *Power Facility (Final Order on the Application)* on September 10, 2010, authorizing construction  
 5 and operation of a 404 MW wind energy generation facility, with up to 269 wind turbines and  
 6 related or supporting facilities. On December 28, 2012, the certificate holder submitted to the  
 7 Department its Request for Amendment 1 (RFA1), seeking approval to extend the construction  
 8 commencement and completion deadlines by two years, lower the minimum aboveground  
 9 blade-tip clearance for wind turbines, and transfer of the site certificate.<sup>3</sup> The Council issued a  
 10 *Final Order on Amendment 1 of the Site Certificate* on June 21, 2013, approving the requested  
 11 changes.  
 12  
 13  
 14

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



On March 11, 2015, the certificate holder submitted to the Department its Request for Amendment 2 (RFA2), seeking approval to extend the construction commencement and completion deadlines by two years. The Council issued a *Final Order on Amendment 2 of the Site Certificate* on December 4, 2015, approving the requested changes. On May 4, 2017, the certificate holder submitted to the Department its Request for Amendment 3 (RFA3), seeking approval to lower the minimum aboveground blade-tip clearance. The Council issued a *Final Order on Amendment 3 of the Site Certificate* on July 12, 2017, approving the requested change.

On April 5, 2019, the certificate holder filed a complete Request for Amendment 4 (RFA4), 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 photovoltaic equipment; and, change wind turbine layout and maximum dimension specifications. The Council issued a *Final Order on Amendment 4 of the Site Certificate* on September 6, 2019, approving the requested change.

## **II. AMENDMENT PROCESS**

### **II.A. Requested Amendment**

#### *Montague Wind Power Facility Site Certificate – Facility and Site Boundary Description*

The amendment request seeks Council approval to amend the Montague Wind Power Facility site certificate, based entirely on the fourth amended site certificate (September 2019), to apply only to Phase 1 facility components currently in operation, within a redefined site boundary encompassing approximately 29,607 acres. For the Montague Wind Power Facility site certificate, the site boundary and micrositing corridor are the same.

The Montague Wind Power Facility site certificate would apply to the existing, operational 201 MW wind-energy generation facility including 56 wind turbines; an above- and belowground 34.5 kV electrical collection system; fiber optic communications network; SCADA system; one collector substation (renamed from Phase 1 collector substation to Montague Wind 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.

Related or supporting facilities to be shared under Montague Wind Power, Montague Solar, and Oregon Trail Solar Facility site certificates include the existing, operational Montague Wind collector substation and the approximately 10-mile segment of 230 kV transmission line extending from the Montague Wind collector substation to BPA's Slatt Substation.

The current Montague Wind Power Facility site certificate holder would be maintained as Montague Wind Power Facility, LLC, a wholly owned subsidiary of Avangrid Renewables, LLC.

*New Site Certificates - Facility and Site Boundary Descriptions*

The amendment request seeks Council approval to further amend the Montague Wind Power 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 (Phase 2) into two new site certificates, for facilities named Montague Solar Facility and Oregon Trail Solar Facility.

*Montague Solar Facility*

The Montague Solar Facility site certificate would include 162 MW of previously approved solar photovoltaic energy generation equipment within previously approved site boundary (1,763 acres) and solar micrositings area (1,189 acres). The amendment requests seeks approval to expand the previously approved solar micrositings area by 307 acres, from 1,189 to 1,496 acres, 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 electrical collection system; fiber optic communications network; SCADA system; two collector substations (renamed from Phase 1 collector substation to Montague Wind collector substation and Phase 2 collector substation to Montague Solar collector substation); approximately 14 miles of aboveground single-circuit 230-kV transmission line; an O&M building (renamed from Phase 1 O&M to Montague Solar O&M building); 100 MW of battery storage, access roads; public roadway modifications; and temporary laydown areas and crane paths.

Previously approved related or supporting facilities to be shared under Montague Wind Power, 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 extending from the Montague Solar collector substation, to the Montague Wind collector substation, and then to BPA's Slatt Substation. Previously approved related or supporting 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 line, 100 MW of battery storage, access roads and temporary laydown areas and crane paths.

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 Renewables, LLC, the current certificate holder owner.

*Oregon Trail Solar Facility*

The Oregon Trail Solar Facility site certificate would include any combination of previously approved wind and solar facility components not to exceed 41 MW, within previously approved site boundary area (13,866 acres) and 12,638 acre wind micrositings corridor. In the amendment request, the certificate holder seeks approval for use of a new 1,228 acre solar micrositings area within previously approved site boundary area. The facility would include up to 16 wind

turbines with a maximum blade tip height of 597 feet or solar photovoltaic energy generation equipment occupying up to 1,228 acres, or any combination of wind and solar generation equipment not to exceed 41 MW; an above- and belowground 34.5 kV electrical collection system; fiber optic communications network; SCADA system; two collector substations (renamed from Phase 1 collector substation to Montague Wind collector substation and Phase 2 collector substation to Montague Solar collector substation); approximately 14 miles of aboveground single-circuit 230-kV transmission line; an O&M building (renamed from Phase 1 O&M to Montague Solar O&M building); 100 MW of battery storage; access roads; public roadway modifications; and temporary laydown areas and crane paths.

Previously approved related or supporting facilities to be shared under Montague Wind Power, 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 extending from the Montague Wind collector substation to BPA's Slatt Substation. Related or supporting 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 line, 100 MW of battery storage, access roads and temporary laydown areas and crane paths.

New related or supporting facilities proposed in RFA5 include a switching station that would connect the Oregon Trail Solar Facility to the Montague Solar collector substation via a 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 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 operated by a new LLC - Oregon Trail Solar, LLC, a wholly owned subsidiary of Avangrid Renewables, LLC, the current certificate holder owner.

#### *Proposed 230 kV Transmission Line Alternative Route Segment*

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 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 Substation. The proposed alternate route segment would exit east out of the Montague Solar collector substation to a 90-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 turn east towards the Montague Wind collector substation. The approved and proposed alternative segment route are presented in Figure 3: *Proposed Site Boundary, Solar Micrositing Area and Alternate 230 kV Transmission Line Segment Route* below.



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  
6 certificates. For the amended Montague Wind Power Facility site certificate, the site boundary  
7 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  
12 micrositing area for the Montague Wind Power Facility site certificate from 1,189 to 2,725 acres  
13 and redefine solar micrositing areas for the amended and new site certificates. For the  
14 amended Montague Wind Power Facility site certificate, the solar micrositing area would be  
15 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  
17 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  
26 In RFA5, the certificate holder seeks approval of an additional 1,228 acre solar micrositing area  
27 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*

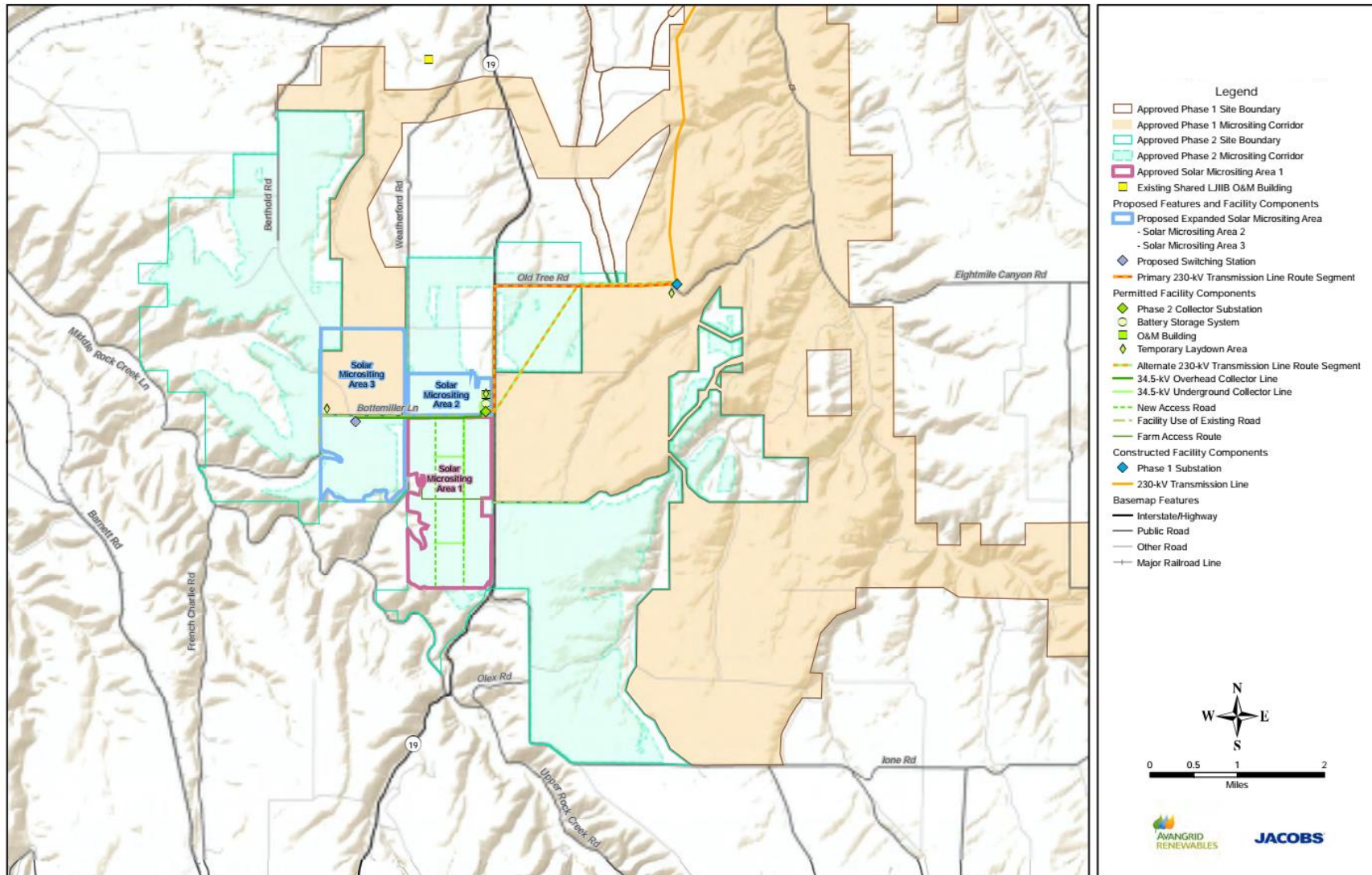
31  
32 The certificate holder requests Council approval to amend the Council's previous exception  
33 taken for the statewide policy embodied in Goal 3, *Agricultural Lands*, based on the use,  
34 occupation or cover of more than 12 acres of high-value farmland and more than 20 acres of  
35 arable 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  
38 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,

1 add, or delete through the amendment process. The certificate holder seeks approval to  
2 administratively amend several conditions imposed in the Montague Wind Power Facility to  
3 align with the allocation of facility components across the amended and new site certificates.  
4 The certificate holder requests to substantively amend Condition 89(a) to remove a 200 foot  
5 setback for transmission lines to residential structures (site certificate Condition 89(a)). The  
6 draft amended and new site certificates, as presented in Attachment 1 of this order, are based  
7 entirely on the Council's August 2019 Fourth Amended Site Certificate, unless otherwise  
8 evaluated in this order.

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



2

## II.B. Amendment Review Process

Council rules describe the processes for transfers, Type A, Type B, and Type C review of a 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 process is associated with construction-related changes. The key procedural difference between the Type A and Type B review is that Type A review includes a public hearing on the draft proposed order and an opportunity to request a contested case proceeding. The primary 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 amendment, as well as the issuance of the draft proposed order, and proposed order. It is important to note that Council rules authorize the Department to adjust the timelines for these specific procedural requirements, if necessary.

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, requesting the Department’s review and determination of whether, based on evaluation of the 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 issued a written determination to the certificate holder stating that Type A review be maintained for the modifications proposed in pRFA5.

OAR 345-027-0357(7) allows that, at the request of the certificate holder, the Department’s determination must be referred to the Council for concurrence, modification, or rejection, which, in this instance, was not exercised.

### Reviewing Agency Comments on preliminary Request for Amendment 5

The Department consulted with or received comments on RFA5 from the following reviewing agencies and Special Advisory Group:

- Oregon Department of Fish and Wildlife
- Oregon Department of Land Conservation and Development
- Oregon Department of Aviation
- Gilliam County (Special Advisory Group)

Comments from these agencies and local governments are incorporated into the Department’s analysis of Council standards below, as applicable, and provided in Attachment B of this order.

For reference, a special advisory group is defined as “the governing body of any local government within whose jurisdiction the facility is proposed to be located.”<sup>4</sup> On November 20,

---

<sup>4</sup> ORS 469.480

1 2010, EFSC designated the Gilliam County Board of Commissioners as the Special Advisory  
2 Groups (SAG) for the facility.

3  
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.

7  
8 **II.C. Council Review Process**  
9

10 On June 26, 2020, the Department issued the draft proposed order, and a notice of comment  
11 period on RFA5 and the draft proposed order (notice). The notice was distributed to all persons  
12 on the Council's general mailing list, to the special mailing list established for the facility, to an  
13 updated list of property owners supplied by the certificate holder, and to a list of reviewing  
14 agencies as defined in OAR 345-001-0010(52).  
15

16 The comment period extends 27-days, and will conclude at the close of the public hearing  
17 scheduled to occur on July 23, 2020 at the Veteran's Memorial Hall in Condon, Oregon. In  
18 addition to accepting written comments during the comment period, the Council will also  
19 accept oral testimony at the public hearing.<sup>5</sup>  
20

21 To raise an issue on the record of the draft proposed order, a person must raise the issue in a  
22 written comment submitted after the date of the notice of the draft proposed order received  
23 by the Department before the written comment deadline. The Council will not accept or  
24 consider public comments on the RFA5 or on the draft proposed order after the written  
25 comment deadline, listed above, that closes the record on the draft proposed order. Only those  
26 persons, including the site certificate holder, who provided written comment by the written  
27 comment deadline may seek judicial review as provided in ORS 469.403 and issues eligible for  
28 judicial review are limited to the issues raised in that person's written comments.  
29

30 After the Council considers all comments received before the comment deadline for the draft  
31 proposed order, but not more than 21 days after the comment deadline, the Department will  
32 issue a proposed order, taking into consideration Council comments, any comments received  
33 "on the record of the public hearing" (i.e., oral testimony provided at the public hearing and  
34 written comments received by the Department after the date of the notice of the public  
35 hearing and before the close of the public hearing comment period), including any comments  
36 from reviewing agencies, special advisory groups, Tribal Governments and the certificate  
37 holder. Concurrent with the issuance of the proposed order, the Department will issue a Notice  
38 of Opportunity to Request a Contested Case and a public notice of the proposed order.<sup>6</sup>  
39

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<sup>5</sup> OAR 345-027-0067(6).

<sup>6</sup> See OAR 345-027-0371

1 Only those persons who comment in person or in writing on the record of the public hearing  
2 may request a contested case proceeding on their issues raised, unless the Department did not  
3 follow the requirements of OAR 345-027-0367, or unless the action recommended in the  
4 proposed order differs materially from the draft proposed order, including any recommended  
5 conditions of approval, in which case the person may raise only new issues within the  
6 jurisdiction of the Council that are related to such differences. If the Council finds that a request  
7 for contested case identifies one or more properly raised issues that justify a contested case  
8 proceeding, the Council shall conduct a contested case proceeding on the proposed order.  
9

10 All rules and supporting evidence that a person may wish to cite or include in a request for a  
11 contested case proceeding must be included in comments provided on the record of the draft  
12 proposed order public hearing. See OAR 345-027-0367(3)(G) "The Council will not accept or  
13 consider any further public comment on the request for amendment or on the draft proposed  
14 order after the close of the public hearing." Additionally, to raise an issue in a contested case  
15 proceeding, the issue must be within Council jurisdiction, and the person must have raised the  
16 issue on the record of the public hearing with "sufficient specificity to afford the Council, the  
17 Department, and the certificate holder an adequate opportunity to respond to the issue."<sup>7</sup>  
18

19 To raise an issue with sufficient specificity, a person must have presented facts, on the record  
20 of the public hearing, that support the person's position on the issue. The purpose of OAR 345-  
21 027-0367 is to ensure that the public provides the Department and Council all comments,  
22 including any documents or statutory or regulatory citations, that the public believes are  
23 relevant to the site certificate analysis conducted by the Department and Council at a point in  
24 the process where the Department, Council and certificate holder have "an adequate  
25 opportunity to respond to the issue"(as stated in OAR 345-027-0367(5)(b)) – *i.e.*, at a point  
26 when the Department can address any relevant issues raised by those comments in the  
27 proposed order. Allowing a person requesting a contested case to submit new or additional  
28 documents, information or regulatory citations that might have influenced the Council's  
29 comments regarding a draft proposed order and the Department's preparation of a proposed  
30 order undermines that goal.  
31

32 It is not the Department or Council's position that all information that would be submitted *in* a  
33 contested case proceeding be submitted in comments provided on the record of the draft  
34 proposed order. It is not the Department's intent, nor does the Department have the authority,  
35 to limit the level, type and amount of information that may be submitted in a contested case  
36 proceeding, if requested and granted by Council on a site certificate amendment. A contested  
37 case proceeding is an evidentiary process overseen by an independent hearing officer, whom  
38 has the discretion to allow the introduction of new evidence into the record for the purpose of  
39 evaluating contested case issues.  
40

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<sup>7</sup> OAR 345-027-0371(5)

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 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 Supreme Court. A petition for judicial review must be filed with the Supreme Court within 60 days after the date of service of the Council's final order or within 30 days after the date of a petition for rehearing is denied or deemed denied.<sup>8</sup>

#### **II.D. Applicable Division 27 Rule Requirements**

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

The Type A amendment review process (consisting of OARs 345-027-0359, -0360, -0363, -0365, -0367, -0371 and -0375) is the default amendment review process and shall apply to the Council's review of a request for amendment proposing a change described in OAR 345-027-0350(2), (3), and (4).<sup>9</sup>

#### **III. REVIEW OF THE REQUESTED AMENDMENT**

Under ORS 469.310, the Council is charged with ensuring that the "siting, construction and 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 the amended site certificate "conditions for the protection of the public health and safety, for the time for completion of construction, and to ensure compliance with the standards, statutes and rules described in ORS 469.501 and ORS 469.503."<sup>10</sup> The Council implements this statutory framework by adopting findings of fact, conclusions of law, and conditions of approval concerning the amended facility's compliance with the Council's Standards for Siting Facilities at OAR 345, Divisions 22, 24, 26 and 27.

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

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<sup>8</sup> ORS 469.403 and OAR 345-027-0371(12).

<sup>9</sup> OAR 345-027-0351(2).

<sup>10</sup> ORS 469.401(2).

existing, recommended new, and recommended amended conditions, as applicable), based on the information in the record. After the Council has reviewed the draft proposed order and considered all comments received on the record of the public hearing, the 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 the record of the public hearing, agency consultation, applicant responses to comments, and any Council comments.

### **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);*

*(b) Except as provided in OAR 345-022-0030 for land use compliance and except for those statutes and rules for which the decision on compliance has been delegated by the federal government to a state agency other than the Council, the facility 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 the proposed facility. If the Council finds that applicable Oregon statutes and rules, other than those involving federally delegated programs, would impose conflicting requirements, the Council shall resolve the conflict consistent with the public interest. In resolving the conflict, the Council cannot waive any applicable state statute.*

**\*\*\***

*(4) In making determinations regarding compliance with statutes, rules and ordinances normally administered by other agencies or compliance with requirements of the Council statutes if other agencies have special expertise, the Department of Energy shall consult such other agencies during the notice of intent, site certificate application and site certificate amendment processes. Nothing in these rules is intended to interfere with the state's implementation of programs delegated to it by the federal government.*



**Findings of Fact**

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 certificates.

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 reasonable way to meet the Council standards through mitigation or avoidance of the damage 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 proposed amendments cannot meet an applicable Council standard. Therefore, OAR 345-022-0000(2) and (3) would not apply to this review.

*Certificate Expiration (OAR 345-027-0313)*

ORS 469.370(12) requires the Council to "specify in the site certificate the date by which 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 certificate holder must begin construction on the facility no later than the construction beginning date specified by Council in the site certificate. "Construction" is defined in ORS 469.300(6) and OAR 345-010-0010(12) to mean "work performed on a site, excluding surveying, exploration or other activities to define or characterize the site, the cost of which exceeds \$250,000."

For the Montague Wind Power Facility site certificate, Conditions 24 and 25 establish the construction commencement and completion deadlines for previously approved wind and solar facility components. In RFA5, the certificate holder requests Council amend Conditions 24 and 25 for the proposed new Montague Wind Facility, Montague Solar Facility, and Oregon Trail Solar Facility site certificates, as further described and evaluated below.

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 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 Montague Solar Facility and Oregon Trail Solar Facility site certificates. The certificate holder 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 deadlines established for Phase 2.

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 certificate holders’ request, as follows:

*Montague Wind Power Facility*

Recommended Amended Condition 24: 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; AMD4; AMD5]

~~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]~~

Recommended Amended Condition 25: The certificate holder shall ~~complete~~ complete construction of ~~Phase 1 of~~ the facility by September 14, 2020. 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. [ASC; AMD2; AMD4; AMD5]

~~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]~~

As described above, 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 facility components). The certificate holder requests Council amend Conditions 24 and 25 for the Montague Solar Facility and Oregon Trail Solar Facility site certificates to remove reference to Phase 1 and 2, referring only to the facility, and remove reference to

1 deadlines established for Phase 1 facility components, would be covered under the Montague  
2 Wind Facility site certificate. The Department considers the requested condition amendments  
3 to be administrative in nature – removing reference to deadlines that would no longer apply  
4 based on the allocation of facility components approved in the Final Order on RFA4 (Phase 2) to  
5 proposed new site certificates. Therefore, the Department recommends Council amend the  
6 conditions, consistent with the certificate holders' request, as follows:

7  
8 *Montague Solar Facility and Oregon Trail Solar Facility Site Certificates*  
9

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

16 ~~b~~Begin construction of ~~Phase 2 of~~ the facility by August 30, 2022. The Council may grant an  
17 extension of the deadline to begin construction in accordance with OAR 345-027-0385 or  
18 any successor rule in effect at the time the request for extension is submitted. [AMD4;  
19 AMD5]

20  
21 Recommended Amended Condition 25: The certificate holder shall ~~Complete-complete~~  
22 ~~construction of Phase 1 of the facility by September 14, 2020. Construction is complete~~  
23 ~~when: (1) the facility is substantially complete as defined by the certificate holder's~~  
24 ~~construction contract documents, (2) acceptance testing has been satisfactorily completed~~  
25 ~~and (3) the energy facility is ready to begin continuous operation consistent with the site~~  
26 ~~certificate. The certificate holder shall promptly notify the Department of the date of~~  
27 ~~completion of construction. The Council may grant an extension of the deadline for~~  
28 ~~completing construction in accordance with OAR 345-027-0385 or any successor rule in~~  
29 ~~effect at the time the request for extension is submitted. [ASC; AMD2; AMD4]~~

30 ~~Complete construction of Phase 2 of the facility by [3 years of from the date of construction~~  
31 ~~commencement]. Construction is complete when: (1) the facility is substantially complete~~  
32 ~~as defined by the certificate holder's construction contract documents, (2) acceptance~~  
33 ~~testing has been satisfactorily completed and (3) the energy facility is ready to begin~~  
34 ~~continuous operation consistent with the site certificate. The certificate holder shall~~  
35 ~~promptly notify the Department of the date of completion of construction. The Council may~~  
36 ~~grant an extension of the deadline for completing construction in accordance with OAR 345-~~  
37 ~~027-0385 or any successor rule in effect at the time the request for extension is submitted.~~  
38 [AMD4; AMD5]

39  
40 Council previously imposed Condition 26 requiring that, prior to construction, the certificate  
41 holder notify the Department confirming whether wind turbines previously approved for  
42 construction and operation under the Leaning Juniper II facility site certificate would instead be  
43 constructed and operated under the Montague Wind Power Facility site certificate. On

September 17, 2010, the certificate holder satisfied this condition, confirming that the identified wind turbines would be constructed and operated under the Montague Wind Power Facility site certificate. Because the condition was previously satisfied and no longer provides an applicable requirement, the certificate holder requests, and the Department agrees, that Council remove the condition from each of the proposed amended and new site certificates, as follows:

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

Recommended Deleted Condition 26: ~~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.~~

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

OAR 345-025-0010 establishes “site specific” conditions that the Council may include in site certificate to address issues specific to certain facility types or proposed features of facilities.<sup>11</sup> Pursuant to site specific conditions under OAR 345-025-0010(5), the Council must specify an approved corridor for construction and operation of transmission lines. Council previously imposed Condition 18 in the site certificate, consistent with this requirement. The certificate 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 certificates to be consistent with the segment initiation and termination point for each facility. The certificate holder also requests removal of reference to the length of the transmission line segment applicable to each facility, which based on the intent of OAR 345-025-0010(5) to “specify” an approved corridor, the Department disagrees. Therefore, the Department recommends Council amend Condition 18 as follows:

*Montague Wind Facility*

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, 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~~

---

<sup>11</sup> 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 ~~1~~Montague Wind collector substation to BPA's Slatt Substation as presented in Figure 1 of  
2 the site certificate.

3 [OAR 345-025-0010(5); ASC; AMD4; AMD5]

4  
5 *Montague Solar Facility and Oregon Trail Facility*

6  
7 Recommended Amended Condition 18: OAR 345-025-0010(5): The certificate holder is  
8 authorized to construct a 230-kV transmission line anywhere within the approved corridor,  
9 subject to the conditions of the site certificate. The approved corridor is ½-mile in width and  
10 extends approximately 14 miles from the Phase 2-Montague Solar collector substation to  
11 the ~~Phase 1~~Montague Wind collector substation to BPA's Slatt Substation as presented in  
12 Figure 1 of the site certificate.

13 [OAR 345-025-0010(5); ASC; AMD4; AMD5]

14  
15 OAR 345-025-0006 lists certain mandatory conditions that the Council must adopt in every site  
16 certificate. Mandatory conditions, pursuant to OAR 345-025-0006, were imposed as conditions  
17 within the approved site certificate. Of relevance to this amendment request, Council  
18 previously imposed Condition 27, mirroring OAR 345-025-0006(3)(a), requiring that the  
19 certificate holder design, construct, operate and retire the facility substantially as described in  
20 the site certificate. In RFA5, the certificate holder requests Council amend Condition 27 to be  
21 consistent with facility components to be covered under each proposed new site certificate, as  
22 presented below.

23  
24 *Montague Wind Facility*

25  
26 Recommended Amended Condition 27: The certificate holder shall construct a facility  
27 substantially as described in the site certificate and may select turbines of any type, subject  
28 to the following restrictions and compliance with all other site certificate conditions. Before  
29 beginning construction, the certificate holder shall provide to the Department a description  
30 of the turbine types selected for the facility demonstrating compliance with this condition.

31 For ~~Phase 1~~ facility components:

32 (a) The total number of turbines must not exceed ~~81~~56 turbines.

33 (b) The turbine hub height must not exceed 100 meters and the maximum blade tip height  
34 must not exceed 150 meters.

35 (c) The minimum blade tip clearance must be 14 meters above ground. [Amendment #3]

36 i. ~~For Phase 2 facility components:~~

37 ~~(a) Components may include any combination of wind and solar energy generation~~  
38 ~~equipment, up to 81 wind turbines or the maximum layout (including number~~  
39 ~~and size) of solar array components substantially as described in RFA4.~~

40 ~~(b) The maximum blade tip height must not exceed 597 feet (182 meters). The~~  
41 ~~minimum aboveground blade tip clearance must be 46 feet (14 meters).~~

42 [Final Order on ASC; AMD3; AMD4; AMD5]

*Montague Solar 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.~~

~~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]~~

~~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.~~

The maximum blade tip height must not exceed 597 feet (182 meters). The minimum aboveground blade tip clearance must be 46 feet (14 meters). solar array components using or occupying up to 1,496 acres substantially as approved in Final Order on RFA4 (August 2019) and Final Order on RFA5 (September 2020).

[Final Order on ASC; AMD3; AMD4; AMD5]

*Oregon Trail Solar 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.

~~iii.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]~~

~~iv. For Phase 2 facility components:~~

(a) Components may include any combination of wind and solar energy generation equipment, up to 1681 wind turbines or the maximum layout (including number and size) of solar array components using or occupying up to 1,228 acres substantially as described in RFA4 and approved in the Final Order on RFA4 (August 2019).

(b) The maximum wind turbine blade tip height must not exceed 597 feet (182 meters). The minimum aboveground blade tip clearance must be 46 feet (14 meters).

[Final Order on ASC; AMD3; AMD4; AMD5]

#### *Construction and Operation Rules for Facilities [OAR Chapter 345, Division 26]*

The Council has also adopted rules at OAR Chapter 345, Division 26 to ensure that construction, operation, and retirement of facilities are accomplished in a manner consistent with the protection of public health, safety, and welfare and protection of the environment. These rules include requirements for compliance plans, inspections, reporting and notification of incidents. The certificate holder must construct the facility substantially as described in the site certificate and the certificate holder must construct, operate, and retire the facility in accordance with all applicable rules adopted by the Council in OAR Chapter 345, Division 26.

#### **Conclusions of Law**

Based on the recommended findings of fact and conclusions of law, and subject to compliance 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*



1        *or approval issued to a third party, the Council, to issue a site certificate, must find that*  
2        *the third party has, or has a reasonable likelihood of obtaining, the necessary permit or*  
3        *approval, and that the applicant has, or has a reasonable likelihood of entering into, a*  
4        *contractual or other arrangement with the third party for access to the resource or*  
5        *service secured by that permit or approval.*  
6

7        *(4) If the applicant relies on a permit or approval issued to a third party and the third party*  
8        *does not have the necessary permit or approval at the time the Council issues the site*  
9        *certificate, the Council may issue the site certificate subject to the condition that the*  
10       *applicant shall not commence construction or operation as appropriate until the third*  
11       *party has obtained the necessary permit or approval and the applicant has a contract or*  
12       *other arrangement for access to the resource or service secured by that permit or*  
13       *approval.*  
14

### 15       **Findings of Fact**

16

17       Subsections (1) and (2) of the Council's Organizational Expertise standard require that the  
18       certificate holder demonstrate its ability to design, construct and operate the facility, with  
19       proposed RFA5 modifications, in compliance with Council standards and all site certificate  
20       conditions, and in a manner that protects public health and safety, as well as its ability to  
21       restore the site to a useful, non-hazardous condition. The Council may consider the certificate  
22       holder's experience and past performance in constructing, operating and retiring other facilities  
23       in determining compliance with the Council's Organizational Expertise standard. Subsections (3)  
24       and (4) address third party permits.  
25

26       The changes proposed in RFA5 that could impact Council's previous findings of compliance  
27       under the Organizational Expertise standard include the request for new certificate holders for  
28       the new site certificates proposed for the Montague Solar and Oregon Trail Solar Facilities;  
29       shared use of previously approved related or supporting facilities; impacts to previous  
30       decommissioning estimate and evaluation related to the proposed new switching station; and,  
31       removal of conditions imposed to reduce public health and safety risk from battery component  
32       storage, transport and disposal (due to removal of battery storage as a related or supporting  
33       facility under the amended Montague Wind Power Facility site certificate).  
34

### 35       *Request for New Certificate Holders*

36

37       In RFA5, the certificate holder requests approval to transfer ownership of the Montague Wind  
38       Power Facility site certificate based on the site certificate split, resulting in new certificate  
39       holders for the Montague Solar Facility and Oregon Trail Solar Facility. The current certificate  
40       holder is Montague Wind Power Facility, LLC, a wholly-owned subsidiary of Avangrid  
41       Renewables, LLC. Avangrid Renewables, LLC is the certificate holder owner, and would be  
42       maintained as the certificate holder owner for the new site certificates. Therefore, as described  
43       above, because the owner of the new certificate holders, or the owner of the entity to be in



1 control or possession of the facility would remain Avangrid Renewables, LLC – the existing  
2 certificate holder owner - in accordance with the intent of the language under OAR 345-025-  
3 0006(15), the Department recommends Council find that changes in certificate holder, when  
4 the certificate holder is a sole purpose limited liability company reliant upon its parent  
5 company, and the parent company is the owner of the certificate holder, not to trigger the OAR  
6 345-027-0400 transfer process.

7  
8 In the *Final Order on the ASC*, the Council found Avangrid, or its wholly owned subsidiaries, to  
9 have the organizational expertise to construct, operate and retire energy facilities.<sup>12</sup> The Council  
10 found that the certificate holder had specific qualified and experienced internal personnel for  
11 management and design, construction and operation of the facility as well as would hire only  
12 qualified contractors with direct experience in wind energy facility construction to design and  
13 build the proposed facility.<sup>13</sup> Therefore, the Council found that the certificate holder satisfied  
14 the Council's Organizational Expertise Standard. The Council's previous findings and conclusions  
15 are incorporated by this reference.

16  
17 The new LLCs proposed as certificate holders of the Montague Solar and Oregon Trail Solar  
18 Facilities would not affect the current certificate holder's organizational expertise, or impact  
19 the Council's previous findings. To support Council's review of the new LLCs, articles of  
20 organization and proof of registration to do business were provided in RFA5 Attachment 5. In  
21 addition, Avangrid Renewables, LLC's in-house legal Counsel, Jeffrey Durocher, provided  
22 confirmation that the new LLCs have legal authority to construct and operate energy facility  
23 components to be included in the new site certificates without violating articles of  
24 incorporation or other similar agreement (RFA5 Attachment 6). Based on review of the articles  
25 of organization and legal opinion provided in RFA Attachment 5 and 6, the Department  
26 recommends Council approve the new LLCs as certificate holders for the Montague Solar and  
27 Oregon Trail Solar Facility site certificates.

### 28 29 *Third-Party Permits*

30  
31 In RFA5, the certificate holder represents that previously approved related or supporting  
32 facilities, including collector substations, O&M building, access road, temporary staging areas,  
33 battery storage system and 230 kV transmission line would be shared between each or by two  
34 site certificates. The Department recommends Council evaluate facility components shared  
35 between site certificate/certificate holders to be substantially similar to a third-party resource.

36  
37 In RFA5, the certificate holder does not address the mechanism or agreement that would be  
38 executed or implemented between LLCs for the sharing of the above-referenced facility  
39 components. Because the new LLCs (new certificate holders) are wholly owned indirect  
40 subsidiaries of Avangrid Renewables, which acts as the certificate holder owner and entity with

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<sup>12</sup> *Final Order on the Application* at 14-15.

<sup>13</sup> *Id.*

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 entering into a contractual or other arrangement for access to the shared facilities.

Nonetheless, the Department recommends Council adopt the following condition, which ensures that access to the facility resources is secured prior to sharing or of operation of shared facilities, within the amended and new site certificates. The Department also recommends Council impose requirements in the same condition, based on shared facilities, to ensure full coverage of the site restoration compliance obligation, as required per Sub(1) of the standard, which obligates each certificate holder to notify the Department, and evaluate, any substantial changes to shared related or supporting facilities or of termination or ceasing of facility operations:

*Montague Wind Power Facility*

**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 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.

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.

*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. 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 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.

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.

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 duration of facility operation.

#### *Public Health and Safety*

Council previously imposed Conditions 116 and 117 establishing requirements for storage, transport and disposal of battery storage equipment and related waste. In RFA5, the certificate 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 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 maintained. Based on the certificate holder's proposed reallocation of related or supporting facilities under the new site certificates, the Department recommends Council delete Conditions 116 and 117 from the amended Montague Wind Power Facility site certificate, as follows:

#### *Montague Wind Power Facility*

Recommended Deleted Condition 116: ~~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.~~

~~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. 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. [AMD4]~~

~~Recommended Deleted Condition 117: 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]~~

#### *Ability to Restore the Site to a Useful, Non-Hazardous Condition*

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 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 demolition debris to a licensed landfill; and recycling of steel, concrete, and other components to the extent possible. These tasks and actions are consistent with those identified for previously approved facility components, including collector substations and O&M building. Based on similarities in components of a switching station compared to previously approved collector substations and O&M buildings, the Department recommends Council find that the new switching station would not impact the certificate holder's ability to restore the site to a useful, non-hazardous condition, as further evaluated in Section III.A,5 *Retirement and Financial Assurance* of this order, in which the Department recommends that Council find that the certificate holder would continue to be able to comply with the Retirement and Financial Assurance standard.

#### **Conclusions of Law**

Based on the evidence in the record, and subject to compliance with the existing and recommended new and deleted conditions, the Department recommends that the Council find that the certificate holder would continue to satisfy the requirements of the Council's Organizational Expertise standard.

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

2  
3         *To issue a site certificate, the Council must find that the design, construction and*  
4         *operation of the facility, taking into account mitigation, are not likely to result in a*  
5         *significant adverse impact to soils including, but not limited to, erosion and chemical*  
6         *factors such as salt deposition from cooling towers, land application of liquid effluent,*  
7         *and chemical spills.*

8  
9     **Findings of Fact**

10  
11    The Soil Protection standard requires the Council to find that, taking into account mitigation,  
12    the design, construction and operation of a facility or proposed amendment would not be likely  
13    to result in a significant adverse impact to soils.

14  
15    The analysis area for potential impacts to soils, as defined in the Project Order, is the area  
16    within the site boundary. Land uses within the analysis area include private agriculture  
17    generally used for dryland wheat production or rangeland.

18  
19    *Potential Significant Adverse Impacts to Soil*

20  
21    In RFA5, the certificate holder proposes to expand the solar microsite area from 1,189 to  
22    2,275 acres. The additional 1,536 acres would include soil units consisting primarily of Ritzville  
23    silt loam with slopes ranging from zero to 12 percent, and a small area of Willis silt loam with 5  
24    to 12 percent slopes. Potential impacts from construction and operation of previously approved  
25    solar facility components within the proposed expanded area would include erosion. Council  
26    previously imposed Condition 80, which requires that the certificate holder comply with erosion  
27    control measures required by the Facility's NPDES 1200-C construction permit. Based on  
28    compliance with the existing condition, the Department recommends Council continue to find  
29    that the facility, with proposed RFA5 modifications, would minimize soil erosion impacts.

30  
31    In Condition 80, Council previously imposed a subpart, consistent with the version of the Land  
32    Conservation and Development Commissions' (LCDC) OAR 660-033-0130(38)(f)(B) in place in  
33    September 2019, which required solar facilities on arable land to develop and implement a  
34    topsoil management plan. LCDC adopted and implemented a rule change, whereby the topsoil  
35    management requirement was removed. Therefore, the certificate holder requests that Council  
36    amend Condition 80 in the proposed amended and new site certificates to align with the rule  
37    change, as presented below:

38  
39    *Montague Wind Power, Montague Solar and Oregon Trail Solar Facilities*

40  
41     Recommended Amended Condition 80:

- 42         i.   The certificate holder shall conduct all construction work in compliance with an  
43         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.

~~ii. Before beginning construction of Phase 2 wind energy generation components, the certificate holder shall submit to the Department and Gilliam County Planning Director for review and approval a topsoil management plan including how topsoil will be 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 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.~~

ii. 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.  
[AMD4; AMD5]

### **Conclusions of Law**

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

#### **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:*

(a) *The applicant elects to obtain local land use approvals under ORS 469.504(1)(a) and the Council finds that the facility has received local land use approval under the acknowledged comprehensive plan and land use regulations of the affected local government; or*

(b) *The applicant elects to obtain a Council determination under ORS 469.504(1)(b) and the Council determines that:*

(A) *The proposed facility complies with applicable substantive criteria as described in section (3) and the facility complies with any Land Conservation*

1                   *and Development Commission administrative rules and goals and any land*  
2                   *use statutes directly applicable to the facility under ORS 197.646(3);*

3  
4                   *(B) For a proposed facility that does not comply with one or more of the*  
5                   *applicable substantive criteria as described in section (3), the facility*  
6                   *otherwise complies with the statewide planning goals or an exception to any*  
7                   *applicable statewide planning goal is justified under section (4); or*

8  
9                   *(C) For a proposed facility that the Council decides, under sections (3) or (6), to*  
10                  *evaluate against the statewide planning goals, the proposed facility complies*  
11                  *with the applicable statewide planning goals or that an exception to any*  
12                  *applicable statewide planning goal is justified under section (4).*

13                  \*\*\*

14                  *(4) The Council may find goal compliance for a proposed facility that does not otherwise*  
15                  *comply with one or more statewide planning goals by taking an exception to the*  
16                  *applicable goal. Notwithstanding the requirements of ORS 197.732, the statewide*  
17                  *planning goal pertaining to the exception process or any rules of the Land*  
18                  *Conservation and Development Commission pertaining to the exception process, the*  
19                  *Council may take an exception to a goal if the Council finds:*

20                  *(a) The land subject to the exception is physically developed to the extent that the*  
21                  *land is no longer available for uses allowed by the applicable goal;*

22                  *(b) The land subject to the exception is irrevocably committed as described by the*  
23                  *rules of the Land Conservation and Development Commission to uses not allowed*  
24                  *by the applicable goal because existing adjacent uses and other relevant factors*  
25                  *make uses allowed by the applicable goal impracticable; or*

26                  *(c) The following standards are met:*

27                    *(A) Reasons justify why the state policy embodied in the applicable goal should*  
28                    *not apply;*

29                    *(B) The significant environmental, economic, social and energy consequences*  
30                    *anticipated as a result of the proposed facility have been identified and*  
31                    *adverse impacts will be mitigated in accordance with rules of the Council*  
32                    *applicable to the siting of the proposed facility; and*

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

35                  \*\*\*

## 36                  **Findings of Fact**

37  
38                  The Land Use standard requires the Council to find that a facility, with proposed changes,  
39                  complies with the statewide planning goals adopted by the Land Conservation and  
40                  Development Commission (LCDC). Under ORS 469.504(1)(b)(A), the Council may find  
41                  compliance with statewide planning goals if the Council finds that a facility, with proposed  
42                  changes, “complies with applicable substantive criteria from the affected local government’s  
43                  acknowledged comprehensive plan and land use regulations that are required by the statewide

1 planning goals and in effect on the date the application is submitted.” RFA5 was received on  
2 April 27, 2020.<sup>14</sup>

3  
4 The analysis area for potential land use impacts, as defined in the Project Order, is the area  
5 within and extending ½-mile from the site boundary.<sup>15</sup>

6  
7 In RFA5, the certificate holder seeks approval to expand the previously approved solar  
8 micrositing area, from 1,189 to 2,725 acres, to allow additional flexibility in the layout of  
9 previously approved solar facility components.<sup>16</sup> The solar micrositing area would be split  
10 between the new site certificates for the Montague Solar Facility and Oregon Trail Solar Facility.  
11 The Montague Solar Facility solar micrositing area would include 1,496 acres (1,189 acres of  
12 previously approved micrositing area, plus the proposed addition of 307 acres). The Oregon  
13 Trail Solar Facility solar micrositing area would include up to 1,228 acres; this solar micrositing  
14 area would be located within the approved site boundary, but has not been previously  
15 evaluated as a solar micrositing area. RFA5 also seeks approval for construction and operation  
16 of an approximately 2-acre switching station within the Oregon Trail Solar Facility solar  
17 micrositing area, near Bottemillier Lane; and use of an alternative route for approximately 3.6  
18 miles of the previously approved 14-mile 230 kV transmission line route (alternative 230 kV  
19 route), to be shared by the Montague Solar Facility and Oregon Trail Solar Facility site  
20 certificates.

21  
22 Based on the proposed expansion of solar micrositing area, the certificate holder seeks Council  
23 approval of an exception to the statewide policy embodied in Goal 3, *Agricultural Lands*, for the  
24 use of more than 12 acres of high-value farmland and more than 20 acres of arable land by  
25 previously approved solar facility components. Council previously granted a reasons exception  
26 in the September 2019 Final Order on RFA4, based on solar photovoltaic energy generation  
27 equipment on up to 1,189 acres high value and arable lands. In this order, the Department  
28 presents the exception request as an amendment to Council’s previously Goal 3 exception,  
29 which if taken by Council for RFA5, would then apply to the Montague Wind Solar Facility and  
30 Oregon Trail Solar Facility site certificates.

---

<sup>14</sup> 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.

<sup>15</sup> 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.

<sup>16</sup> MWPAMD4 Final Order on RFA4. 2019-09.



### III.A.4.1 Local Applicable Substantive Criteria

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 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 criteria for which the certificate holder must comply are established in the Gilliam County Zoning and Land Development Ordinance (GCZO) and Gilliam County Comprehensive Plan (GCCP), as updated and amended in 2017. The applicable substantive criteria from GCZO and goals and policies from GCCP are presented below in Table 1, *Gilliam County Applicable Substantive Criteria*.

**Table 1: Gilliam County Applicable Substantive Criteria**

| <b>Gilliam County Zoning and Land Development Ordinance (GCZO)</b> |  |
|--|--|
| <i>Article 4 – Use Zones</i>                                       |  |
| 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                           |
| <i>Article 7 – Conditional Uses</i>                                |  |
| 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             |
| <i>Article 8 – Supplementary Provisions</i>                        |  |
| Section 8.030  | Clear Vision Areas                                       |
| Section 8.040  | Outdoor Lighting Standards                               |
| Section 8.050  | Sign Regulations   |
| Section 8.100  | Off-Street Parking Requirements                          |
| 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                                       |

**Table 1: Gilliam County Applicable Substantive Criteria**

|  |  |
|--|--|
| Section L  | Approval Standards   |
| Section M  | The Development Will Not Result In Traffic Volumes that Will Reduce the Performance Standard |
| Section N  | The Development Will Not Adversely Affect Agricultural or Forestry Uses                      |
| <b>Gilliam County Comprehensive Plan (GCCP)</b>                    |  |
| (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) Transportation – Policies 10 and 14                      |  |
| (Goal 13) Energy Conservation – Policy 3                           |  |

The Department reviewed the applicable substantive criteria presented in the table above and the changes proposed in RFA5 to provide recommendation of compliance to Council. As described throughout this order, the certificate holder proposes to expand the solar micro siting area by 1,535 acres to allow additional flexibility in layout of previously approved solar facility components, as well as a new switching station and alternate 230 kV route. These specific facility modifications could change Council's previous findings of compliance and therefore are evaluated in the section below.

### **Gilliam County Zoning Ordinance**

The changes proposed in RFA5 are evaluated under the following land use categories established in the Gilliam County Zoning Ordinance (GCZO):

- Commercial Utility Facilities for the Purpose of Generating Power for Public Use by Sale (applies to expanded solar micro siting area, to be split and included in the Montague Solar Facility and Oregon Trail Solar Facility site certificates – the solar micro siting area would include any layout of previously approved solar photovoltaic power generation equipment including solar modules and other accessory equipment like a battery storage system, trackers, posts, cabling, inverters, transformers, collection system, collection substations, access roads, perimeter fencing, and gates, temporary construction areas; and, proposed new switching station associated with Oregon Trail Solar Facility)
- Utility Facilities Necessary for Public Service (alternate 230 kV route)

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

GCZO Article 4 Use Zones

*GCZO Section 4.020: EFU Exclusive Farm Use*

*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.*

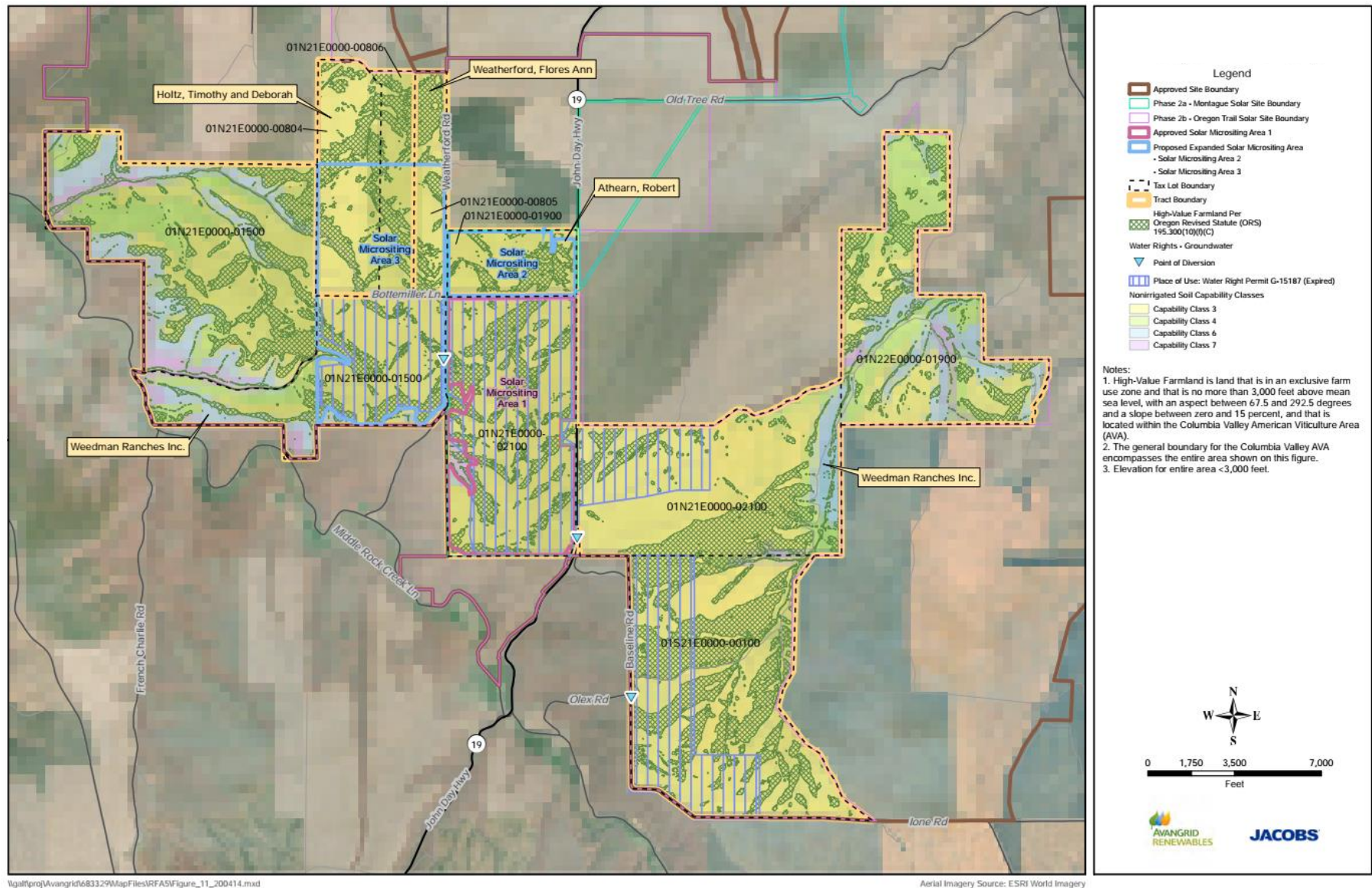
GCZO Section 4.020(A) applies to permitted uses, as defined in GCZO Section 4.020(B) – (G), on high value farmland, and requires compliance with applicable GCZO Section 4.020(B) – (G) and OAR 660-030-0130 provisions.

High-value farmland is defined in ORS 195.300(10) and implemented in the Land Conservation and Development Commissions' administrative rule OAR 660-033-0020(8)(a), where there are over 15 combinations of environmental conditions (e.g. soil, water, agricultural use) that would define farmland as "high-value." In RFA5, the certificate holder proposes to expand the previously approved solar micrositing area, from 1,189 to 2,725 acres. Within the additional 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, Columbia Valley Viticulture area meeting certain requirements for elevation, slope, and aspect (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).<sup>17</sup> In RFA5 Figure 11, the certificate holder presents the location of the proposed solar micrositing areas overlain with Columbia Valley Viticulture areas meeting the elevation, slope and aspect under ORS 195.300(10)(f)(C), which is also represented in Figure 4: *Proposed Solar Micrositing Expansion Areas, High-Value Farmland, and Arable Land* below.

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<sup>17</sup> 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**



Based on the certificate holder's mapping and identification of OAR 195.300(10)(f)(C) high value farmland areas within the proposed solar micrositings expansion areas and the identified land use categories permissible within EFU-zoned land (commercial utility facilities..), the 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 Section 4.020(C) and (D) and OAR 660-030-0130 provisions. The evaluation of compliance with GCZO Section 4.020(C) and (D) and OAR 660-030-0130 provisions is presented in this section of the order.

*C. Planning Director Review. In the EFU zone, the following uses and their accessory uses may be permitted if determined by the Planning Director to satisfy the applicable criteria 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 in the manner described in Section 11.140. These uses may be referred to the Planning Commission for review if deemed appropriate by the Planning Director. (emphasis added)*

#### *24. Utility facilities necessary for public service*

GCZO Section 4.020(C)(24) identifies utility facilities "necessary" for public service as a permissible use on high value farmland within EFU zoned land, subject to Planning Director Review. Pursuant to 215.283(1)(c)(B), a transmission line is a utility necessary for public service if it is an associated transmission as defined in ORS 215.274.

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 previously approved route or the previously approved route with an alternative route segment. The previously approved segment 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. The proposed alternate route segment would exit east out of the Montague Solar collector substation to a 90-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 turn east towards the Montague Wind collector substation (see Figure 7: *Approved and Proposed Alternate 230 kV Transmission Line Route*).

As provided in Section III.A.4.2 *Directly Applicable State Statutes*, the proposed alternate 230 kV 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 215.274 are not applicable to the proposed alternative 230 kV route because, as a utility facility 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. Therefore, the Department recommends Council find that the proposed alternate 230 kV route

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

3  
4 *GCZO Section 4.020(D): Conditional Uses Permitted. In the EFU Zone, the following uses and*  
5 *their accessory uses may be permitted, either by a Type I or a Type II Conditional Use Permit*  
6 *to satisfy the applicable criteria and procedures set forth in Section 7.010. The appropriate*  
7 *review criteria are identified for each use.*

8 \*\*\*

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

15  
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  
21 Goal 3 is taken. GCZO Section 4.020(D)(11) also requires compliance with GCZO Section  
22 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  
26 to expand the solar micrositing area by approximately 1,535 acres to allow additional flexibility  
27 in layout of previously approved solar energy generation equipment, and proposes a new  
28 switching station. The proposed switching station would collect and transmit energy via a  
29 previously approved aboveground 34.5 kV collector line from the Oregon Trail Solar Facility to  
30 the Montague Solar collector substation, which would then be transmitted via 34.5 collector  
31 line to the Montague Wind collector substation and then to BPA’s Slatt Substation for grid  
32 integration. In RFA5, the certificate holder represents the proposed switching station as  
33 necessary grid interconnection equipment considered part of the photovoltaic solar power  
34 generation facility under -0130(38)(f). Based on the operational function and purpose of the  
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

a commercial agricultural enterprise.<sup>18</sup> The proposed solar microsites for the Montague Solar Facility and Oregon Trail Solar Facility could preclude up to 307 and 1,223 acres, respectively, of arable land from use as a commercial agricultural enterprise.<sup>19</sup> Therefore, because the proposed solar microsites may preclude more than 12 acres of high value farmland and 20 acres of arable land from use as a commercial agricultural enterprise, the certificate holder would not comply with the GCZO Section 4.020(D)(11) acreage limitation and a Goal 3 exception would be needed. In RFA5, the certificate holder requests Council review and approval of a Goal 3 exception, as evaluated in Section III.A.4.2 below.

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.

#### *GCZO SECTION 4.020(H) EFU SPECIFIC REVIEW CRITERIA*

*1. The use may be approved only where the County finds that the use will not:*

- a. Force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use; or*
- b. Significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use.*

GCZO Section 4.020(H) establishes review criteria for specific conditional uses within EFU zoned land, including commercial utility facilities. The review criteria include a demonstration that the proposed RFA5 facility modifications would not force a significant change or significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or 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.<sup>20</sup>

As presented above, the proposed expansion of solar microsites for the Montague Solar 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 holder requests that because the site boundary, which establishes the analysis area, would not change as a result of the proposed changes in solar microsites area, that the Council find that there are no substantive changes to the evaluation of GCZO Section 4.020(H) from Council's review of RFA4 and approval of the Final Order on RFA4 in September 2019. The Department agrees that, because the analysis area has not changed as a result of proposed RFA5 facility modifications and based on recent timing of Council's review (2019), the Council should rely on its previous reasoning and analysis to make findings of compliance for this criteria, as summarized below.

---

<sup>18</sup> MWPAMD5. RFA5 Table 8. 2020-05-29.

<sup>19</sup> *Id.*

<sup>20</sup> MWPAMD4. Exhibit K Figure K-3A and K-3B. 2017-11-22.

1 *Accepted Farm Practices*

2  
3 The certificate holder previously described that agricultural use on surrounding lands includes  
4 dryland wheat farming with limited irrigated farming and some grazing on rangeland (there is  
5 no irrigated farmland within the proposed solar micrositing expansion areas). Dryland wheat  
6 crop land is periodically left fallow (plowed but not planted) between plantings. Accepted farm  
7 practices on surrounding lands devoted to farm use, verified by the certificate holder during  
8 2017 surveys, include soil preparation in the spring and fall, sowing, fertilizing, pest and weed  
9 management, and harvesting.

10  
11 *Potential Impacts to Accepted Farm Practices*

12  
13 The certificate holder previously identified that potential impacts to accepted farm practices  
14 from use of solar micrositing areas during construction could include:

- 15  
16
  - Temporary, but minimal, crop yield interference from weed dispersal during ground
  - 17 disturbing activities
  - 18 • Changes to access points for routes to farm fields to accommodate construction
  - 19 activities
  - 20 • Delays in delivery of farm products or increased time to access farm fields due to
  - 21 increased truck traffic on Oregon Highway 19 (OR 19)
  - 22 • Soil erosion and compaction from ground disturbance
  - 23 • Decreased crop yield productivity if construction disturbance occurs prior to harvest

24  
25 The certificate holder previously identified that potential impacts to accepted farm practices  
26 from use of solar micrositing areas during operation could include:

- 27  
28
  - Permanent changes to access points or routes to farm fields
  - 29 • Modified planting and harvest practices to avoid solar facility components
  - 30 • Varying application of fertilizers and other products to crops
  - 31 • Use, cover or occupation of up to 1,189 acres on farmland – which, as a result of
  - 32 RFA5, would increase to 2,725 acres of farmland

33  
34 Council previously imposed several conditions that would minimize potential impacts to  
35 accepted farm practices within the surrounding area. Previously imposed conditions are  
36 summarized below:

- 37  
38
  - Condition 38 requires that, during construction and operation, the certificate holder
  - 39 consult with area landowners and lessees and implement measures to reduce or
  - 40 avoid adverse impacts to farm practices
  - 41 • Condition 39 requires that the certificate holder design and construct the facility to
  - 42 minimize impacts to farm practices



- Condition 43 requires that, during construction and operation, a Weed Control Plan be implemented
- Condition 73 requires that, during construction, traffic control measures be implemented and notification of activities and schedule be provided to adjacent landowners
- Condition 74 requires that, during construction, County roads not be used for equipment and machinery parking
- Condition 80 requires that, during construction, erosion and sediment control measures be implemented to minimize erosion and sediment impacts to adjacent land use
- Condition 81 requires that, during construction, truck traffic be limited to improved road surfaces, to the extent practicable, to minimize unnecessary soil compaction
- Condition 82 requires that, during construction, best management practices (such as watering) be implemented for dust control
- Condition 92 requires that, following completion of construction, temporarily impacted agricultural areas be revegetated

The certificate holder proposes to administratively amend Condition 38 and 39, to remove reference to Phase 1 and Phase 2, in the amended Montague Wind Power Facility site certificate and proposed new site certificates for the Montague Solar Facility and Oregon Trail Solar Facility, as presented below.

#### *Montague Wind Power Facility*

Recommended Amended Condition 38: The certificate holder shall:

- i. ~~c~~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.
- ii. ~~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 micro-siting 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; AMD4; AMD5]

Recommended Amended Condition 39: The certificate holder shall design and construct:

- i. ~~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

1 along the margins of cultivated areas to reduce the potential for conflict with farm  
2 operations. [Final Order on ASC; AMD4; AMD5]

3 ~~ii. Phase 2 of the facility to minimize the permanent impacts to agricultural land,~~  
4 ~~including to the extent practicable, using existing access roads, co-locating facilities,~~  
5 ~~reducing road and transmission line/collector line lengths, and designing facility~~  
6 ~~components to allow ongoing access to agricultural fields.~~  
7 ~~[Final Order on ASC; AMD4]~~

8  
9 *Montague Solar Facility and Oregon Trail Solar Facility*

10  
11 Recommended Amended Condition 38: The certificate holder shall:

- 12 i. ~~c~~Consult with area landowners and lessees during construction and operation of  
13 ~~Phase 1 of the facility and implement measures to reduce and avoid any adverse~~  
14 ~~impacts to farm practices on surrounding lands and to avoid any increase in farming~~  
15 ~~costs.~~  
16 ii. ~~Consult with area landowners and lessees during construction and operation of~~  
17 ~~Phase 2 of the~~ facility and implement measures to reduce and avoid any adverse  
18 impacts to ongoing farm practices on surrounding lands, including coordination with  
19 the landowner of the solar micrositing area to ensure that the final solar array layout  
20 does not prevent the landowner from maximizing agricultural production on the  
21 land not occupied by the solar array.  
22 [Final Order on ASC; AMD4; AMD5]

23  
24 Recommended Amended Condition 39: The certificate holder shall design and construct:

- 25 ~~iii. Phase 1 of the facility using the minimum land area necessary for safe construction~~  
26 ~~and operation. The certificate holder shall locate access roads and temporary~~  
27 ~~construction laydown and staging areas to minimize disturbance of farming practices~~  
28 ~~and, wherever feasible, shall place turbines and transmission interconnection lines~~  
29 ~~along the margins of cultivated areas to reduce the potential for conflict with farm~~  
30 ~~operations. [Final Order on ASC; AMD4]~~  
31 ~~iv.ii. Phase 2 of the~~ facility to minimize the permanent impacts to agricultural land,  
32 including to the extent practicable, using existing access roads, co-locating facilities,  
33 reducing road and transmission line/collector line lengths, and designing facility  
34 components to allow ongoing access to agricultural fields.  
35 [Final Order on ASC; AMD4; AMD5]

36  
37 The Department recommends Council administratively amend Conditions 38 and 39, based on  
38 the certificate holder's representations, to align with proposed RFA5 facility modifications.

39  
40 The Council previously found that solar micrositing areas approved for the Montague Wind  
41 Facility would not force a significant change in accepted farming practices because it would not  
42 change or preclude access to farm operations on surrounding lands or landowners, would not  
43 necessitate relocating any existing access routes or farm infrastructure, and would not result in

changes to the practices for planting, irrigating, fertilizing, or harvesting. In RFA5, the certificate holder commits to designing the solar microsites areas in order to provide farm access through the site to adjoining fields, and designing perimeter gates to accommodate pass-through of farm equipment. Because the proposed expansion of solar microsites area would include design measures to minimize impacts to field access and farm equipment operation, and based on compliance with the above-referenced and recommended amended conditions, the Department recommends Council find that the certificate holder would satisfy the GCZO Section 4.020(H)(1)(a) review criterion.

#### *Potential Impacts to Cost of Accepted Farm Practices*

The certificate holder previously described that use of the approved solar microsites areas 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 devoted to farm use. Based on the certificate holder's representations, Council previously found that use of up 1,189 acres on high-value farmland and arable land would not increase the cost of accepted farm practices. For the same reasons previously relied upon, the Department recommends Council find that the proposed increase in solar microsites area from 1,189 to 2,725 acres on high value farmland and arable land would not increase the cost of accepted farm practices and would continue to satisfy the GCZO Section 4.020(H)(1)(b) review criterion.

#### *GCZO SECTION 4.020(J): Property Development Standards*

*PROPERTY DEVELOPMENT STANDARDS. In the EFU Zone, the following standards apply to residential and nonresidential development.*

*1. Building Height. No limitations.*

*2. Setbacks*

*a. The front and rear yard setbacks from the property line shall be 25 feet.*

*b. The side yard setbacks from the property line shall be 25 feet.*

GCZO Section 4.020(J) establishes setback standards for front, rear and side yards for residential and nonresidential development within EFU zoned land. As described in GCZO Article 4, nonresidential development includes new construction and substantial improvement of any commercial, industrial or other nonresidential structure.

The proposed expansion of the solar microsites area from 1,189 to 2,725 acres would include nonresidential structures – previously approved collector substations, O&M building and battery storage system, and proposed switching station. Council previously imposed Condition 42 to align with GCZO Section 4.020(J), which would continue to apply under the amended and new site certificates proposed in RFA5. In RFA5, the certificate holder requests Council administratively amend these conditions based on allocation of wind and solar facility components under three separate site certificates.

*Montague Wind Power Facility*

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-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 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.

~~(l) 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.~~

~~(l) 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]~~

*Montague Solar Facility*

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

(m) 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.

~~(n) 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.~~

~~(o) 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.~~

~~(p) 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.~~

~~(q) 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.~~

~~(r) 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.~~

~~(s)~~(n) 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.

~~(t)~~(o) 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.

~~(u) 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]~~

~~(v) 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]~~

~~(w)~~(p) 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.

~~(x)~~(q) 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.

~~(y)~~(r) 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]

#### *Oregon Trail Solar Facility*

Recommended 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-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 facility~~the Montague Solar O&M building to the nearest edge of any public road

- 1 right-of-way or railroad right-of-way or the nearest boundary of the certificate  
2 holder's lease area.
- 3 (h) The certificate holder shall maintain a minimum distance of 50 feet measured from  
4 any substation to the nearest edge of any public road right-of-way or railroad right-  
5 of-way or the nearest boundary of the certificate holder's electrical substation  
6 easement or, if there is no easement, the nearest boundary of the certificate  
7 holder's lease area.
- 8 (i) Where (a) does not apply, the certificate holder shall maintain a minimum of 110  
9 percent of maximum blade tip height, measured from the centerline of the turbine  
10 tower from any overhead utility line. [Amendment #1]
- 11 (j) Where (a) does not apply, the certificate holder shall maintain a minimum of 150  
12 percent of maximum turbine height from blade tip height, measured from the  
13 centerline of the turbine tower from federal transmission lines, unless the affected  
14 parties agree otherwise. [Amendment #1]
- 15 (k) The certificate holder shall maintain a minimum distance of 25 feet measured from  
16 the fence line of the solar array to the nearest property line.
- 17 (l) The certificate holder shall maintain a minimum distance of 25 feet measured from  
18 the front, rear and side yard of the battery storage system site to the nearest  
19 property line.
- 20 (m) ~~For Phase 2 facility components, all wind~~Wind turbines must be setback a minimum  
21 distance of 656 feet (200 meters), measured from the centerline of the turbine  
22 tower to the nearest edge of the breaks of Rock Creek Canyon. [AMD4; AMD5]

23  
24 Based on compliance with recommended amended Condition 42, the Department recommends  
25 Council find that any solar facility components to be located within the proposed expanded  
26 RFA5 solar micrositing area, evaluated as nonresidential development, would satisfy the GCZO  
27 Section 4.020(J) property development standards.

28  
29 Article 7: Conditional Uses

30  
31 *GCZO Section 7.010: Authorization to Grant or Deny Conditional Uses*

32  
33 GCZO Section 7.010 establishes general approval criteria and conditions that may be applied to  
34 conditional uses, regardless of the zone.

35  
36 *GCZO SECTION 7.010(A): GENERAL APPROVAL CRITERIA AND CONDITIONS*

- 37  
38 *A. In addition to criteria, standards and conditions that may be set forth in a specific*  
39 *Zone, this Article, or other regulations applicable to a specific Conditional Use shall*  
40 *not be approved or permitted unless the following criteria are met. A Conditional Use*  
41 *may be approved on the Condition or Conditions that the applicant obtain and*  
42 *maintain compliance with other permits and approvals required.*  
43

1                   a. *The proposed use shall be in compliance with the applicable Comprehensive*  
2                   *Plan designation and policies.*

3  
4 GCZO Section 7.010(A)(1)(a) requires a demonstration that a proposed use would be in  
5 compliance with the applicable designations and policies of the GCCP. The evaluation of  
6 applicable GCCP goals and policies is presented below, where the Department recommends  
7 that the Council find that the proposed RFA5 facility modifications would be consistent with the  
8 GCCP. Therefore, the Department recommends Council find that the proposed RFA5 facility  
9 modifications would satisfy the GCZO 7.010(A)(1)(a) general approval criterion.

10  
11                   b. *As applicable, sewage and/or solid waste disposal methods shall be provided*  
12                   *in compliance with applicable local, State and Federal regulations.*

13  
14 GCZO Section 7.010(A)(1)(b) requires a demonstration that sewage and/or solid waste disposal  
15 methods of a proposed use would comply with applicable local, State and Federal regulations.

16  
17 Construction and operation of solar facility components within the proposed expanded solar  
18 micrositing area would generate sanitary and solid waste. As previously described in RFA4  
19 Exhibit U, onsite sanitary and solid waste generated during construction and operation would  
20 be disposed of offsite by a licensed contractor. Wastewater from O&M building sanitation  
21 facilities would be managed by an Oregon Department of Environmental Quality (ODEQ)-  
22 permitted septic system. Council previously imposed Condition 110 requiring that the  
23 certificate holder discharge sanitary wastewater generated at the O&M building to a licensed,  
24 on-site septic system in compliance with state permit requirements. Condition 110, as  
25 previously imposed, also requires the certificate holder to design the septic system for a  
26 discharge capacity of less than 2,500 gallons per day. The certificate holder previously  
27 confirmed that wastewater generated at the O&M facility during facility operation would not  
28 exceed 2,500 gallons of discharge per day.<sup>21</sup> Council also previously imposed Condition 28  
29 requiring that the certificate holder and its contractors obtain all necessary federal, state and  
30 local permits. Therefore, the Department recommends, based on compliance with Condition 28  
31 and 110, Council find that the certificate holder would satisfy the GCZO Section 7.010(A)(1)(b)  
32 general approval criterion.

33  
34                   c. *Proposal shall be found to be in compliance or conditioned upon compliance*  
35                   *with applicable air and noise pollution standards.*

36  
37 GCZO Section 7.010(A)(1)(c) requires a demonstration that a proposed use would comply, or  
38 with conditions would comply, with applicable air and noise pollution standards.

39  
40 Applicable air and noise pollution standards are established in ODEQ's OAR 340-208-0210,  
41 *Visible Emissions and Nuisance Requirements* and 340-035-0035, *Noise Control Requirements*,

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<sup>21</sup> MWPAMD4 Exhibits Q-DD Final 2019-04-05, p. V-6.



1 respectively. ODEQ's visible emissions standard requires implementation of reasonable  
2 precautions to prevent particulate matter from becoming airborne; ODEQ's noise control  
3 regulation requires compliance with an ambient degradation and maximum allowable noise  
4 standard, as evaluated in Section III.A.10.1 *Noise Control Regulations* of this order.

5  
6 Construction of solar facility components within the proposed expanded solar microsites area  
7 would generate particulate matter (dust) emissions during ground disturbing activities. Council  
8 previously imposed Condition 82 requiring that, during construction, the certificate holder  
9 implement best management practices, such as watering roads and disturbed soil areas, to  
10 minimize visible emissions, consistent with OAR 340-208-0210. Condition 82 would continue to  
11 apply to construction activities within the proposed expanded solar microsites area and would  
12 support OAR 340-208-0210 compliance. Because operational activities within the proposed  
13 expanded solar microsites area would not include ground disturbing activities, particulate  
14 matter emissions would not be expected and therefore OAR 340-208-0210 would not apply.

15  
16 Construction and operation of solar facility components within the proposed expanded solar  
17 microsites area would generate noise. Construction related noise is exempt from OAR 340-  
18 035-0035. Operational noise and compliance with OAR 340-035-0035 is evaluated in Section  
19 III.A.10.1. *Noise Control Regulation*, where the Department recommends Council find that the  
20 certificate holder would, based on compliance with existing conditions, continue to comply with  
21 OAR 340-035-0035.

22  
23 Based on the analysis described above, the Department recommends Council find that the  
24 facility, with proposed RFA5 modifications, would continue to satisfy the GCZO Section  
25 7.010(A)(1)(c) general approval criterion.

26  
27 *d. Required access shall be legally established, available, and adequate to serve*  
28 *the proposed use or provisions to provide such evident.*

29  
30 GCZO Section 7.010(A)(1)(d) requires a demonstration that access necessary to serve the  
31 proposed use be legally established, available and adequate. The Department interprets this  
32 condition of approval as applicable to access roads to the proposed expanded and new solar  
33 microsites areas, as access would be necessary to serve the use.

34  
35 Council previously imposed Conditions 70 and 71 requiring that, prior to construction, the  
36 certificate holder obtain all necessary permits and approvals for road approach, crossing and  
37 modifications from Gilliam County Road Department and Oregon Department of  
38 Transportation. These conditions would continue to apply to new roads and road  
39 improvements within the proposed expanded and new solar microsites areas.

40  
41 Council previously imposed Condition 5, which mirrors OAR 345-025-0006(5), and requires the  
42 certificate holder to demonstrate that it has obtained construction rights on all or parts of the

1 site prior to construction.<sup>22</sup> Condition 5 is supported by Condition 28, which requires that the  
2 certificate holder, prior to construction, obtain all necessary state, local and federal permits not  
3 governed by the site certificate; local permits, such as zoning permits, would be required prior  
4 to construction within the proposed expanded solar micrositings corridor and require landowner  
5 signature concurring rights of the certificate holder to develop on their land (i.e. access rights).  
6 These conditions would continue to apply to solar facility components constructed and  
7 operated within the proposed expanded and new solar micrositings areas.

8  
9 Based on compliance with existing conditions, the Department recommends Council find that  
10 the certificate holder would continue to satisfy the GCZO Section 7.010(A)(1)(d) general  
11 approval criterion.

12  
13 *e. Public services deemed necessary shall be available or provisions for such*  
14 *provided and no use shall be approved which is found to exceed the carrying*  
15 *capacities of affected public services unless there are provisions to bring such*  
16 *capacities up to the need.*

17  
18 GCZO Section 7.010(A)(1)(e) requires a demonstration that a proposed use would not exceed  
19 the carrying capacities of public service necessary for the use. This general approval criteria  
20 aligns with the Council's Public Services standard at OAR 345-022-0110 and is evaluated in  
21 Section III.A.8 *Public Services* of this order.

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

31  
32 *f. Proposal shall be in compliance with the applicable standards and limitations*  
33 *of the primary and combining zone as may be applicable.*  
34

35 GCZO Section 7.010(A)(1)(f) requires a demonstration that a proposed use be in compliance  
36 with applicable standards and limitations of the applicable primary and combining zones. The  
37 site boundary and proposed expanded solar micrositings area would be entirely within EFU-  
38 zoned land and would not be located within a designated combining zone. As identified above,  
39 the proposed RFA5 facility modifications would not satisfy GCZO Section 4.020(D)(11) or  
40 4.020(H)(1)(a) (i.e. would not be in compliance with the applicable standards of the primary

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<sup>22</sup> 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.

zone); however, the certificate holder requests Council review of a Goal 3 exception. As presented in Section III.A.4.2, the Department recommends Council grant a Goal 3 exception, which effectively provides an exception from Section 4.020(D)(11) and 4.020(H)(1)(a).

*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.*

GCZO Section 7.010(A)(1)(g) requires a demonstration that a proposed use would not have a significant adverse impact on carrying capacities of resources, such as air, soil, water supply and 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 facility modifications would not result in significant adverse impacts to the carrying capacities of natural resources. Therefore, based on the analysis and reasoning presented in the referenced sections, the Department recommends Council find that the facility, with proposed RFA5 modifications, would satisfy the GCZO Section 7.010(A)(1)(g) general approval criterion.

*h. No use shall be approved which is found to exceed the carrying capacities of affected public services and facilities.*

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, schools, hospitals, traffic safety, stormwater infrastructure, wastewater treatment, water supply, necessary for the use. As presented in Sections III.A.8 *Public Services* of this order, the 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 significant adverse impacts the carrying capacities of affected public services. Therefore, based on the analysis and reasoning presented in the referenced section, the Department recommends Council find that the facility, with proposed RFA5 modifications, would satisfy the GCZO Section 7.010(A)(1)(h) general approval criterion.

*i. All required State and Federal permits or approvals have been obtained or will be as a condition of approval.*

GCZO Section 7.010(A)(1)(i) requires a demonstration that all required State and Federal permits or approvals have been or will be obtained for the proposed use. In RFA5, the certificate holder represents that State permits necessary for the construction and operation of 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, and an onsite septic permit, both to be issued by ODEQ. Council previously imposed Conditions 28 and 29 requiring that the certificate holder provide copies of all necessary permits, including third-party permits, prior to construction; these conditions would continue to apply. Based on compliance with these conditions, the Department recommends Council find that the facility,

1 with proposed RFA5 modifications, would satisfy the GCZO Section 7.010(A)(1)(i) general  
2 approval criterion.

3  
4 *B. In addition to specific standards and/or conditions set forth by the applicable zone,*  
5 *this article or some other applicable regulations, other conditions may be imposed*  
6 *that are determined necessary to avoid a detrimental impact, and to otherwise*  
7 *protect the best interests of the surrounding area and the County as a whole. Such*  
8 *conditions may include, but are not limited to, the following:*

- 9  
10 *a. Limiting the manner in which the use is conducted including restricting the*  
11 *time an activity may take place and restraints to minimize such*  
12 *environmental effects as noise, vibration, air pollution, glare and odor.*  
13 *b. Establishing a special setback or other open space or lot area or dimension.*  
14 *c. Limiting the height, size or location of a building or other structure.*  
15 *d. Designating the size, number, improvements, location and nature of vehicle*  
16 *access points and parking or loading areas.*  
17 *e. Limiting or otherwise designating the number, size, location, height, and*  
18 *lighting of signs and outdoor lighting.*  
19 *f. Requiring diking, screening, fencing, landscaping or another facility to protect*  
20 *adjacent or nearby property and designating standards for its installation and*  
21 *maintenance.*  
22 *g. Protecting and preserving existing trees, vegetation, water resources, wildlife*  
23 *habitat or other significant natural resources.*  
24 *h. Limiting the term of the Conditional Use Permit to a specific time.*  
25 *i. Requiring necessary on-site or off-site improvements and maintenance.*  
26 *j. Requiring the holder of a Conditional Use Permit to obtain review, renewal, or*  
27 *reapplication approval of the permit in the event that there is an increase in*  
28 *impact from the use on public facilities beyond that which was projected at*  
29 *the time of initial approval.*  
30

31 GCZO Section 7.010(A)(2) describes conditions that “may be imposed... [if] determined  
32 necessary to avoid a detrimental impact, and to otherwise protect the best interests of the  
33 surrounding area and the County as a whole.” The ordinance lists discretionary conditions and  
34 does not contain substantive standards. During review of pRFA5, the Department consulted  
35 with the Gilliam County Planning Director and did not identify conditions that the County would  
36 consider “necessary to avoid a detrimental impact and to otherwise protect the best interests  
37 of the surrounding area and the County as a whole.” Therefore, the Department recommends  
38 Council not impose additional conditions under GCZO Section 7.010(A)(2).  
39  
40  
41  
42  
43

GCZO SECTION 7.020: STANDARDS GOVERNING CONDITIONAL USES

*GCZO SECTION 7.020(A) Conditional Uses, Generally*

*1. Setback. Requirements are addressed in each individual zone.*

GCZO Section 7.020(A) specifies that setback requirements are established for uses within specific zones. Therefore, compliance with applicable setback requirements is evaluated under GCZO Section 4.020(J) and 7.020(T)(5)(d).

*GCZO SECTION 7.020(Q) Conditional Uses in Exclusive Farm Use Zones*

*1. A Type I or Type II Conditional Use in an Exclusive Farm Use Zone may be approved only when the Planning Director or Hearings body finds that the use will not:*

- a. Force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use; or*
- b. Significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use.*

GCZO Section 7.020(Q) establishes standards for Type 1 or Type 2 conditional uses within EFU zoned land.<sup>23</sup> The standards require a demonstration that the proposed use would not force a significant change or significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use, which mirror the review criteria under GCZO Section 4.020(H) and OAR 660-033-0130(37). Because the evaluation under GCZO Section 7.020(Q) is identical to the evaluation under GCZO Section 4.020(H) and OAR 660-033-0130(38), it is not repeated. As presented under the evaluation of GCZO Section 4.020(H) and OAR 660-033-0130(38) in this section of the order, the Department recommends Council find that the proposed expanded and new solar micro-siting area would not be likely to force a significant change in accepted farm practices or significantly increase the cost of accepted farm practices on surrounding lands, and therefore would satisfy the applicable standards.

Article 8. Supplementary Provisions

*GCZO SECTION 8.030 CLEAR VISION AREAS*

- A. In all zones, a clear-vision area shall be maintained on the corners of all property at the intersection of two roads, a road and a driveway, or a road and a railroad. A clear-vision*

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<sup>23</sup> 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.

1        *area shall contain no planting, fence, wall, structure, or temporary or permanent*  
2        *obstruction exceeding three and one-half feet (3½) in height, measured from the*  
3        *established road center line grade, except for authorized road signs and cyclone or other*  
4        *open construction fences which permit clear vision through the triangular area. Trees*  
5        *may be located in this area as long as all branches and foliage are removed to a height of*  
6        *eight (8) feet above the grade.*

7  
8        *B. A clear-vision area shall consist of a triangular area, two sides of which are lot lines*  
9        *intersecting at the corner of the lot, and the third side of which is a line across the corner*  
10       *of the lot joining the non-intersection ends of the other two sides. For purposes of this*  
11       *section, lot lines shall be considered to be the edge of the right-of-way.*

12  
13       *C. Any side of the triangular clear-vision area adjacent to a road, railroad, or access drive to*  
14       *a parking area shall be at least 30 feet. Any side of the clear-vision area adjacent to a*  
15       *residential driveway shall be at least 15 feet.*

16  
17       GCZO Section 8.030 establishes requirements to maintain specified clear vision areas at corners  
18       of property and road or railroad intersections and, lot lines. As described throughout RFA5, the  
19       certificate holder proposes to expand and add new area within the previously approved 1,189  
20       acre solar micrositng area, resulting in a 1,496 acre solar micrositng area for the Montague  
21       Solar Facility and 1,228 acre solar micrositng area for the Oregon Trail Solar Facility. Primary  
22       access to the solar micrositng areas would be from Bottemiller Lane and Weatherford Road.  
23       The certificate holder represents that clear vision would be maintained at each point of  
24       junction with primary or secondary access locations, and a triangular “clear-vision area” would  
25       be maintained on either side of intersections of Bottemiller Lane and Weatherford Road. In  
26       accordance with previously imposed Conditions 70 and 71, the certificate holder would be  
27       required to consult with ODOT and the Gilliam County Public Works Department prior to  
28       construction relating to this provision. As such, the Department recommends that the Council  
29       find that the facility, with proposed RFA5 modifications, would satisfy this GCZO provision.

30  
31       **GCZO SECTION 8.040 – OUTDOOR LIGHTING STANDARDS**

32  
33       *All outdoor lighting, including for accessory facilities and the lighting of commercial*  
34       *signs, shall comply with the following:*

- 35  
36       *A. Any outdoor light shall be shielded to illuminate downward.*  
37       *B. The outdoor light source (bulb or element) shall not be visible at or beyond the*  
38       *property line.*  
39       *C. Outdoor lights shall not exceed the height limit of the zone where the light will be*  
40       *located.*  
41       *D. Structures over 50 feet in height shall not be lighted unless required to be lighted by*  
42       *the Federal Aviation Administration (F.A.A.). Structures over 50 feet in height that*  
43       *are required to be lighted by F.A.A. shall be shielded to illuminate upward.*

GCZO Section 8.040 establishes outdoor lighting standards to minimize night-light impacts 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 requirements; (b) security lighting at O&M buildings and substations, provided that the lighting is shielded or downward facing; (c) lighting necessary for repairs or emergencies and; (d) minimum light necessary for construction activities.

As presented in RFA5, the proposed split and allocation of previously approved facility components under an amended Montague Wind Power Facility site certificate and two new site certificates for Montague Solar Facility and Oregon Trail Solar Facility would result in removal of wind turbines from the Montague Solar Facility. Therefore, the certificate holder requests that Condition 104 be administratively amended in the Montague Solar Facility site certificate to remove reference wind turbine related requirements because they are no longer applicable.

#### *Montague Solar Facility*

Recommended Amended Condition 104: The certificate holder shall not use exterior nighttime lighting except:

~~The minimum turbine tower lighting required or recommended by the Federal Aviation Administration.~~

- (a) Security lighting at the Montague Solar O&M buildings and ~~at the~~ substations, provided that such lighting is shielded or downward-directed to reduce glare.
- (b) Minimum lighting necessary for repairs or emergencies.
- (c) Minimum lighting necessary for construction directed to illuminate the work area and shielded or downward-directed to reduce glare.

[Final Order on ASC; AMD5]

The Department recommends that the Council find that proposed RFA5 facility modifications would satisfy this GCZO provision.

#### *GCZO SECTION 8.050 – SIGN REGULATIONS*

*The following regulations shall apply to any sign erected, moved, or altered after adoption of this Ordinance. Official traffic control signs and instruments of the state, county, or municipality are exempt from all provisions of this Section.*

- A. *All outdoor advertising signs shall be in compliance with the provision of ORS Chapter 377 when applicable.*
- B. *No outdoor advertising sign permitted by ORS 377 shall be erected within 100 feet of a residential dwelling without written consent of the owner and/or occupant of said dwelling.*

- 1 C. No sign shall be placed in a manner that will interfere with visibility or effectiveness  
2 of any official traffic sign or signal, or with driver vision at any access point or  
3 intersection.
- 4 D. No sign shall cause glare, distraction or other driving hazards, or by position, shape,  
5 color or other characteristic be similar to any traffic signal.
- 6 E. Light from a sign shall be directed away from roads and adjacent parcels. The light  
7 source shall be shielded to illuminate downward and the light source shall not be  
8 visible beyond the property line or parcel on which the sign is located. No sign may  
9 incorporate a bare incandescent bulb with wattage exceeding 20 watts, except as a  
10 shielded indirect light source. Illuminated signs require an electrical permit.
- 11 F. Sign structures may be placed within the required setbacks from property lines  
12 provided they comply with the vision clearance standards of Section 8.030, but may  
13 not be placed within or overhang a dedicated right-of-way unless a permit approving  
14 the location has been issued by the Oregon Department of Transportation or County  
15 Road Master.
- 16 G. No sign may be situated in a manner that results in the blanketing of an existing sign.
- 17 H. Prohibited Signs-The following types of signs are allowed in commercial, industrial  
18 and service community zones, but are prohibited in all other zones:
- 19 1. Moving or flashing signs or signs which incorporate video or fiber optic displays  
20 or other mediums that display changing or moving text or images.
- 21 2. Anchored balloon or other inflatable signs.
- 22 3. Roof-mounted signs.
- 23 I. Sign Size Standards
- 24 Sign area shall be calculated based on the overall dimensions of all panels that display  
25 messages. When the sign message is not mounted on a panel, the sign area shall be  
26 calculated by drawing a regular geometric shape around the message area. For signs  
27 that are incorporated into murals, awnings and similar architectural features, only the  
28 portion of the sign considered to contain a message will be calculated as sign area.
- 29 Signs shall meet the following size standards:
- 30 1. Free-standing signs shall not exceed 35 feet or the height limit of the zone, whichever  
31 is less.
- 32 2. Signs mounted above an entrance to a building shall have a minimum ground  
33 clearance of eight feet.
- 34 3. Building-mounted signs shall not extend more than one foot above the exterior wall  
35 of the building.
- 36 4. Temporary signs that are 32 square feet or smaller are permitted in any zone.
- 37 5. In the Exclusive Farm Use zone, one or more signs with a combined total area not  
38 exceeding 32 square feet are permitted on any tract. No more than one free-  
39 standing sign is permitted per parcel.
- 40 6. In the Airport Development, Limited Industrial and General Industrial zones, one or  
41 more signs with a combined total area not exceeding 300 square feet are permitted  
42 on any parcel. No individual sign shall exceed 150 square feet in area. No more than  
43 one free-standing sign is permitted per parcel.



7. *In all other zones not specified in subsection 6, one or more signs with a combined total area not exceeding eight square feet are permitted on any parcel.*

GCZO Section 8.050 establishes specific requirements for outdoor signs. The certificate holder represents that the access points for each facility, based on proposed split of Montague Wind Power Facility into three separate facilities, would include signage that would be designed to 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:

*Montague Wind Power Facility, Montague Solar Facility and Oregon Trail Solar Facility*

Recommended Condition 118: Prior to construction and operation of the 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.

Based on compliance with the above-recommended condition, the Department recommends Council find that the proposed RFA5 facility modifications would comply with GCZO Section 8.050.

#### **GCZO SECTION 8.100 – OFF-STREET PARKING REQUIREMENTS**

*At the time of construction, reconstruction, or enlargement of a structure, or at the time a use is changed in any zone, off-street parking spaces shall be provided as required in accordance with standards required below:*

##### **A. NUMBER OF PARKING SPACES REQUIRED**

- 1. The minimum number of parking spaces required for various uses is shown in this section. Square feet specifications refer to the floor area of the building containing the use. In addition to these requirements, one space is required per employee working on the premises during the largest anticipated shift at peak season, including proprietors.*
- 2. Parking requirements for uses not specified in (A) shall be based on the listed use that is most similar to the proposed use. If no use listed in (A) is similar to the proposed use, the applicant shall submit a parking study that includes an estimate of the parking demand based on recommendations of the Institute of Traffic Engineers or similar data.*
- 3. Accessible (ADA) parking spaces shall be provided in accordance with current state Structural Specialty Code and ODOT adopted standards.*

4. *In the event several uses occupy a single structure or parcel of land, the number of required spaces shall be the total of the requirements for all of the uses.*
5. *Uses that require more than ten parking spaces shall include an area designated for bicycle parking, with bike racks that will accommodate at least one bicycle for each ten vehicle parking spaces. The bicycle parking area may be in the same location as the vehicle parking spaces or may be located closer to the building entrance or use.*

GCZO Section 8.100(A) establishes parking requirements for proposed uses. Parking requirements would apply to previously approved collector substations, O&M buildings, and proposed switching station. The certificate holder previously confirmed that facility components would be designed to comply with parking requirements imposed by GCZO 8.100(A)(1). Based on the certificate holder's representation, to be verified upon receipt of the building/zoning permit obtained prior to construction (Condition 28), the Department recommends Council continue to find that the facility, with proposed RFA5 facility modifications, would comply with GCZO Section 8.100(A).

#### *GCZO SECTION 8.140 – SITE PLAN REVIEW*

GCZO Section 8.140 Site Plan Review applies to the proposed RFA5 facility modifications based on the proposed increase in solar micrositng area and changes in layout of solar facility components, as evaluated below.

##### *A.PURPOSE*

*The purpose of site plan review is to provide for administrative review of the design of certain developments and improvements in order to promote functional, safe, innovative, and attractive site development that is compatible with the natural and man-made environment and is consistent with applicable requirements of this Ordinance.*

##### *E. DETAILED PLAN for any required or proposed landscaping that shall clearly illustrate:*

1. *Plants and tree species, their initial sizes and other proposed landscaping materials.*
2. *The location and dimensions of all areas to be devoted to landscaping, and location of any automatic sprinkler systems.*

GCZO Section 8.140(E) requires, as applicable, a landscaping plan as part of Site Plan Review. The certificate holder represents that the facility, with proposed RFA5 modifications, would not include landscaping.

##### *F. OUTDOOR STORAGE AND ACTIVITIES, IF PERMITTED IN THE ZONE: Type, location and height of screening devices.*

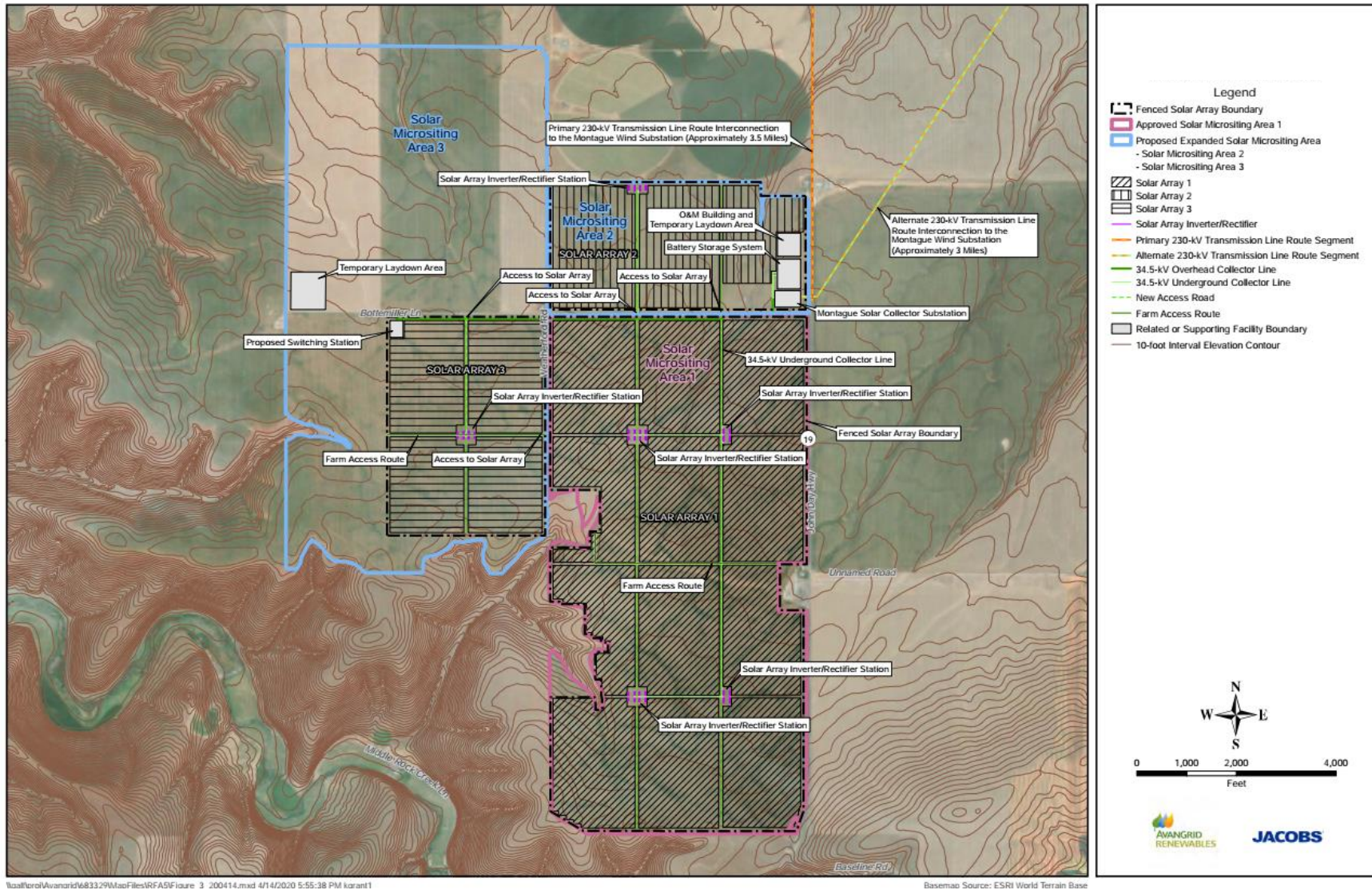
GCZO Section 8.140(F) requires identification of the type, location and height of any screening devices for outdoor areas used for storage or related activities, as part of Site Plan Review.

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

4  
5 *G. TOPOGRAPHIC INFORMATION for any area with slopes exceeding 10 percent. Contour*  
6 *intervals shall be ten feet or smaller.*  
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  
10 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  
12 Figure 5: *Proposed Solar Component Layout and Elevation Contours*, below. Based on the  
13 mapping provided, the Department recommends that the Council find that the facility, with  
14 proposed RFA5 modifications, would satisfy this GCZO provision.  
15

1 **Figure 5: Proposed Solar Equipment Layout and Elevation Contours**



2



1           *H. DRAINAGE PLAN, or evidence that stormwater runoff will be accommodated by an*  
2           *existing storm drainage system.*

3  
4 GCZO Section 8.140(H) requires a drainage plan as part of Site Plan Review. Council previously  
5 imposed Condition 80, requiring that the certificate holder obtain, prior to construction, a  
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 GCZO 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,  
16 as further evidence of consistency with GCZO Section 8.140(H).

17  
18           *I. IDENTIFICATION OF PROPOSED TRASH STORAGE LOCATIONS, including proposed*  
19           *enclosure design construction and access for pickup purposes.*

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:  
28 *Proposed Solar Equipment Layout and Elevation Contours* above. Based on access presented on  
29 Figure 5 above, the Department recommends Council find that the facility, with proposed RFA5  
30 modifications, would comply with GCZO Section 8.040(I).

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  
39 would be provided onsite through the use of an exempt well. Based on the identification of  
40 existing and proposed utilities, the Department recommends that Council find that the facility,  
41 with proposed RFA5 modifications, would satisfy this GCZO provision.

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 –  
5 a related or supporting facility to be included in the Oregon Trail Solar Facility site certificate.  
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  
10 proposed switching station. Therefore, the Department recommends Council find that based  
11 upon compliance with Condition 28, the certificate holder would satisfy GCZO Section 8.040(K).  
12

13           *L. APPROVAL STANDARDS:*

14           *1. All provisions of this zoning ordinance and other applicable regulations are complied*  
15           *with.*

16           *2. Elements of the site plan are arranged so that:*

- 17           *a. Traffic congestion is avoided.*  
18           *b. Pedestrian and vehicular safety and welfare are protected.*  
19           *c. Significant features and public amenities are preserved and maintained.*  
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*  
24           *buffered or screened to minimize adverse impact on neighboring properties.*  
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*  
30           *level identified in the Transportation System Plan (LOS C). This standard may be met*  
31           *through a condition of approval requiring improvements to the transportation facility.*  
32

33 GCZO Section 8.040(L) requires a demonstration that the development would not result in  
34 traffic volumes that would reduce performance standards to a level of service (LOS) C. The  
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*  
39           *USES.*  
40

41 GCZO Section 8.040(N) prohibits adverse affects from a proposed use to agricultural or forested  
42 uses. As evaluated above under Section GCZO 4.020(H), the Department recommends that the  
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 affects. As such, the Department recommends that the Council find that this provision of the GCZO is satisfied.

### **Gilliam County Comprehensive Plan**

The Gilliam County Comprehensive Plan (GCCP) is modeled after, and is consistent with, Oregon's Statewide Planning Goals. Under GCZO 7.010(A)(1)(a), a conditional use must be in compliance with the Comprehensive Plan. The relevant Comprehensive Plan provisions are discussed below:

#### *Goal 3. Agricultural Lands*

*Goal: To preserve and maintain agricultural lands.*

*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 on the authority given a county to establish Exclusive Farm Use zones (ORS 215.203), to 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 215.263). The policies are intended to support the state's agricultural land use policy (ORS 215.243) and should be so interpreted and construed.*

#### *Policies:*

*In consideration of the above Findings, the Gilliam County Court adopts the following policies:*

- 1. In order to preserve the maximum level of agriculture in the County, all "Agricultural 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 permitted uses, and those non-farm uses permitted by ORS 215.283(2) may be allowed as conditional uses subject to ORS 215.296.*

This policy is implemented under GCZO Section 4.020. As noted by the certificate holder, the proposed expansion of the solar micrositing area would not comply with the County's "Goal 3," because the proposed expansion would exceed acreage thresholds contained within GCZO 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. Therefore, the Department recommends that the Council conclude that the facility, with proposed RFA5 modifications, would be consistent with this policy.

*Goal 5. Natural Resources, Scenic, and Historic Areas, and Open Spaces*

*Goal: To conserve open space and protect natural and scenic resources.*

*Policies:*

- 2. The Department of Fish and Wildlife (ODFW) will be consulted when proposed land use actions may affect fish or wildlife habitats.*

This policy requires consultation with ODFW when proposed land use actions may affect fish or wildlife habitats within natural resources, scenic and historic areas, and open spaces. The proposed RFA5 facility modifications would not result in impacts to fish and wildlife habitat; nonetheless, the Department is obligated to consult with ODFW for the life of the facility during review of pre-construction compliance requirements and ongoing annual reporting related to weed management, revegetation and wildlife surveys and mitigation. Furthermore, Conditions 91 through 101 also require further ODFW consultation (in pertinent part) relating to the Wildlife Monitoring and Mitigation Plan (WMMP) Revegetation Plan, Habitat Mitigation Plan, Washington Ground Squirrel surveys, and sensitive wildlife surveys. Therefore, the Department recommends that the Council conclude that the facility, with proposed RFA5 modifications, would be consistent with this policy.

- 12. Gilliam County will continue to encourage the development of alternative sources of energy.*

This comprehensive plan policy is a directive to the County to encourage alternative energy development in its implementation of its plan. However, to the extent this policy is considered an “applicable substantive criteria,” the proposed RFA5 facility modifications could be considered an “alternative” source of energy because it would expand the development of solar facility components. Therefore, the Department recommends that the Council conclude that the facility, with proposed RFA5 modifications, would be consistent with this policy.

*Goal 6. Air, Water and Land Resources Quality*

*Goal: To maintain and improve the quality of the air, water, and land resources of the state.*

*Policies:*

- 6. All new industrial development should comply with DEQ air, noise and water quality standards.*

- 7. The Department of Environmental Quality and other affected agencies should be notified of all proposals for industrial development or other uses which may affect*



*environmental quality. Their comments should be considered in decisions concerning the proposal.*

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 microsite 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 8. Recreation Needs*

*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.*

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 microsite 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.

#### *Goal 12. Transportation*

*Goal: To provide and encourage a safe, convenient, and economic transportation system.*

#### *Policies:*

*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.*

1 This policy prohibits development from interfering with the operation, maintenance, repair and  
2 preservation of existing transportation facilities. Based upon the proposed expansion of solar  
3 micrositing area, because it would be within previously approved site boundary, previously  
4 evaluated facility access and use of interstate, state, and county roads during construction and  
5 operation would not change. No new public roads would be constructed as a result of the  
6 modifications proposed in RFA5. The facility, with proposed RFA5 modifications, would result in  
7 potential road modifications to Oregon Highway 19, Berthold Road, Bottemiller Lane,  
8 Weatherford Road, and Baseline (Ione) Rd, as previously evaluated in Council's Final Order on  
9 RFA4.

10  
11 Existing Condition 71 provides, in pertinent part, that the certificate holder shall modify, as  
12 necessary: (1) County roads, within County road rights-of-way, and in conformity with County  
13 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  
26 *Goal: To conserve energy.*

27  
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.

III.A.4.2 Directly Applicable State Statutes and Administrative Rules

**Oregon Revised Statutes**

*ORS 215.283(1)(c) and ORS 215.274 – Associated Transmission Lines Necessary for Public Service*

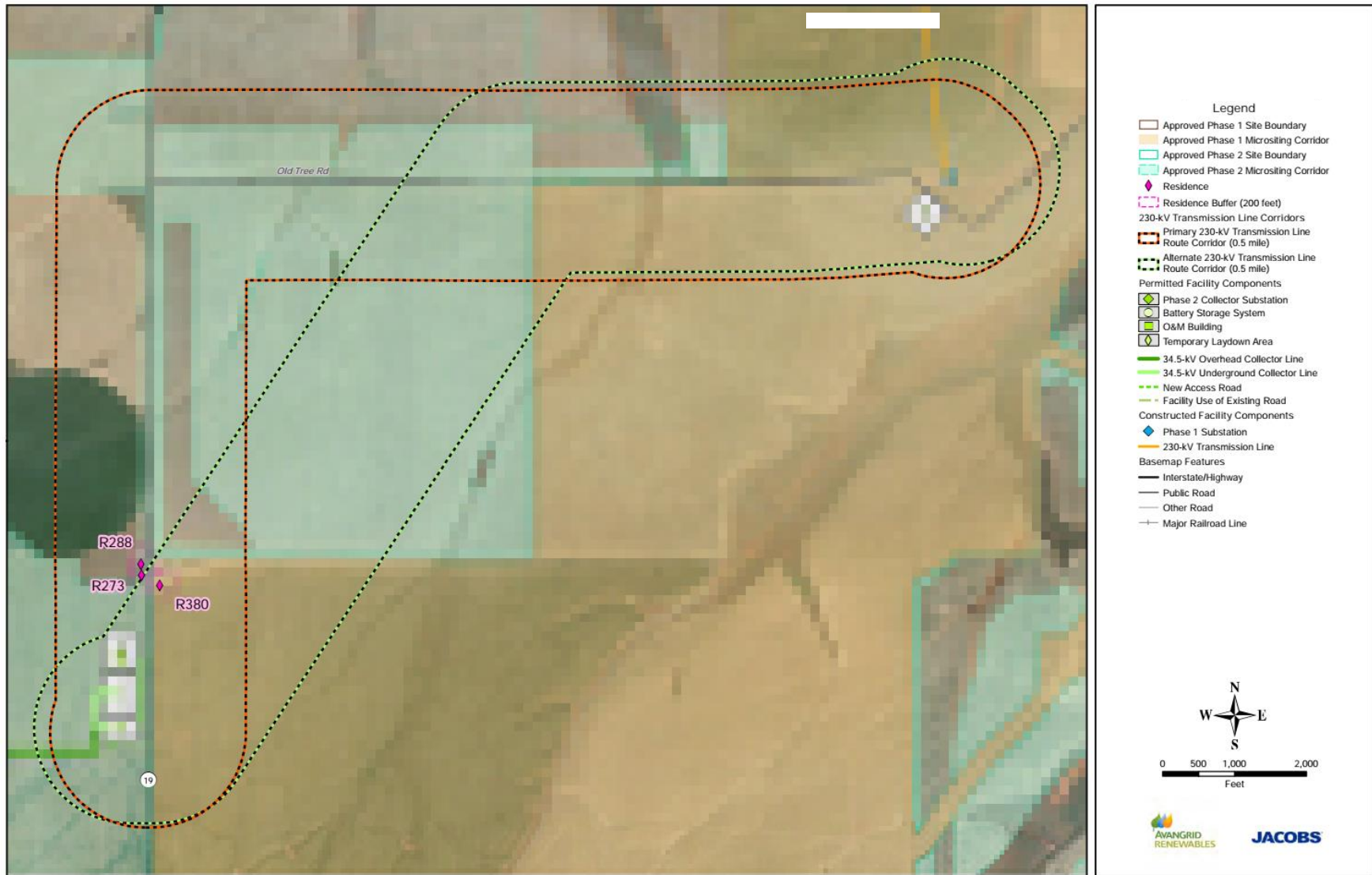
Transmission lines that meet the definition of an “associated transmission line” must consider the requirements of ORS 215.274. If a utility facility necessary for public service is an “associated transmission line” as defined in ORS 215.274 and ORS 469.300, the use may be established in EFU-zoned land pursuant to ORS 215.283(1)(c).

ORS 469.300(3) defines “associated transmission lines” as “new transmission lines constructed to connect an energy facility to the first point of junction of such transmission line or lines with either a power distribution system or an interconnected primary transmission system or both or to the Northwest Power Grid,” and that definition is incorporated by reference in ORS 215.274. Associated transmission lines reviewed under ORS 215.274 are a subset of the transmission lines that could be evaluated as utility facilities necessary for public service under ORS 215.283(1)(c).

The proposed alternate 230 kV route would exit east out of the Montague Solar collector substation to a 90-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 turn east towards the Montague Wind collector substation. The approved and proposed alternate segment route are presented in Figure 3: *Proposed Site Boundary, Solar Micrositing Area and Alternate 230 kV Transmission Line Segment Route* below. The Council previously evaluated the 230 kV transmission line as an “associated transmission line” because it would transmit electricity from the facility to BPA’s Slatt Substation. The initiation and termination point of the 230 kV transmission line would not change as a result of the proposed alternate 230 kV route, and therefore continues to be evaluated as an “associated transmission line.”

Gilliam County has not adopted local code provisions to implement ORS 215.274. Therefore, the requirements of the statute apply directly to the proposed alternate 230 kV route and the applicable requirements are evaluated below. The proposed alternate 230 kV route and previously approved route segments are represented in Figure 6: *Approved and Proposed Alternate 230 kV Route Segments* below, where the certificate holder identifies the proposed alternate route as “primary” and the previously approved route as the “alternate.”

1 **Figure 6: Approved and Proposed Alternate 230 kV Route Segments**



2 \\gail\proj\Avangrid\683329\MapFiles\RFAS\Figure\_4\_200414.mxd 4/14/2020 5:25:45 PM kgrant1

*ORS 215.274(2): An associated transmission line is necessary for public service if an applicant for approval under ORS 215.213 (Uses permitted in exclusive farm use zones in counties that adopted marginal lands system prior to 1993) (1)(c)(B) or 215.283 (Uses permitted in exclusive farm use zones in nonmarginal lands counties) (1)(c)(B) demonstrates to the governing body of a county or its designee that the associated transmission line meets:*

- (a) At least one of the requirements listed in subsection (3) of this section; or*
- (b) The requirements described in subsection (4) of this section.*

ORS 215.274 requires that the certificate holder demonstrate that the associated transmission line meets the requirements of either ORS 215.274 (3) or (4). As discussed below, Council previously found that the associated transmission line satisfied the requirements of ORS 215.274(4).

*ORS 215.274(3): The governing body of a county or its designee shall approve an application under this section if an applicant demonstrates that the entire route of the associated transmission line meets at least one of the following requirements:*

- (a) The associated transmission line is not located on high-value farmland, as defined in ORS 195.300 (Definitions for ORS 195.300 to 195.336), or on arable land;*
- (b) The associated transmission line is co-located with an existing transmission line;*
- (c) The associated transmission line parallels an existing transmission line corridor with the minimum separation necessary for safety; or*
- (d) The associated transmission line is located within an 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.*

ORS 215.274(3) requires a demonstration that the proposed alternate 230 kV route would not be located on high-value farmland or arable land, co-located or parallel an existing transmission line, or within an existing linear facility right of way. The proposed alternate 230 kV transmission line route would not satisfy any of these requirements.

*ORS 215.274(4)(a): Except as provided in subsection (3) of this section, the governing body of a county or its designee shall approve an application under this section if, after an evaluation of reasonable alternatives, the applicant demonstrates that the entire route of the associated transmission line meets, subject to paragraphs (b) and (c) of this subsection, two or more of the following factors:*

ORS 215.274(4)(a) requires an evaluation of reasonable alternatives to determine whether the associated transmission line may be sited on land other than EFU-zoned land. The evaluation of “reasonable alternatives” does not require an evaluation of all alternative non-EFU zoned

1 routes on which the transmission line could be located. Rather, the certificate holder must  
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  
6 EFU zoned land.

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 previous 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  
16 avoid EFU land exist, and that two or more of the listed factors [ORS 215.274(a)(A) through (E)]  
17 be met, which is evaluated below.

18  
19 ORS 215.274(4)(a)(A): 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  
31 ORS 215.274(4)(a)(B): The associated transmission line is locationally dependent because  
32 the associated transmission line must cross high-value farmland, as defined in ORS  
33 195.300 (Definitions for ORS 195.300 to 195.336), or arable land to achieve a reasonably  
34 direct route or to meet unique geographical needs that cannot be satisfied on other  
35 lands;  
36

37 ORS 215.274(4)(a)(B) requires a demonstration that the alternate 230 kV transmission route  
38 must cross high value farmland or arable land to achieve a reasonably direct route and  
39 therefore is locationally dependent. As presented in Figure 6: *Approved and Proposed Alternate*  
40 *230 kV Route Segments* above, the proposed alternate 230 kV transmission route would be  
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 reasonable route to interconnect the approved Montague Solar collector substation (previously referred to as Phase 2 collector substation) to the existing Montague Wind collector substation (previously referred to as Phase 1 collector substation) without traversing high value farmland and arable land, the Department recommends Council find that the proposed alternate 230 kV transmission route must cross high value farmland and arable land to achieve a reasonably direct route, and that the alternate route is therefore “locationally dependent” and would satisfy ORS 215.274(4)(a)(B).

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;

ORS 215.274(4)(a)(C) requires a demonstration of a lack of available existing linear facility rights-of-way for which the transmission line could be located. Based upon the certificate holder’s assessment of ORS 215.274(4)(a)(C) in RFA4, the availability of existing public road rights-of-way was evaluated. The certificate holder previously described that the existing OR 19 road right-of-way was not available for co-location of the transmission line because it contains an existing pipeline on the east side, and topographic constraints include ditches with steep rises to adjacent fields on both sides of OR 19, which eliminate usable space within the right of way and make it difficult to locate the poles within the right-of-way while also setback for traffic safety. While this analysis was previously relied upon to support the evaluation of the approved 230 kV transmission line route, the Department recommends Council find that the analysis remains valid for the proposed alternate 230 kV transmission route.

Based on the limitation of feasibility of use of the existing or expanded road right-of-way, as described above, the Department recommends the Council find that the proposed alternate 230 kV transmission route would satisfy ORS 215.274(4)(a)(C).

ORS 215.274(4)(a)(D): Public health and safety; or

ORS 215.274(4)(a)(D) requires a demonstration that the proposed alternate transmission line 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 does not exist within the analysis area. Therefore, the Department recommends Council find that the proposed alternate 230 kV transmission route would not satisfy ORS 215.274(4)(a)(D).

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

ORS 215.274(4)(a)(E) requires a demonstration that the proposed alternate 230 kV transmission route must be sited in an EFU zone due to other state or federal requirements. Other requirements of state or federal agencies has not been identified. Therefore, the Department

1 recommends Council find that the proposed alternate 230 kV transmission route would not  
2 satisfy ORS 215.274(4)(a)(E).

3  
4 ORS 215.274(4)(b): *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  
10 ORS 215.274(4)(b) requires a demonstration that the proposed alternate 230 kV transmission  
11 route would not result in a significant change in accepted farm practices or a significant  
12 increase in cost of farm practices on surrounding land. Impacts from the proposed alternate  
13 route would be minimized by paralleling existing roads, siting transmission structures on the  
14 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  
18 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  
20 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  
24 significant change to accepted farm practices or significantly increase costs of farm practices on  
25 surrounding land. Therefore, the Department recommends Council find that the proposed  
26 alternate 230 kV transmission route would satisfy 215.274(4)(b).

27  
28 ORS 215.274(4)(c): *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  
33 ORS 215.274(4)(c) allows for consideration of costs in determining whether the associated  
34 transmission line is necessary for public service. The certificate holder indicates that, based on  
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  
38 and would continue to satisfy ORS 215.274(4)(a); and, that the alternative route is locationally  
39 dependent under ORS 215.274(4)(a)(B) and that there is a lack of available existing rights-of-  
40 way for a linear facility under ORS 215.274(4)(a)(C). As such, the Department recommends that  
41 the Council find that the proposed 230 kV transmission route is "necessary for public service."



Oregon Administrative Rules

*OAR 660-033-0130-(38) – Standards for Approval for Photovoltaic Solar Power Generation Facility in Exclusive Farm Use Zones*

*(g) For high-value farmland described at ORS 195.300(10), a photovoltaic solar power generation facility shall not use, occupy, or cover more than 12 acres unless:*

*(A) The provisions of paragraph (h)(H) are satisfied; or*

*(B) A county adopts, and an applicant satisfies, land use provisions authorizing projects subject to a dual-use development plan. Land use provisions adopted by a county pursuant to this paragraph may not allow a project in excess of 20 acres. Land use provisions adopted by the county must require sufficient assurances that the farm use element of the dual-use development plan is established and maintained so long as the photovoltaic solar power generation facility is operational or components of the facility remain on site. The provisions of this subsection are repealed on January 1, 2022.*

The Gilliam County Zoning Ordinance has not been updated to incorporate Oregon Administrative Rule 660-033-0130(38) and therefore OAR 660-033-0130(38) is an administrative rule that applies directly. OAR 660-033-0130(38)(g) restricts a photovoltaic solar power generation facility from using, occupying, or covering more than 12 acres of high value farmland unless the provisions of OAR 660-033-0130(38)(h)(H) are satisfied or the County adopts a dual-use development plan, which would then allow use, occupation or coverage on no more than 20 acres of high-value farmland. In RFA5, the certificate holder represents that the proposed expansion of the solar microsite area would use, occupy or cover more than 12 acres of high-value farmland, and therefore these provisions are applicable. The evaluation of OAR 660-033-0130(h)(H), as required under OAR 660-033-0130(38)(g)(A), is presented below.

*(h)(H) A photovoltaic solar power generation facility may be sited on more than 12 acres of high-value farmland described in ORS 195.300(10)(f)(C) without taking an exception pursuant to ORS 197.732 and OAR chapter 660, division 4, provided the land:*

*(i) Is not located within the boundaries of an irrigation district;*

*(ii) Is not at the time of the facility's establishment, and was not at any time during the 20 years immediately preceding the facility's establishment, the place of use of a water right permit, certificate, decree, transfer order or ground water registration authorizing the use of water for the purpose of irrigation;*

*(iii) Is located within the service area of an electric utility described in ORS 469A.052(2);*

*(iv) Does not exceed the acreage the electric utility reasonably anticipates to be necessary to achieve the applicable renewable portfolio standard described in ORS 469A.052(3); and*

*(v) Does not qualify as high-value farmland under any other provision of law; or*

OAR 660-033-0130(38)(g)(A) requires an evaluation of OAR 660-033-0130(38)(h)(H), where – (h)(H) allows consideration of other factors in lieu of a goal exception, including whether the 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, certificate, decree, or transfer; within the service area of an electric utility; would not exceed the acreage necessary to achieve the renewable portfolio standard; and, does not qualify as high-value farmland under any provision of law. Based on review of RFA5 Attachment 4 Landowner Letters, which includes email correspondence from Oregon Water Resources Department staff Jerry Sauter, the proposed expanded solar micrositings area would be located within a location where, within the last 20 years, there was a place of use water right (expired in 2006), Therefore, the proposed RFA5 facility modifications would not satisfy the -(h)(H) requirements and a goal exception is required.

OAR 660-033-0130(38)(g)(A) also allows for consideration of a dual-use development plan 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.

*(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).*

*(A) The proposed photovoltaic solar power generation facility will not create unnecessary negative impacts on agricultural operations conducted on any portion of the subject property not occupied by project components. Negative impacts could include, but are not limited to, the unnecessary construction of roads dividing a field or multiple fields in such a way that creates small or isolated pieces of property that are more difficult to farm, and placing photovoltaic solar power generation facility project components on lands in a manner that could disrupt common and accepted farming practices;*

*(B) The presence of a photovoltaic solar power generation facility will not result in unnecessary soil erosion or loss that could limit agricultural productivity on the subject property. This provision may be satisfied by the 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 remedied.*

*The approved plan shall be attached to the decision as a condition of approval;*

*(C) Construction or maintenance activities will not result in unnecessary soil compaction that reduces the productivity of soil for crop production. This provision may be satisfied by the submittal and county approval of a plan prepared by an adequately qualified individual, showing how unnecessary soil compaction will be avoided or remedied in a timely manner through deep soil decompaction or other appropriate practices. The approved plan shall be attached to the decision as a condition of approval;*

*(D) Construction or maintenance activities will not result in the unabated introduction or spread of noxious weeds and other undesirable weed species. This provision may be satisfied by the submittal and county approval of a weed*

control plan prepared by an adequately qualified individual that includes a long-term maintenance agreement. The approved plan shall be attached to the decision as a condition of approval;

(E) Except for electrical cable collection systems connecting the photovoltaic solar generation facility to a transmission line, the project is not located on those high-value farmland soils listed in OAR 660-033-0020(8)(a);

(F) The project is not located on those high-value farmland soils listed in OAR 660-033-0020(8)(b)-(e) or arable soils unless it can be demonstrated that:

(i) Non high-value farmland soils are not available on the subject tract;

(ii) Siting the project on non high-value farmland soils present on the subject 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

commercial farm or ranching operation on the subject tract than other

possible sites also located on the subject tract, including those comprised of

non high-value farmland soils; and

(G) A study area consisting of lands zoned for exclusive farm use located within one 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 been constructed or received land use approvals and obtained building permits within the study area, no further action is necessary.

(ii) When at least 48 acres of photovoltaic solar power generation facilities have been constructed or received land use approvals and obtained building permits, either as a single project or as multiple facilities within the study area, the local government or its designate must find that the photovoltaic solar power generation facility will not materially alter the stability of the 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 photovoltaic solar power generation facilities will make it more difficult for the existing farms and ranches in the area to continue operation due to 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.

OAR 660-033-0130(38)(h)(A) – (D) requires a demonstration that the facility, with proposed RFA5 modifications, would not create unnecessary negative impacts to agricultural operations, soil erosion or loss, soil compaction, or the unabated introduction or spread of noxious weeds.

OAR 660-033-0130(38)(h)(A): Unnecessary Negative Impacts to Agricultural Operations

OAR 660-033-0130(38)(h)(A) requires a demonstration that the proposed expansion of solar micrositing area would not create unnecessary negative impacts to agricultural operations, such as dividing of fields. The facility, with proposed RFA5 facility modifications, would result in removal of up to 2,725 acres of land currently used for agriculture (dryland wheat cultivation)

1 by four landowners. Of the property of the four landowners, three landowners would maintain  
2 other land usable for dryland wheat cultivation, which would not be impacted by the proposed  
3 changes. In addition, the proposed changes in facility component layout would not result in  
4 field division and would include design measures allowing for farm use access through the site  
5 and gate-entry points that are wide enough for pass-through of farm equipment.

6  
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  
9 remove all agricultural land from one underlying landowner, but would not otherwise alter the  
10 ability for existing landowners to conduct agricultural operations. In RFA5 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 • Condition 43 requires that, during construction and operation, a Weed Control Plan  
25 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  
41 Based on compliance with previously imposed conditions, and the evidence provided in the  
42 landowner letters, the Department recommends Council find that the facility, with proposed

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

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

OAR 660-033-0130(38)(h)(B) requires the certificate holder to demonstrate that the facility, with proposed RFA5 modifications, would not “result in unnecessary soil erosion or loss that could limit agricultural productivity on the subject property” and states that the “provision may 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 remedied and how topsoil will be stripped, stockpiled and clearly marked.”

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

Based on compliance with previously imposed conditions, the Department recommends Council find that the facility, with proposed RFA5 modifications, would not result in unnecessary soil erosion or loss that could limit agricultural productivity, and therefore satisfies the requirements under OAR 660-033-0130(38)(h)(B).

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

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 reduces the productivity of soil for crop production.” Soil compaction would be limited by the certificate holder’s use of existing or constructed access roads, which would limit potential impacts from driving across or through productive soils used for crop production; specifically, Condition 81 mandates that truck traffic be limited to the extent practicable to improved road 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 the solar microsite area and construct and operate an additional related or supporting facility (switching station) this would not alter the certificate holder’s ability to comply with conditions that require minimization of soil compaction. As such, the Department recommends that, based upon compliance with existing site certificate conditions, the Council conclude that the facility,

1 with proposed RFA5 facility modifications, would not result in unnecessary soil compaction, and  
2 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  
11 provides a draft Weed Control Plan (see Attachment F of this order), to be finalized prior to  
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 –  
28 represented in RFA5 Table 8, soil classification within the proposed expanded solar micrositing  
29 area includes Class III, IV and VI – which are not considered high-value farmland soils.  
30 Therefore, the Department recommends Council find that the facility, with proposed RFA5  
31 modifications, would satisfy the requirements under OAR 660-033-0130(38)(h)(E).

- 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*  
38 *(iii) The proposed site is better suited to allow continuation of an existing*  
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

OAR 660-033-0130(38)(h)(F) requires the certificate holder to demonstrate that the proposed expansion of solar micrositings area would not be located on high-value farmland soils or arable soils unless: 1) non high-value farmland soils are not available on the subject tract; 2) siting the 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 continued operation of existing farmland.<sup>24</sup>

Based on review of OAR 660-033-0020(8)(b)-(e) definitions of high-value farmland soils, as applicable to the location of the proposed expanded solar micrositings area, high-value farmland soils include irrigated and classified prime, unique, Class I or II soils; or, not irrigated and classified prime, unique, Class I or Class II soils. Arable soils are defined as soils suitable for cultivation, excluding high-value farmland soils.<sup>25</sup> As presented in 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 micrositings area include Class III, IV and VI – which are considered arable soils, but not high-value farmland soils.<sup>26</sup> While OAR 660-033-0130(38)(h)(F) applies to projects that could impact both high-value farmland soils and arable soils, the criteria identified in –(h)(F)(i)-(iii) are specific to projects that would impact high-value farmland soils, which are not present within the proposed expanded solar micrositings area. The Department refers to the analysis under OAR 660-033-010(38)(i) to support review of applicable criteria for impacts to arable soil.

*(G) A study area consisting of lands zoned for exclusive farm use located within one 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 been constructed or received land use approvals and obtained building permits within the study area, no further action is necessary.*
- (ii) When at least 48 acres of photovoltaic solar power generation facilities have been constructed or received land use approvals and obtained building permits, either as a single project or as multiple facilities within the study area, the local government or its designate must find that the photovoltaic solar power generation facility will not materially alter the stability of the 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 photovoltaic solar power generation facilities will make it more difficult for the existing farms and ranches in the area to continue operation due to*

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<sup>24</sup> 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.

<sup>25</sup> OAR 660-033-0330(38)(b)

<sup>26</sup> 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.

*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.*

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 micrositing area. Therefore, no further action is necessary.

*(i) For arable lands, a photovoltaic solar power generation facility shall not use, occupy, or cover more than 20 acres. The governing body or its designate must find that the following criteria are satisfied in order to approve a photovoltaic solar power generation facility on arable land.*

*(A) The project is not located on those high-value farmland soils listed in OAR 660-033-0020(8)(a);*

*(B) The project is not located on those high-value farmland soils listed in OAR 660-033-0020(8)(b)-(e) or arable soils unless it can be demonstrated that:*

- i. Nonarable soils are not available on the subject tract;*
- ii. Siting the project on nonarable soils present on the subject 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 commercial farm or ranching operation on the subject tract than other possible sites also located on the subject tract, including those comprised of nonarable soils;*

*(C) No more than 12 acres of the project will be sited on high-value farmland soils described at ORS 195.300(10);*

OAR 660-033-0130(38)(i)(A)-(C) restricts a photovoltaic solar power generation facility from occupying more than 20 acres of arable land and requires the following criteria to be met: 1) the project is not located on high-value farmland soils listed in OAR 660-033-0020(8)(a); 2) facility is not located on high-value farmland soils or arable soils unless i) nonarable soils are not available on the subject tract; ii) siting facility on nonarable soils on subject tract would significantly increase cost of project operability; or iii) proposed site is better suited to provide continuation of farming on subject tract; and 3) no more than 12 acres of high value farmland soils would be precluded by the project.

The proposed expanded solar micrositing area would use, occupy or cover more than 20 acres of arable land and therefore would not satisfy OAR 660-033-0130(38)(i) and would require a Goal 3 exception. Nonetheless, the certificate holder assesses compliance with OAR 660-033-0130(38)(i)(A)-(C) as presented below.



As described in RFA5 and in this order, based on NRCS soil classification, there are no high-value farmland soils present within the proposed expanded solar micrositings corridor and therefore the proposed solar micrositings area would satisfy OAR 660-033-0130(38)(i)(A) and (C). The proposed solar micrositings area would be located on arable soils and therefore is required to demonstrate compliance with OAR 660-033-0130(38)(i)(B).

*Availability of Nonarable Soils on Subject Tract (OAR 660-033-0130(38)(i)(B)(i))*

In RF55, the certificate holder provides a summary of NRCS soil classification by taxlot within the subject tract (see Figure 4: Proposed Solar Micrositings Expansion Areas, High-Value 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.

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: *Proposed Solar Micrositings Expansion Areas, High-Value Farmland, and Arable Land* of this order, distributed throughout the periphery of the tracts (see RFA5 Table 7).<sup>27</sup> The certificate holder describes that nonarable soils comprise approximately 13 percent of the acreage within

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<sup>27</sup> 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.

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 microsite area would not satisfy OAR 660-033-  
4 0130(38)(i)(B)(i).

5  
6 *Siting of Facility Components on Nonarable Soils would Significant Increase Cost (OAR 660-033-  
7 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  
12 and dispersed in patches in opposite areas within the subject tracts. In RFA5, the certificate  
13 holder represents that expansion of the solar microsite area by approximately 1,500 acres, as  
14 proposed, attempting to use nonarable soils could spread previously approved facility  
15 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  
18 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  
20 to farm. For these reasons, siting the proposed expansion of solar microsite 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  
23 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  
30 providing continuation of farming activities, compared to other sites on nonarable soils within  
31 the subject tract. In RFA5, the certificate holder describes that the proposed expanded solar  
32 microsite area is better suited than other areas of nonarable soils on the subject tract  
33 because it provides direct access from Bottemiller Lane, OR 19 and Weatherford Road, limiting  
34 the need for new access roads. In addition, because of Council's previous approval of solar  
35 photovoltaic energy generation equipment within a solar microsite area, expanding the  
36 microsite area adjacent to these areas is optimal for co-location, minimizing impacts and  
37 infrastructure. The proposed expanded solar microsite area would provide farm and  
38 equipment access through the site and would not be expected to negatively impact existing  
39 agricultural practices within the surrounding area. Therefore, the Department recommends  
40 Council find that the facility, with proposed RFA5 modifications, would satisfy OAR 660-033-  
41 0130(38)(i)(B)(iii).

- 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 satisfied.  
28

29 OAR 660-033-0130(38)(i)(E) requires Council to find that OAR 660-033-0130(38)(h)(A)-(D) are  
30 satisfied. As presented in this section, the Department recommends Council find that the  
31 facility, with proposed RFA5 modifications, would satisfy the requirements of OAR 660-033-  
32 0130(38)(h)(A)-(D).  
33

34 (k) An exception to the acreage and soil thresholds in subsections (g), (h), (i), and (j) of this  
35 section may be taken pursuant to ORS 197.732 and OAR chapter 660, division 4.  
36

37 OAR 660-033-0130(38)(k) establishes that, for projects that would be sited on 12 acres or more  
38 of high-value farmland or 20 acres of arable land, an exception is required pursuant to ORS  
39 197.732 and OAR Chapter 660, division 4. The proposed expanded solar micrositing area would  
40 use, occupy or cover more than 12 acres of high-value farmland and more than 20 acres of  
41 arable land from agricultural use. The Department's assessment of the applicant's Goal 3  
42 exception request is evaluated in Section III.A.4,2 *Goal 3 Exception* of this order below and  
43 recommends that the Council find that an exception to Goal 3 is justified.

1  
2       (l) *The county governing body or its designate shall require as a condition of approval for a*  
3       *photovoltaic solar power generation facility, that the project owner sign and record in*  
4       *the deed records for the county a document binding the project owner and the project*  
5       *owner's successors in interest, prohibiting them from pursuing a claim for relief or cause*  
6       *of action alleging injury from farming or forest practices as defined in ORS 30.930(2) and*  
7       *(4).*

8  
9       OAR 660-033-0130(38)(l) requires the governing body to impose a condition that the  
10      certificate holder sign and record in the deed records for the County a document binding the  
11      applicant and the applicant owner's successors in interest, prohibiting them from pursuing a  
12      claim for relief or cause of action alleging injury from farming. Condition 41 requires the  
13      certificate holder to record a Covenant Not to Sue landowners, which would be consistent with  
14      and would satisfy the requirements of this provision. Based on compliance with the existing  
15      condition, the Department recommends that Council conclude the requirements under OAR  
16      660-033-0130(38)(k) would be satisfied.

17  
18      (m) *Nothing in this section shall prevent a county from requiring a bond or other security*  
19      *from a developer or otherwise imposing on a developer the responsibility for retiring the*  
20      *photovoltaic solar power generation facility.*

21  
22      OAR 660-033-0130(38)(m) allows for the governing body to require a bond or letter of credit  
23      for the amount necessary to retire the facility during decommissioning. Existing site certificate  
24      Condition 32 requires the certificate holder to obtain a bond or letter of credit, before  
25      beginning construction. Therefore, based upon existing Condition 32, in conjunction with the  
26      Department's recommended amendment to Condition 32 contained within Section III.A.5.,  
27      *Retirement and Financial Assurance* of this order, the Department recommends that Council  
28      conclude that the requirements under OAR 660-033-0130(38)(j) would be satisfied.

29  
30      III.A.4.4 Goal 3 Exception

31  
32      The proposed solar micrositing area would be sited on more than 12 acres of high-value  
33      farmland as defined in ORS 195.300(10), and could use, occupy or cover more than 12 acres of  
34      high value farmland and more than 20 acres of arable land from use as a commercial  
35      agricultural enterprise. Therefore, the proposed expanded solar micrositing area would not  
36      comply with OAR 660-033-0130(38)(f) and -(38)(g) unless a goal exception is taken. Pursuant to  
37      ORS 469.504(1)(b)(B), non-compliance with a statewide planning goal requires a determination  
38      by the Council that an exception to Goal 3 is warranted under ORS 469.504(2) and the  
39      implementing rule at OAR 345-022-0030(4).

40  
41      Goal 2, under OAR 660-015-0020(2)(Part II), permits an "exception" to the requirement of a  
42      goal for "specific properties or situations." The text of Goal 2, part II, pertaining to exceptions is  
43      codified in ORS 197.732; however, for EFSC-jurisdictional facilities, ORS 469.504(2) establishes

the requirements that must be met for the Council to take an exception to a land use planning goal, not the LCDC rule or statute. The requirements of ORS 469.504(2) are implemented through the Council's Land Use standard at OAR 345-022-0030(4), which states:

*(4) The Council may find goal compliance for a proposed facility that does not otherwise comply with one or more statewide planning goals by taking an exception to the 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 Conservation and Development Commission pertaining to the exception process goal, the Council may take an exception to a goal if the Council finds:*

- (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;*
- (b) The land subject to the exception is irrevocably committed as described by the rules of the Land Conservation and Development Commission to uses not allowed by the applicable goal because existing adjacent uses and other relevant factors make uses allowed by the applicable goal impracticable; or*
- (c) The following standards are met:*

*(A) Reasons justify why the state policy embodied in the applicable goal should not apply;*

*(B) The significant environmental, economic, social and energy consequences anticipated as a result of the proposed facility have been identified and adverse impacts will be mitigated in accordance with rules of the Council applicable to the siting of the proposed facility; and*

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

The provisions of OAR 345-022-0030(4)(a) and (b) are not applicable to RFA5. The certificate holder submitted an assessment as to why a goal exception under OAR 345-022-0030(4)(c) is appropriate for the facility, with proposed RFA5 modifications. The Department agrees that a goal exception under OAR 345-022-0030(4)(c) is appropriate, and the Department's evaluation of the OAR 345-022-0030(4)(c) is provided below.

#### Reasons Supporting an Exception

Under OAR 345-022-0030(4)(c)(A) (and ORS 469.504(2)(c)(A)), in order for the Council to 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.

#### *Local Economic Benefits*

The certificate holder asserts that the proposed expanded solar micrositng area would promote rural economic development through job creation and by stimulating the Gilliam 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 holder indicates that Phase 1 construction resulted in an estimated \$9.2 million in local spending (within 100 miles), where similar revenue generation is expected during construction of the remaining facility components. In addition, the certificate holder spent \$15.5 million in 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 construction labor for Montague Wind represented 87 percent of Gilliam County annual payroll. Based on the data provided to represent the potential local economic benefits from the proposed expanded solar micrositng area, the Department agrees that there would be a local economic benefit realized through stimulation of the local tax base and some new employment opportunities would be created. The Department recommends the Council to conclude that this argument is a relevant “reason” justifying a Goal 3 exception.

#### *Minimal Impacts to Agriculture*

The proposed expanded solar micrositng area would remove an additional 1,536 acre of lands 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 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 consider the approximately 28 percent loss of agricultural lands within the subject tracts, and 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 payments from the certificate holder, would receive a net benefit in revenue compared to the value of dryland wheat cultivation. In support of this reason, the certificate holder provides landowner letters from Holtz, Weatherford and Weedman which confirm support of the proposed expanded solar micrositng area and confirm ability to maintain a sufficient level 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 statements provided in RFA5 Attachment 4, the Department recommends Council consider that the proposed expanded solar micrositng area would result in minimal impacts to agriculture within Gilliam County and conclude that this argument is a relevant “reason” justifying a Goal 3 exception.

1           *Lack of Water Rights on Proposed Solar Array*

2  
3     The certificate holder asserts that there are no agricultural irrigation water rights located in the  
4     proposed expanded solar micrositng area, nor is Weedman Ranch able to obtain new water  
5     rights after the expiration of water right No. G15187. The proposed expanded solar micrositng  
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  
10    micrositng area. The land is currently used for dryland winter wheat agriculture, which can be  
11    grown without irrigation. However, the Department takes the position that a lack of water right  
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  
16    a state policy embodied in the applicable goal should not apply, and the Department  
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 micrositng area were previously approved within a  
24    designated site boundary. The proposed expanded solar micrositng area would be within  
25    previously approved site boundary, adjacent to previously approved solar micrositng 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  
28    recommends the Council conclude that this argument is a relevant “reason” justifying a Goal 3  
29    exception.

30  
31           *Arguments That Do Not Qualify As “Reasons” to Justify a Goal 3 Exception*

32  
33    The certificate holder asserts that the availability of reliable renewable energy relates to the  
34    ability to recruit and retain energy-dependent businesses, which may maintain renewable  
35    energy procurement policies. The certificate holder has not provided evidence of any specific  
36    companies that are considering to expand, or move business, because of renewable energy  
37    procurement policies. Therefore, the Department finds this argument to be attenuated and  
38    lacking specifics; therefore, the Department recommends that the Council conclude that this  
39    argument is not a sufficient reason justifying a Goal 3 exception.

40  
41    The certificate holder asserts that the facility would further public and private policies,  
42    including but not limited to Oregon’s Renewable Portfolio Standard (RPS), which requires  
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 State's RPS requirements if RECs are generated and purchased by in-state utilities. However, there is no requirement in the state RPS requirements that renewable energy be procured from Oregon-based resources, nor direct facility development on agricultural lands, the Department does not consider abstract consistency with the State's RPS standard to be a sufficient "reason" justifying a Goal 3 exception for the proposed solar photovoltaic generation facility components, specifically. Therefore, the Department recommends that Council conclude that although the development of the proposed expanded micrositing area as a renewable energy source would further and advance the State's renewable energy resources policy, this is not considered a sufficient reason supporting or justifying a Goal 3 exception for the proposed facility.

### Significant Environmental, Economic, Social and Energy Consequences

Under OAR 345-022-0030(4)(c)(B) and ORS 469.504(2)(c)(B), in order for the Council to determine whether to grant an exception to a statewide planning goal, the certificate holder must show that "the significant environmental, economic, social and energy consequences" of the proposed expanded solar micrositing area have been identified and mitigated in accordance with Council standards.

#### *Environmental Consequences*

The facility, with proposed RFA5 modifications, must satisfy the requirements of all applicable EFSC standards, rules and statutes. Applicable environmental EFSC standards include: General Standard of Review; Soil Protection standard; Protected Areas standard; Recreation Standard; Scenic Resources standard; Fish and Wildlife Habitat standard; and the Threatened and 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, wetlands, fish and wildlife habitats, and threatened and endangered species. The land is 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 solar micrositing area on Category 6 habitat avoids impacts higher quality wildlife habitat that could result if the solar facility were sited elsewhere.

Based on the Department's recommended findings of fact, conclusions of law, and conditions of approval presented within this order, the Department recommends that Council find that the facility, with proposed RFA5 modifications, would not cause significant adverse environmental consequences or impacts.

#### *Economic Consequences*

The certificate holder represents that construction and operation of the facility, with proposed RFA5 modifications, would result in beneficial economic consequences from job



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

As provided in RFA5, Gilliam County has 170 farms and 723,405 acres of land in farms, with the average size of a farm at approximately 4,255 acres (2012 Census). The certificate holder proposes that removal of up to 2,725 acres (proposed expanded solar micrositng area) from agricultural production be considered insignificant when compared against how much land is 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 proposed expanded solar micrositng area could be removed from farm deferral and become taxable, which increases the tax base for Gilliam County.

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 Oregon House Bill 3492, PILOT agreements have a fixed rate of \$7,000 per nameplate of 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 2020 for the two tax lots to be occupied by Montague Solar were \$7,077. The certificate holder is not committing to use a tax deferral program at this time because these agreements are negotiated with the County and acknowledged by Business Oregon and are outside of the EFSC review process.

In addition, the facility, with proposed RFA5 modifications, would create up to three new jobs 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 experience constructing the first phase of the facility – referred as Phase 1 or Montague Wind 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 Oregon (Meyers and Cuyler, 2017) reports the total payroll in Gilliam County in 2015 as \$21.6 million. Comparatively, the certificate holder asserts that its spending during construction of the Montague Wind Facility represented 87 percent of Gilliam County annual payroll.

Based on review of the facts presented above, the Department recommends that the Council conclude that the facility, with proposed RFA5 modifications, represents a net benefit compared to the site’s existing uses and economic consequences.

### *Social Consequences*

The certificate holder represents that the facility, with proposed RFA5 modifications, would not result in significant adverse social consequences. The Department considers social consequences as impacts on a community, such as impacts from facility visibility, noise, traffic

or demand on providers of public services. As demonstrated in the applicable sections of this draft proposed order, the Department agrees that that proposed changes would not result in new or increased impacts to scenic resources, protected areas, and recreational opportunities. The Department addresses potential adverse impacts to public services in Section III.A.8, *Public Services*, and impacts to cultural resources in Section III.A.7., *Historic, Cultural and Archaeological Resources*. The Department recommends that the Council find that the proposed expanded solar micrositng area would not result in significant adverse impacts to these areas.

The certificate holder also represents that, when fully inverted, the solar panels would not exceed 15 feet, and would not present a visual issue for automobile drivers. The certificate holder further represents that “modern photovoltaic solar modules use a sophisticated antireflective coating to nearly eliminate the reflection of sunlight off the module face and are not expected to generate significant reflective glare.” While the Department is aware that “glare” may be considered a subjective concern, the Department recommends Council consider that modern solar photovoltaic technologies should not pose a significant glare impact. Based on the Department’s recommended findings of fact and conclusions of law, and recommended conditions of compliance, as presented in the order, the facility, with proposed RFA5 modifications, would not cause significant adverse social consequences.

#### *Energy Consequences*

The certificate holder represents that, because the facility, with proposed RFA5 modifications, would produce renewable energy, the energy consequences would be beneficial and would be 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 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 requirements. However, whether the sale of energy from the proposed expanded solar micrositng 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 indicates that the proposed expanded solar micrositng area would not result in significant adverse energy consequences. Based upon the above analysis, the Department recommends the Council find that the facility, with proposed RFA5 modifications, would meet the standard under OAR 345-022-0030(4)(c)(B).

#### *Compatibility of Adjacent Uses*

The Department agrees that the proposed expanded solar micrositng 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 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 Erosion and Sediment Control Plan and a Revegetation and Weed Control Plan; as well as implement best management practices to control construction-related dust; ensure that truck traffic would be limited to improved road surfaces and; provide notice to adjacent landowners relating to traffic impacts; employ flaggers, signage, and institute traffic control measures. Additionally, site certificate Condition 41 requires the certificate holder to record a “Covenant Not to Sue,” relating to generally accepted farming practices on adjacent farmland, and the landowner attests that the expansion area would not prevent continued farming operations.

### Goal 3 Conclusion of Law

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 be occupied with solar facility components, subject to compliance with the recommended amended and existing site certificate conditions.

### **Conclusions of Law**

Based on the foregoing findings and the evidence in the record, and subject to compliance with the conditions, the Department recommends Council find that an exception to Goal 3 is justified under OAR 345-022-0030(4)(c) and ORS 469.504(2)(c); and that the facility, with proposed RFA5 facility modifications, would comply with OAR 660-033-0130(38)(i) and complies with the applicable statewide planning goal (Goal 3). As such, subject to the conditions, the Department recommends Council finds that proposed RFA4 facility components would comply with the Council’s Land Use standard.

#### III.A.5 Retirement and Financial Assurance: OAR 345-022-0050

*To issue a site certificate, the Council must find that:*

*(1) The site, taking into account mitigation, can be restored adequately to a useful, non-hazardous condition following permanent cessation of construction or operation of the facility.*

*(2) The applicant has a reasonable likelihood of obtaining a bond or letter of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-hazardous condition.*

### **Findings of Fact**

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

1 either the certificate holder stop construction or should the facility cease to operate.<sup>28</sup> 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  
10 facility under the Oregon Trail Solar Facility site certificate. Tasks and actions necessary to  
11 restore the site of the switching station are described as similar to a collector substation, and  
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  
16 cost approximately \$86,085. Based on use of previously approved cost estimating  
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  
28 decommissioning estimate totals \$11.1 million, increasing the previous estimate by  
29 approximately \$1.2 million: \$8.1 million for the Montague Solar Facility; and \$3.1 million for the  
30 Oregon Trail Solar Facility. The certificate holder has not proposed to apply an adjustment  
31 factor to the decommissioning cost of shared related or supporting facilities and accounts for  
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 (1<sup>st</sup>  
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

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<sup>28</sup> OAR 345-022-0050(1).

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

Council previously imposed Condition 32 requiring that, prior to construction, the certificate holder submit to the Department a bond or letter of credit in the amount applicable to number of facility components, based on the approved decommissioning estimate methodology. Based on the changes described above, Condition 32 would be amended in each site certificate to accurately reflect the decommissioning amount applicable to the allocation of previously 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.

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, can be restored adequately to a useful, non-hazardous condition following permanent cessation of construction or operation. Additionally, the Department recommends that the Council find that the certificate holder has a reasonable likelihood of obtaining a bond or letter of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-hazardous condition.

### **Conclusions of Law**

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.

### **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:*

*(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\*\*\**

### **Findings of Fact**

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 Wildlife's (ODFW) habitat mitigation goals and standards, as set forth in OAR 635-415-0025. This rule creates requirements to mitigate impacts to fish and wildlife habitat, based on the quantity and quality of the habitat as well as the nature, extent, and duration of the potential impacts to the habitat. The rule also establishes a habitat classification system based on value

the habitat would provide to a species or group of species. There are six habitat categories; Category 1 being the most valuable and Category 6 the least valuable.

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.

The proposed expanded solar micrositing area and alternate 230 kV transmission line route would be located entirely within Category 6 habitat. Because the expansion areas are within the previously approved site boundary, the habitat assessment and categorization provided in RFA4 covered the expansion areas and therefore was previously reviewed and concurred by Oregon Department of Fish and Wildlife. Therefore, the Department recommends Council concur with the habitat categorization.

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 component allocation, and updated facility description, the Habitat Mitigation Plan, Revegetation Plan, Weed Control Plan, and Wildlife Monitoring and Mitigation Plan have been administratively amended to accurately describe the facilities and remove requirements applicable to solar or wind, as applicable. The red-line version of the draft amended plans are provided in Attachments D, E, F and G of this order.

### **Conclusions of Law**

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

#### **III.A.7 Historic, Cultural, and Archaeological Resources: OAR 345-022-0090**

*(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that the construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impacts to:*

*(a) Historic, cultural or archaeological resources that have been listed on, or would likely be listed on the National Register of Historic Places;*

*(b) For a facility on private land, archaeological objects, as defined in ORS 358.905(1)(a), or archaeological sites, as defined in ORS 358.905(1)(c); and*

*(c) For a facility on public land, archaeological sites, as defined in ORS 358.905(1)(c).*

(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). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.

\*\*\*

### **Findings of Fact**

Subsection (1) of the Historic, Cultural and Archaeological Resources standard, OAR 345-022-0090, generally requires the Council to find that the facility is not likely to result in significant adverse impacts to identified historic, cultural, or archaeological resources. Subsection (2) of OAR 345-022-0090 provides that the findings described in subsection (1) may be waived for wind and solar facilities. However, the Council may impose site certificate conditions based on the requirements of this standard.

The analysis area for the evaluation of potential impacts to identified historic, cultural or archeological resources, as defined in the Project Order, is the area within the site boundary.

### ***Description of Discovery Measures***

The certificate holder conducted literature and field surveys to evaluate the potential presence of cultural, historic or archeological resources within the additional 1,535 acres proposed for inclusion in the expanded solar micrositing area. Within the solar micrositing expansion areas, 1,474 acres were previously surveyed during a combination of survey efforts extending from the original Montague Wind Power Facility ASC, the Baseline Wind Energy Project ASC (application withdrawn), and Montague Wind Power Facility Phase 1 pre-construction surveys. The literature review, using Oregon State Historic Preservation Office's (SHPO) Archaeological Records Remote Access database, was conducted on May 28, 2020, and was specific to the 61 acres not previously surveyed and proposed alternate 230 kV transmission route.

### ***Results of Discovery Measures – Historic and Cultural Resources; Archeological Sites***

The certificate holder previously identified thirty-four cultural resources recorded within 1-mile 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 and Cultural Significance to Indian Tribes (HPRCSIT), and two potentially NRHP-eligible HPRCSITs. Within the analysis area, 11 resources were identified including 1 archaeological site (35GM306), 7 built environment properties and 3 HPRCSITs.

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 the solar micrositing area and transmission line route. As provided in RFA5, submitted as a confidential record, the four previously recorded archeological sites and isolates include archaeological site 35GM306, located adjacent to the Oregon Trail Solar micrositing area on the

1 east side. Site 35GM306 was documented as a part of the Baseline report (Ragsdale et al.,  
2 2011) and determined ineligible for listing in the NRHP. Two of the resources (1692-212i-a/b)  
3 are isolated finds and considered ineligible for listing in the NRHP. The fourth resource,  
4 35GM310, is an unevaluated, but potentially eligible resource located northeast of the  
5 intersection of Old Tree Road and OR 19. In addition, the Weatherford Barn was previously  
6 identified as a likely NRHP-eligible built environment resource.

7  
8 *Potential Impacts to Historic and Cultural Resources; Archeological Sites*  
9

10 The facility modifications proposed in RFA5 include expansion of the solar micrositng corridor  
11 on the property where the Weatherford Barn is located. In a worst-case scenario, solar  
12 components would be located within 300 feet of the Weatherford Barn to the west, north, and  
13 east. Council previously found that siting solar facility components in proximity to the  
14 Weatherford Barn could have a potentially significant impacts through the impact to setting of  
15 the resource from occupation of energy infrastructure on agricultural lands within a rural  
16 setting. Council previously imposed Condition 47 requiring that the certificate holder consult  
17 with SHPO and the Department on facility design and equipment setback distances that could  
18 reduce the impact; or, if an adequate setback distance is not established, implement a  
19 Historical Resource Mitigation Plan requiring that the certificate holder conduct a  
20 reconnaissance level survey of barns in Gilliam County or neighboring counties; partner with a  
21 third-party to fund a barn rehabilitation grant for the community; or, partner with a local  
22 historic society to develop a historic barn exhibit, to mitigate the impacts to the Weatherford  
23 Barn. While the overall impact to the resource could increase as a result of the expanded solar  
24 microstiing area and changes in facility layout requiring additional area used by solar facility  
25 components, the Department recommends Council find that the previously imposed condition  
26 would continue to reduce and mitigate the impact.

27 The Historical Resource Mitigation Plan, referenced in Condition 47(b), would only apply under  
28 the Montague Solar Facility site certificate, based on location of redefined site boundaries and  
29 proposed expanded solar micrositng area. Therefore, the plan and Condition 47(b) have been  
30 amended to account for these changes, as presented in Attachment A and H of this order.

31 To address the 61 unsurveyed acres within the proposed expanded solar micrositng area,  
32 Council previously imposed Condition 49, which requires completion of field surveys prior to  
33 construction within any areas unsurveyed for cultural resources. This type of condition,  
34 approving construction and operational activities in a site certificate without surveys, is  
35 appropriate in certain circumstances, based on historic use of the land. The 61 unsurveyed  
36 acres is within an area of historic and current agricultural use, and would have low likelihood of  
37 identification of potential resources given the level of disturbance from long-term agricultural  
38 practices. Nonetheless, if solar facility components are to be located within these areas, the  
39 certificate holder is obligated to complete pre-construction surveys in accordance with the  
40 existing condition.



Based on the discovery measures and results, and compliance with existing and amended conditions, the Department recommends that Council find that the facility, with proposed RFA5 modifications, would not be likely to result in significant adverse impacts to resources protected by the Council's Historic, Cultural and Archaeological Resources standard.

### **Conclusions of Law**

Based on the foregoing analysis, and subject to compliance with existing and recommended amended conditions, the Department recommends the Council find that the facility, with proposed RFA5 modifications, would continue to comply with the Council's Historic, Cultural, and Archaeological Resources Standard.

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

*(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that the construction and operation of the facility, taking into account 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: sewers and sewage treatment, water, storm water drainage, solid waste management, housing, traffic safety, police and fire protection, health care and schools.*

*(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). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.*

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### **Findings of Fact**

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

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 facility, with proposed RFA5 modifications, is defined as the area within and extending 10-miles from the site boundary.

In RFA5, the certificate holder proposes to expand the solar microsite area by 1,535 acres (1,189 to 2,725 acres), to allow additional flexibility in layout of previously approved solar energy generation components. The proposed expanded solar microsite area would not result in increased water use or wastewater disposal, or waste generation. In addition, the proposed expanded microsite area would not result in changes to the previous assumptions related to maximum number of workers at the site, or daily vehicle miles travelled to and from the site. Therefore, the Department recommends Council find that the facility, with proposed RFA5 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, housing, traffic safety, police, health care, or schools, to provide service. The Department, however, considers that the proposed expansion of solar microsite area, because it includes more area, could result in increased impacts due to placement of solar facility components within high-fire risk area on the ability of fire protection services to provide service, and therefore is evaluated in this section.

The proposed expanded solar microsite area is within the service territory of the North 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 water tenders, and three Type 2 structure engines. In 2009, during the Council's review of the ASC, the certificate holder obtained written confirmation from the fire district, which stated that the facility was not expected to impact their ability to provide fire protection services. However, based on Gilliam County's 2007 Community Wildfire Protection Plan, Gilliam County has been designated as a high-fire risk area. Because the North Gilliam County Rural Fire Protection District is a volunteer district, and the proposed expanded solar microsite area would include occupation of high-fire risk land, and based on the certificate holder's representation in the ASC Exhibit U – committing to provide mutual assistance for fire response, the Department recommends Council find that the proposed expanded solar microsite area could impact fire protection providers ability to provide service. Therefore, the Department recommends Council amend Condition 60, requiring 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 microsite area. The recommended amended Condition 60 would be presented the Montague Solar and Oregon Trail Solar Facility site certificates, as follows:

*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

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 agreements with fire districts for mutual assistance in fire response. The certificate  
5 holder shall meet annually with local fire protection agency personnel to discuss  
6 emergency planning and shall invite local fire protection agency personnel to observe  
7 any emergency drill or tower rescue training conducted at the facility.

### 8 9 **Conclusions of Law**

10  
11 Based on the foregoing analysis, and subject to the existing and recommended amended  
12 conditions, the Department recommends that the Council find that the facility, with proposed  
13 RFA5 facility modifications, would continue to comply with the Council's Public Services  
14 standard.

#### 15 16 **III.A.9 Siting Standards for Transmission Lines: OAR 345-024-0090**

17  
18 *To issue a site certificate for a facility that includes any transmission line under Council*  
19 *jurisdiction, the Council must find that the applicant:*

- 20  
21 *(1) Can design, construct and operate the proposed transmission line so that alternating*  
22 *current electric fields do not exceed 9 kV per meter at one meter above the ground*  
23 *surface in areas accessible to the public;*  
24 *(2) Can design, construct and operate the proposed transmission line so that induced*  
25 *currents resulting from the transmission line and related or supporting facilities will be*  
26 *as low as reasonably achievable.*

### 27 28 **Findings of Fact**

29  
30 This standard addresses safety hazards associated with electric fields around transmission lines.  
31 Section (1) of OAR 345-024-0090 sets a limit for electric fields from transmission lines of not  
32 more than 9 kV per meter at one meter above the ground surface in areas that are accessible to  
33 the public. Section (2) requires implementation of measures to reduce the risk of induced  
34 current.

35  
36 In RFA5, the certificate holder proposes an alternate 230 kV transmission line route for an  
37 approximately 3.6 mile segment of the previously approved 14 mile line. The certificate holder  
38 asserts that the modeled electric fields included in RFA4, which present 0.03 kV per meter  
39 within 100 feet of the transmission line centerline, would not be impacted as a result of the  
40 proposed route change. Based on review of RFA4 Exhibit AA Attachments AA-3 and AA-4, the  
41 Department agrees that the modeling assumptions and results remain valid and would not be  
42 impacted by the proposed route change. Similarly, because the certificate holder previously  
43 evaluated and received approved for construction and operation of a 14-mile 230 kV

transmission line, the route change would not be expected to affect or change the risk of induced current previously evaluated.

Council previously imposed Condition 89 to reduce human exposure to electromagnetic fields, including a setback from transmission line structures to residences or other occupied structures of 200 feet. The 200 foot setback is consistent with the informational requirement under OAR 345-021-0010(1)(aa)(ii), where during the ASC or site certificate amendment process, an 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 represented that it would not site transmission structures within 200 feet of an occupied structures, which was then imposed as a condition requirement.

In RFA5, the certificate holder requests that this provision be removed because the proposed 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 the standard, is far greater than National Electric Safety Code conductor clearance requirements, and was imposed based on an applicant representation rather than an actual regulatory requirement, the Department recommends Council amend the condition as requested, as follows:

*Montague Wind Power, Montague Solar, and Oregon Trail Solar Facilities*

Recommended Amended Condition 80: The certificate holder shall take reasonable steps to reduce or manage human exposure to electromagnetic fields, including but not limited to:

~~Constructing all aboveground transmission lines at least 200 feet from any residence or other occupied structure, measured from the centerline of the transmission line~~

- 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
- 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.
- c. Designing and maintaining all transmission lines so that induced voltages during operation are as low as reasonably achievable.

[AMD5]

**Conclusion of Law**

For the reasons discussed above, and subject to compliance with the existing and amended site 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 345-024-0090 would comply with the Council's Siting Standards for Transmission Lines.

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

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 Oregon statutes and administrative rules...as applicable to the issuance of a site certificate for the proposed facility." This section addresses the applicable Oregon statutes and administrative rules that are not otherwise addressed in Council standards, including noise control regulations, regulations for removal or fill of material affecting waters of the state, and regulations for appropriating ground water.

III.A.10.1 Noise Control Regulations: OAR 340-035-0035

*(1) Standards and Regulations:*

\*\*\*

*(b) New Noise Sources:*

*(B) New Sources Located on Previously Unused Site:*

*(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 permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels 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 (1)(b)(B)(iii).*

*(ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (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.*

*(iii) For noise levels generated or caused by a wind energy facility:*

*(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 background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.*

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

1 **Findings of Fact**

2  
3 The Department of Environmental Quality (DEQ) noise control regulations at OAR 340-035-0035  
4 have been adopted by Council as the compliance requirements for EFSC-jurisdiction energy  
5 facilities.

6  
7 The noise impact analysis area includes the area within and extending 1-mile from the site  
8 boundary.

9  
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  
14 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;  
24 the requirements of OAR 340-035-0035(1)(b)(B)(iii) apply to noise levels generated by a “wind  
25 energy facility.”<sup>29</sup>Council previously determined that because the facility was originally  
26 approved as a wind facility, and continues to include wind energy generation equipment along  
27 with solar components, that the provisions in -0035(1)(b)(B)(ii) specific to a wind facility  
28 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  
32 Noise generated by a wind energy facility or a new industrial or commercial source located on a  
33 previously unused site must comply with two standards: the “ambient noise degradation  
34 standard” and the “maximum allowable noise standard.” Under the ambient noise degradation  
35 standard, facility-generated noise must not increase the ambient hourly L10 or L50 noise levels  
36 at any noise sensitive property by more than 10 dBA. For a wind energy facility, this evaluation  
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  
39 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

---

<sup>29</sup> OAR 340-035-0035(1)(b)(A).

components, along with solar components, the Department recommends Council continue to allow use of the assumed 26 dBA noise level for this analysis.

To demonstrate compliance with the ambient noise degradation standard, noise generated during facility operation must not cause the hourly L50 noise level at any noise-sensitive property to exceed 10 dBA above measured ambient noise levels.

Under the maximum allowable noise standard at OAR 340-035-0035(1)(b)(B)(i), industrial or commercial noise sources may not exceed the noise levels specified in the noise rules, as represented in Table 2, *Statistical Noise Limits for Industrial and Commercial Noise Sources* below.

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

| Statistical Descriptor <sup>1</sup>  | Maximum Permissible Hourly Statistical Noise Levels (dBA) |                                   |
|--|---|-----------------------------------|
|  | Daytime<br>(7:00 AM - 10:00 PM)                           | Nighttime<br>(10:00 PM - 7:00 AM) |
| L50  | 55  | 50                                |
| L10  | 60  | 55                                |
| L1   | 75  | 60                                |
| Notes:<br>1. The hourly L50, L10 and L1 noise levels are defined as the noise levels equaled or exceeded 50 percent, 10 percent, and 1 percent of the hour, respectively.<br>Source: OAR 340-035-0035, Table 8 |   |                                   |

### *Potential Noise Impacts*

The Department evaluates the certificate holder's assessment of operational noise from the 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 same as evaluated in the Final Order on RFA4. In the Final Order on RFA4, noise generated from clearing, excavation, foundation, erection and finishing would result from operation of construction equipment and predicted sound pressure levels at specific distances such as: air compressor (81 dBA at 50 ft), backhoe (85 dBA at 50 ft), pile driver (101 dBA at 50 ft), grader (85 dBA at 50 ft), loader (79 dBA at 50 ft), saw (78 dBA at 50 ft), and trucks (91 dBA at 50 ft). Predicted sound pressure levels from construction phases would result range from 90 to 60 dBA at 50 and 1,500 feet, respectively.

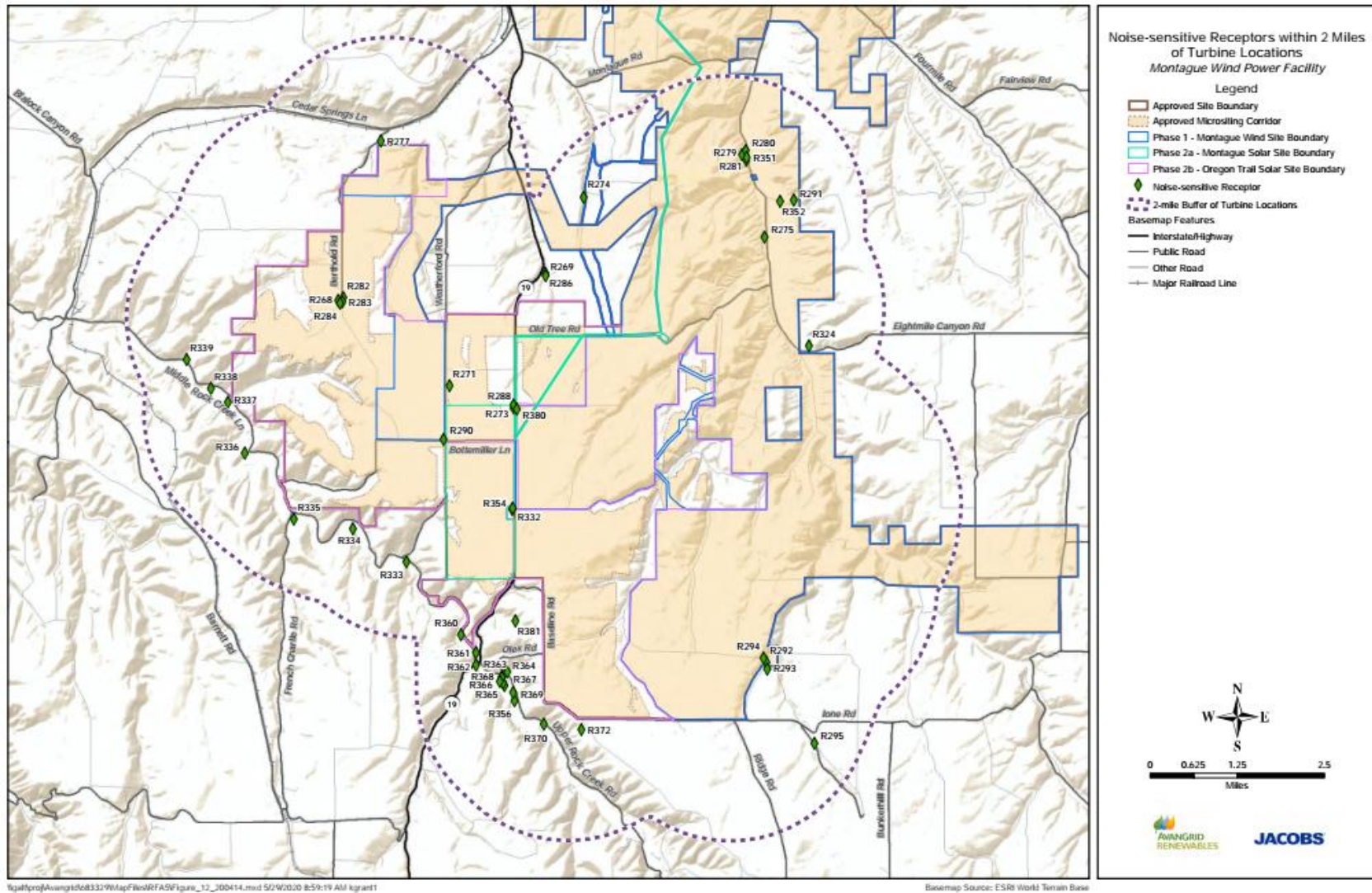
In RFA5, the certificate holder proposes to expand the solar micro-siting area from 1,189 to 2,725 acres, to allow additional flexibility in the layout of previously approved solar photovoltaic energy generation equipment. RFA5 proposes a new related or supporting facility, a switching station. The switching station would include circuit breakers, switches and other 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.

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



2

*Ambient Noise Degradation Standard*

The ambient noise degradation standard requires a demonstration that noise generated during facility operation must not cause the hourly L50 noise level at any noise-sensitive property to exceed 10 dBA above ambient or, in this case, 36 dBA. Based upon the certificate holder's noise analysis, maximum noise levels within the proposed expanded solar micrositing area at each potentially impacted noise sensitive property (presented in paren) were modeled at 29 (R360), 38 (R290) and 40 (R332) dBA. Predicted noise levels at noise sensitive property R290 and R332 would exceed the ambient antidegradation standard, which would be within the Montague Solar Facility site boundary. In accordance with OAR 340-035-0035(1)(b)(iii)(III) the noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 2, above), if the person who owns the noise sensitive property executes a legally effective easement or real covenant.

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 facility, rather than apply different requirements to different facility components. The Montague Solar Facility, as proposed in RFA5, would include shared wind facility components. If 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 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 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 comply with OAR 340-035-0035(1)(b)(B)(ii), for commercial and industrial noise sources.

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 certificate holder to provide the Department with copies of executed easements or real 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 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 the affected property owners authorizing the facility to increase the ambient statistical noise 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, 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 degradation limit.

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  
8 based on final facility design and layout, using the maximum sound power level for all noise  
9 generating equipment. Council previously imposed Condition 108 requiring that the certificate  
10 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  
22 The Oregon Removal-Fill Law (ORS 196.795 through 196.990) and Department of State Lands  
23 (DSL) regulations (OAR 141-085-0500 through 141-085-0785) require a removal-fill permit if 50  
24 cubic yards or more of material is removed, filled, or altered within any “waters of the state.”<sup>30</sup>  
25 The Council, in consultation with the Oregon Department of State Lands (DSL), must determine  
26 whether a removal-fill permit is needed and if so, whether a removal-fill permit should be  
27 issued.

28  
29 **Findings of Fact**

30  
31 In RFA5, the certificate holder proposes to expand the solar micrositing area by approximately  
32 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.

---

<sup>30</sup> ORS 196.800(15) defines “Waters of this state.” The term includes wetlands and certain other waterbodies.

Based on desktop and field surveys, the certificate holder identifies that the proposed expanded solar microsite area would not impact or be located on or within jurisdictional waters of the state and therefore would not require a removal-fill permit. Council previously imposed Condition 83, requiring that, prior to construction, the certificate holder conduct wetland surveys in any unsurveyed area, which would continue to apply. In certain circumstances, the Council may allow for site certificates to include conditions deferring a survey requirement – particularly in areas considered unlikely to contain jurisdictional waters of the state given current land use practices. Compliance with Condition 83 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.

### **Conclusions of Law**

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

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

RFA5, as described throughout this order, requests authorization to split, and share some, previously approved facility components within previously approved site boundary, but redefined based on specific facility components covered in each site certificate. Based on the largely administrative nature of the amendment request, with the exception of substantive changes evaluated in Section III.A. *Standards Potential Impacted by Request for Amendment 5*, the Department recommends Council find that the Council's findings on the record of the EFSC proceedings for the Montague Wind Power Facility from 2010-2019 would not be impacted for the standards listed below.

Sections III.B.1 through III.B.9 present the language of the identified standards and other applicable laws and regulations not likely to be impacted by RFA5, for reference purposes only.

#### **III.B.1 Structural Standard: OAR 345-022-0020**

*(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that:*

*(b) The applicant, through appropriate site-specific study, has adequately characterized the seismic hazard risk of the site;*

*(c) The applicant can design, engineer, and construct the facility to avoid dangers to human safety and the environment presented by seismic hazards affecting the site, 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          (g) National recreation and scenic areas, including but not limited to Oregon Dunes  
14 National Recreation Area, Hell's Canyon National Recreation Area, and the Oregon  
15 Cascades Recreation Area, and Columbia River Gorge 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          (j) State estuarine sanctuaries, including but not limited to South Slough 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 seq., and those waterways and rivers listed  
28 as potentials for designation;

29  
30          (l) 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          *(3) The provisions of section (1) do not apply to transmission lines or natural gas*  
17          *pipelines routed within 500 feet of an existing utility right-of-way containing at least one*  
18          *transmission line with a voltage rating of 115 kilovolts or higher or containing at least*  
19          *one natural gas pipeline of 8 inches or greater diameter that is operated at a pressure of*  
20          *125 psig.*

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  
34                  *(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*  
36                  *likelihood of survival or recovery of the species; and*

37  
38          *(2) For wildlife species that the Oregon Fish and Wildlife Commission has listed as*  
39          *threatened or endangered under ORS 496.172(2), the design, construction and*  
40          *operation of the proposed facility, taking into account mitigation, are not likely to*  
41          *cause a significant reduction in the likelihood of survival or recovery of the species.*  
42



1 III.B.4 Scenic Resources: OAR 345-022-0080

2  
3 *(1) Except for facilities described in section (2), to issue a site certificate, the Council*  
4 *must find that the design, construction and operation of the facility, taking into*  
5 *account mitigation, 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 III.B.5 Recreation: OAR 345-022-0100

11  
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

\*\*\*<sup>31</sup>

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 distance between setback and micrositing areas. Therefore, the Department recommends  
33 Council administratively remove Condition 105 from the Montague Solar Facility and Oregon  
34 Trail Solar Facility site certificates, as presented below.

35  
36 *Montague Solar Facility and Oregon 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~~

---

<sup>31</sup> RFA4 facility components do not represent a special criteria facility under OAR 345-0015-0310; therefore, OAR 345-022-0100(2) is not applicable.

~~89-42-34 W from latitude, longitude: 45.622047, -120.044112) as described in the Final Order on the Application.~~  
[Final Order on ASC; AMD5]

III.B.6 Waste Minimization: OAR 345-022-0120

*(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that, to the extent reasonably practicable:*

*(b) The applicant's solid waste and wastewater plans are likely to minimize generation of solid waste and wastewater in the construction and operation of the facility, and when solid waste or wastewater is generated, to result in recycling and reuse of such wastes;*

*(c) The applicant's plans to manage the accumulation, storage, disposal and transportation of waste generated by the construction and operation of the facility are likely to result in minimal adverse impact on surrounding and adjacent areas.*

*(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). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.*

\*\*\*

III.B.7 Public Health and Safety Standards for Wind Energy Facilities: OAR 345-024-0010

*To issue a site certificate for a proposed wind energy facility, the Council must find that the applicant:*

*(1) Can design, construct and operate the facility to exclude members of the public from close proximity to the turbine blades and electrical equipment.*

*(2) Can design, construct and operate the facility to preclude structural failure of the tower or blades that could endanger the public safety and to have adequate safety devices and testing procedures designed to warn of impending failure and to minimize the consequences of such failure.*

III.B.8 Cumulative Effects Standard for Wind Energy Facilities [OAR 345-024-0015]

*To issue a site certificate for a proposed wind energy facility, the Council must find that the applicant can design and construct the facility to reduce cumulative adverse environmental effects in the vicinity by practicable measures including, but not limited to, the following:*

1       (1) Using existing roads to provide access to the facility site, or if new roads are needed,  
2       minimizing the amount of land used for new roads and locating them to reduce adverse  
3       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 14      III.B.9 Water Rights

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  
18      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

25  
26      Based on the recommended findings and conclusions included in this order, the Department  
27      recommends that Council make the following findings:

- 28  
29           1. The proposed facility modifications included in Request for Amendment 5 of the  
30           Montague Wind Power Facility site certificate complies with the requirements of the  
31           Oregon Energy Facility Siting Statutes, ORS 469.300 to 469.520.  
32  
33           2. The proposed facility modifications included in Request for Amendment 5 of the  
34           Montague Wind Power Facility site certificate complies with the standards adopted  
35           by the Council pursuant to ORS 469.501.  
36  
37           3. The proposed facility modifications included in Request for Amendment 5 of the  
38           Montague Wind Power Facility site certificate complies with all other Oregon  
39           statutes and administrative rules identified in the project order as applicable to the  
40           issuance of a site certificate for the proposed facility.

41  
42      Accordingly, the Department recommends that the Council find that the proposed facility  
43      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.

4  
5 **Draft Proposed Order**

6  
7 The Department recommends that the Council approve Amendment 5 of the Montague Wind  
8 Power Facility site certificate.

9  
10 **Issued this 26<sup>th</sup> day of June 2020**

**The OREGON DEPARTMENT OF ENERGY**

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

**Attachments:**

Attachment A Draft Site Certificates

Draft Amended Montague Wind Facility Site Certificate

Draft Montague Solar Facility Site Certificate

Draft Oregon Trail Solar Facility Site Certificate

Comparison Table of Site Certificate Conditions (to be included in Proposed Order)

Attachment B

Reviewing Agency Comments on preliminary Request for Amendment 5

Attachment C

[Reserved for Draft Proposed Order Comments/Index]

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

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

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

**Attachment A Draft Amended and Original Site Certificates**

Draft Amended Montague Wind Facility Site Certificate

Draft Montague Solar Facility Site Certificate

Draft Oregon Trail Solar Facility Site Certificate

Comparison Table of Site Certificate Conditions (to be included in Proposed Order)

ENERGY FACILITY SITING COUNCIL  
OF THE  
STATE OF OREGON

~~Fourth~~Fifth Amended Site Certificate  
for the  
Montague Wind Power Facility

~~August 23, 2019~~

2020

## I. INTRODUCTION

The Oregon Energy Facility Siting Council (Council) issues this amended 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), a wholly owned subsidiary of Avangrid Renewables, LLC (parent company) authorizing the certificate holder to construct and operate the facility in Gilliam County, Oregon. ~~[Amendment #3] 4]~~

The findings of fact, reasoning and conclusions of law underlying the terms and conditions of this amended site certificate are set forth in the following documents, incorporated herein by this reference: (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 issued on June 21, 2013; ~~and~~, (c) the Final Order on Amendment #2 issued on December 4, 2015; (d) the Final Order on Amendment #3 issued on July 11, 2017; ~~and~~ (e) the Final Order on Amendment #4 issued on August 23, 2019; and (f) the Final Order on Amendment #5 issued on TBD, 2020. In interpreting this site certificate, any ambiguity will be clarified by reference to the following, in order of priority: (1) this ~~Fourth~~Fifth Amended Site Certificate, (2) the Final Order on Amendment #~~4~~5, (3) the Final Order on Amendment #~~34~~3, (4) the Final Order on Amendment #~~23~~2, (5) the Final Order on Amendment #~~1~~2, (6) the Final Order on Amendment #1, (7) the Final Order on the Application, ~~and (7)(8)~~ the record of the proceedings that led to the Final Order on the Application, the Final Order on Amendment #1, ~~and~~ the Final Order on Amendment #~~2~~2; Final Order on Amendment #3; Final Order on Amendment #4; and the Final Order on Amendment #5. [Amendment #2]

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

## II. SITE CERTIFICATION

- (a) To the extent authorized by state law and subject to the conditions set forth herein, the State authorizes the certificate holder to construct, operate and retire a wind ~~and photovoltaic (PV) solar~~ energy facility, together with certain related or supporting facilities, at the site in Gilliam County, Oregon, as described in Section III of this site certificate. 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).
- (c) This site certificate does not address, and is not binding with respect to, matters that were not addressed in the Final Order on the Application, Final Order on Amendment #1 Final Order on Amendment #2, Final Order on Amendment #3, Final Order on Amendment #4, and Final Order on Amendment #~~4~~5. Such matters include, but are not limited to: building code compliance, wage, hour and other labor regulations, local government fees and charges and other design or operational issues that do not relate to siting the facility (ORS 469.401(4)) and permits issued under statutes and rules for



which the decision on compliance has been delegated by the federal government to a state agency other than the Council. 469.503(3). [ASC; AMD1; AMD2; AMD3; AMD4; ~~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).

(f) Subject to the conditions herein, this site certificate binds the State and all counties, cities and political subdivisions in Oregon as to the approval of the site and the construction, operation and retirement of the facility as to matters that are addressed in and governed by this site certificate. ORS 469.401(3).

(g) Each affected state agency, county, city and political subdivision in Oregon with authority to issue a permit, license or other approval addressed in or governed by this site certificate shall, upon submission of the proper application and payment of the proper fees, but without hearings or other proceedings, issue such permit, license or other approval subject only to conditions set forth in this site certificate. ORS 469.401(3).

(h) After issuance of this site certificate, each state agency or local government agency that issues a permit, license or other approval for the facility shall continue to exercise enforcement authority over such permit, license or other approval. ORS 469.401(3).

(i) After issuance of this site certificate, the Council shall have continuing authority over the site and may inspect, or direct the Oregon Department of Energy (Department) to inspect, or request another state agency or local government to inspect, the site at any time in order to ensure that the facility is being operated consistently with the terms and conditions of this site certificate. ORS 469.430.

(j) Following the completion of pre-construction surveys required by this site certificate, the Department will present the results of those surveys and required consultations at the next regularly scheduled Council meeting. [AMD2]

### III. DESCRIPTION

#### 1. The Facility

##### (a) The Energy Facility

The Montague Wind Power Facility is an electric power generating plant ~~developed in two phases, Phase 1 and Phase 2. Phase 1 consists~~consisting of 56 wind turbines, each consisting of a nacelle, a three-

1 bladed rotor, turbine tower and foundations. The nacelle houses the equipment such as the gearbox,  
2 generator, brakes, and control systems for the turbines.

3 ~~Phase 2 is approved to consist of a combination of up to 81 wind turbines and a solar photovoltaic array~~  
4 ~~on up to 1,189 acres. The solar array would be composed of solar modules, which are themselves~~  
5 ~~composed of either mono-crystalline or poly-crystalline cells. In addition to the solar modules, the array~~  
6 ~~would also include a tracker system to allow the solar modules to follow the path of the sun throughout~~  
7 ~~the day; cables; inverters; and transformers. The solar array would be connected to the power collection~~  
8 ~~system as described below.~~ The energy facility is described further in the Final Order on the Application,  
9 Final Order on Amendment #1, Final Order on Amendment #2, Final Order on Amendment #3, ~~and the~~  
10 Final Order on Amendment #4, and Final Order on Amendment #5.

#### 11 **(b) Related or Supporting Facilities**

12 The facility includes the following related or supporting facilities described below and in greater detail in  
13 the Final Order on the Application, Final Order on Amendment #1, Final Order on Amendment #2, Final  
14 Order on Amendment #3, ~~and the~~ Final Order on Amendment #4, and Final Order on Amendment #5:

- 15 • Power collection system
- 16 • Control system
- 17 • Collector sSubstations and 230-kV transmission lines
- 18 • ~~Battery storage system~~
- 19 • Meteorological towers
- 20 • Operations and maintenance ~~facilities~~(O&M) building
- 21 • Access roads
- 22 • Public roadway modifications
- 23 • Temporary construction areas

#### 24 **Power Collection System**

25 A power collection system operating at 34.5 kilovolts (kV) transports power from each turbine to a  
26 collector substation. To the extent practicable, the collection system is installed underground at a depth  
27 of at least three ~~feet~~feet. Not more than 27 miles of the collector system combined across facility phases  
28 is installed aboveground.

#### 29 **Control System**

30 A fiber optic communications network links the wind turbines to a central computer at the Montague  
31 Wind O&M buildings~~building~~. A Supervisory, Control and Data Acquisition (SCADA) system collects  
32 operating and performance data from each wind turbine and from the facility as a whole and allows  
33 remote operation of the wind turbines. The control system is shared with the Montague Solar facility  
34 and the Oregon Trail Solar facility.

## **Collector Substations and 230-kV Transmission Lines**

The facility includes ~~two collector substations, one associated with Phase 1, a substation (“Montague Wind substation”) and the second associated with Phase 2. An~~ aboveground, single-circuit 230-kV transmission line ~~connects the Phase 2 substation to the Phase 1 substation. An aboveground, single-circuit 230-kV transmission line that~~ connects the Montague Wind substation to the 500-kV Slatt-Buckley transmission line owned by the Bonneville Power Administration (BPA) at the Slatt substation. The Montague Wind substation and aboveground, single-circuit 230-kV transmission line are shared with the Montague Solar facility, and the Oregon Trail Solar facility.

## **Battery Storage**

~~Phase 2 is approved to include a battery storage system. The battery storage system would be capable of storing up to 100-MW of wind or solar energy generated by the Facility, and would be used to stabilize the wind or solar resource through dispatching of energy stored in the battery system. The 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 are composed of a variety of different technologies; however, all flow batteries dispatch electricity by allowing the migration of electrons from a positive ion tank to a negative ion tank. The electrons migrate between solutions via a membrane.~~

## **Meteorological Towers**

The facility includes up to ~~eight~~four permanent meteorological towers.

## **Operations and Maintenance Facilities**

The facility includes ~~two~~one operations and maintenance (O&M) ~~facilities, one associated with building (“Montague Wind and the second with Phase 2-O&M building”).~~ An on-site well at ~~each the Montague Wind O&M facility building~~ supplies water for use during facility operation. Sewage is discharged to an Oregon Department of Environmental Quality (DEQ)-permitted on-site septic system.

## **Access Roads**

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

## **Public Roadway Modifications**

The certificate holder may construct improvements to existing state and county public roads that are 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 Oregon Department of Transportation, depending on the location of the improvement.

## **Temporary Construction Areas**

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.

### **(c) Shared Related or Supporting Facilities**

The site certificates for the Montague Wind Power Facility, Montague Solar Facility and Oregon Trail Solar Facility were originally approved as one site certificate for the Montague Wind Power Facility (September 2010 – September 2019). In XX 2020, facility components were split or allocated into three separate site certificates, but identified that certain related or supporting facilities would be shared or used by each facility. Sharing of facility components, or use by multiple facilities, is allowable in the EFSC 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.

The certificate holder is authorized to share related or supporting facilities between the Montague Wind Power Facility, Montague Solar Facility and Oregon Trail Solar Facility, including the Montague Wind collector substation, 230 kV transmission line, temporary laydown areas, and access roads. These related or supporting facilities are included in each site certificate. Compliance responsibility with site certificate conditions and EFSC standards which apply to these shared related or supporting facilities are shared between site certificates and certificate holders. In accordance with Condition 118, if any certificate holder substantially modifies a shared related or supporting facility or ceases facility operation, each certificate holder would be obligated to submit an amendment determination request or request for amendment to the Department to determine the appropriate process for evaluating the change and ensuring full regulatory coverage under each site certificate, or remaining site certificate if either is terminated, in the future. Additionally, each certificate holder is obligated to demonstrate to 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.

## **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**

This section lists conditions required by OAR 345-025-0006 (Mandatory Conditions in Site Certificates), OAR 345-025-0010 (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 should be read together with the specific facility conditions listed in Section V to ensure compliance with the siting standards of OAR Chapter 345, Divisions 22 and 24, and to protect the public health and safety. In these conditions the definitions in OAR 345-001-0010 apply.

The obligation of the certificate holder to report information to the Oregon Department of Energy (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

1 and the Council will not publicly disclose information that may be exempt from public disclosure if the  
2 certificate holder has clearly labeled such information and stated the basis for the exemption at the time  
3 of submitting the information to the Department or the Council. If the Council or the Department  
4 receives a request for the disclosure of the information, the Council or the Department, as appropriate,  
5 will make a reasonable attempt to notify the certificate holder and will refer the matter to the Attorney  
6 General for a determination of whether the exemption is applicable, pursuant to ORS 192.450.

7 In addition to these conditions, the site certificate holder is subject to all conditions and requirements  
8 contained in the rules of the Council and in local ordinances and state law in effect on the date the  
9 certificate is executed. Under ORS 469.401(2), upon a clear showing of a significant threat to the public  
10 health, safety or the environment that requires application of later-adopted laws or rules, the Council  
11 may require compliance with such later-adopted laws or rules.

12 The Council recognizes that many specific tasks related to the design, construction, operation and  
13 retirement of the facility will be undertaken by the certificate holder's agents or contractors.  
14 Nevertheless, the certificate holder is responsible for ensuring compliance with all provisions of the site  
15 certificate.

16 1 OAR 345-025-0006(1): The Council shall not change the conditions of the site certificate except  
17 as provided for in OAR Chapter 345, Division 27.

18 2 OAR 345-025-0006(2): The certificate holder shall submit a legal description of the site to the  
19 Department of Energy within 90 days after beginning operation of the facility. The legal  
20 description required by this rule means a description of metes and bounds or a description of  
21 the site by reference to a map and geographic data that clearly and specifically identifies the  
22 outer boundaries that contain all parts of the facility.

23 3 OAR 345-025-0006(3): The certificate holder shall design, construct, operate and retire the  
24 facility:

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

26 (b) In compliance with the requirements of ORS Chapter 469, applicable Council rules, and  
27 applicable state and local laws, rules and ordinances in effect at the time the site  
28 certificate is issued; and (c) In compliance with all applicable permit requirements of  
29 other state agencies.

30 4 OAR 345-025-0006(4): The certificate holder shall begin and complete construction of the  
31 facility by the dates specified in the site certificate. (See Conditions 24 and 25)

32 5 OAR 345-025-0006(5): Except as necessary for the initial survey or as otherwise allowed for wind  
33 energy facilities, transmission lines or pipelines under this section, the certificate holder shall  
34 not begin construction, as defined in OAR 345-001-0010, or create a clearing on any part of the  
35 site until the certificate holder has construction rights on all parts of the site. For the purpose of  
36 this rule, "construction rights" means the legal right to engage in construction activities. For  
37 wind energy facilities, transmission lines or pipelines, if the certificate holder does not have  
38 construction rights on all parts of the site, the certificate holder may nevertheless begin  
39 construction, as defined in OAR 345-001-0010, or create a clearing on a part of the site if the  
40 certificate holder has construction rights on that part of the site and:

(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 during the certificate holder's negotiations to acquire construction rights on another part of the site; or

(b) The certificate holder would construct and operate part of a wind energy facility on that part of the site even if other parts of the facility were modified by amendment of the site certificate or were not built.

6 OAR 345-025-0006(6): If the certificate holder becomes aware of a significant environmental change or impact attributable to the facility, the certificate holder shall, as soon as possible, submit a written report to the Department describing the impact on the facility and any affected site certificate conditions. [AMD4]

7 OAR 345-025-0006(7): The certificate holder shall prevent the development of any conditions on the site that would preclude restoration of the site to a useful, non-hazardous condition to the extent that prevention of such site conditions is within the control of the certificate holder.

8 OAR 345-025-0006(8): Before beginning construction of the facility or a phase of the facility, the certificate holder shall submit to the State of Oregon, through the Council, a bond or letter of credit, in a form and amount satisfactory to the Council to restore the site or a portion of the site to a useful, non-hazardous condition. The certificate holder shall maintain a bond or letter of credit in effect at all times until the facility or the phase of the facility has been retired. The Council may specify different amounts for the bond or letter of credit during construction and during operation of the facility or a phase of the facility. (See Condition 32.) [AMD4]

9 OAR 345-025-0006(9): The certificate holder shall retire the facility if the certificate holder permanently ceases construction or operation of the facility. The certificate holder shall retire the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110. The certificate holder shall pay the actual cost to restore the site to a useful, non-hazardous condition at the time of retirement, notwithstanding the Council's approval in the site certificate of an estimated amount required to restore the site.

10 OAR 345-025-0006(10): The Council shall include as conditions in the site certificate all representations in the site certificate application and supporting record the Council deems to be binding commitments made by the applicant.

11 OAR 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.

12 OAR 345-025-0006(12): The certificate holder shall design, engineer and construct the facility to avoid dangers to human safety and the environment presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events. As used in this rule "seismic hazard" includes ground shaking, ground failure, landslide, liquefaction triggering and consequences (including flow failure, settlement buoyancy, and lateral spreading, cyclic

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. [AMD4]

13 OAR 345-025-0006(13): The certificate holder shall notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if site investigations or trenching reveal that conditions in the foundation rocks differ significantly from those described in the application for a site certificate. After the Department receives the notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division to propose and implement corrective or mitigation actions.

14 OAR 345-025-0006(14): The certificate holder shall notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if shear zones, artesian aquifers, deformations or clastic dikes are found at or in the vicinity of the site. After the Department receives notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division to propose and implement corrective or mitigation actions. [AMD4]

15 OAR 345-025-0006(15): Before any transfer of ownership of the facility or ownership of the site certificate holder, the certificate holder shall inform the Department of the proposed new owners. The requirements of OAR 345-027-~~01000~~400 apply to any transfer of ownership that requires a transfer of the site certificate.

16 OAR 345-025-0006(16): If the Council finds that the certificate holder has permanently ceased construction or operation of the facility without retiring the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110, the Council shall notify the certificate holder and request that the certificate holder submit a proposed final retirement plan to the Department within a reasonable time not to exceed 90 days. If the certificate holder does not submit a proposed final retirement plan by the specified date, the Council may direct the Department to prepare a proposed final retirement plan for the Council's approval. Upon the Council's approval of the final retirement plan, the Council may draw on the bond or letter of credit described in OAR 345-027-0020(8) to restore the site to a useful, non-hazardous condition according to the final retirement plan, in addition to any penalties the Council may impose under OAR Chapter 345, Division 29. If the amount of the bond or letter of credit is insufficient to pay the actual cost of retirement, the certificate holder shall pay any additional cost necessary to restore the site to a useful, non-hazardous condition. After completion of site restoration, the Council shall issue an order to terminate the site certificate if the Council finds that the facility has been retired according to the approved final retirement plan.

17 ~~OAR 35-027-0023(4)~~:

~~(a) The certificate holder shall design, construct and operate the transmission line in accordance with the requirements of the National Electrical Safety Code approved on June 3, 2011, by the 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 3~~AMD3, Removed by Amendment AMD4]

18 OAR 345-025-0010(5): The certificate holder is authorized to construct a 230-kV transmission line anywhere within the approved corridor, subject to the conditions of the site certificate. The approved corridor is ½-mile in width and extends approximately ~~14-10.8~~ miles from the ~~Phase Montague Wind 2 collector substation to the Phase 1~~ collector substation to BPA's Slatt Substation as presented in Figure 1 of the site certificate.  
[OAR 345-025-0010(5); ASC; ~~AMD4~~AMD5]

19 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]

20 OAR 345-026-0048: Following receipt of the site certificate or an amended site certificate, the certificate holder shall implement a plan that verifies compliance with all site certificate terms and conditions and applicable statutes and rules. As a part of the compliance plan, to verify compliance with the requirement to begin construction by the date specified in the site certificate, the certificate holder shall report promptly to the Department of Energy when construction begins. Construction is defined in OAR 345-001-0010. In reporting the beginning of construction, the certificate holder shall describe all work on the site performed before beginning construction, including work performed before the Council issued the site certificate, and shall state the cost of that work. For the purpose of this exhibit, "work on the site" means any work within a site or corridor, other than surveying, exploration or other activities to define 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.

21 OAR 345-026-0080: The certificate holder shall report according to the following requirements:

(a) General reporting obligation for energy facilities under construction or operating:

- (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.

- (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.

(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

(b) In the annual report, the certificate holder shall include the following information for the calendar year preceding the date of the report:

- (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.
- (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.
- (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.
- (iv) 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.
- (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.
- (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.

~~(vii)...~~

1 22 OAR 345-026-0105: The certificate holder and the Department of Energy shall exchange copies  
2 of all correspondence or summaries of correspondence related to compliance with statutes,  
3 rules and local ordinances on which the Council determined compliance, except for material  
4 withheld from public disclosure under state or federal law or under Council rules. The certificate  
5 holder may submit abstracts of reports in place of full reports; however, the certificate holder  
6 shall provide full copies of abstracted reports and any summarized correspondence at the  
7 request 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-caused  
12 event such as a fire or explosion affects or threatens to affect the public health and  
13 safety 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  
22 469.402 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.

##### 1. Certificate Administration Conditions

24 24 The certificate holder shall:

25 ~~Begin~~ begin construction ~~of Phase 1~~ of the facility by September 14, 2017. Under OAR 345-015-0085(9),  
26 a site certificate is effective upon execution by the Council Chair and the applicant. The Council  
27 may grant an extension of the deadline to begin construction in accordance with OAR 345-027-  
28 0385 or any successor rule in effect at the time the request for extension is submitted. [ASC;  
29 AMD2; ~~AMD4~~AMD5]  
30

31  
32 ~~i. ——— Begin construction of Phase 2 of the facility by August 30, 2022. The Council may grant an~~  
33 ~~extension of the deadline to begin construction in accordance with OAR 345-027-0385 or any~~  
34 ~~successor rule in effect at the time the request for extension is submitted. [AMD4]~~

35 25 The certificate holder shall:

i. ~~Complete complete~~ construction of ~~Phase 1 of~~ the facility by September 14, 2020. 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. ~~[ASC; AMD2; AMD4]~~

~~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]

~~26 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.~~

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.

- i. For ~~Phase 1~~ facility components:
- (a) The total number of turbines must not exceed ~~5681~~ 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]

- 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).~~

[Final Order on ASC; AMD3; ~~AMD4~~AMD5]

28 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.

29 The certificate holder shall:

- (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]

30 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.

31 Before beginning construction but no more than two years before beginning construction and after considering all micro-siting 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 Department. The Department may employ a qualified contractor to confirm the habitat assessment by on-site inspection.

32 ~~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, as adjusted in August 2018 in accordance with (a) and (b) below, is \$7.705 million (3<sup>rd</sup> Quarter 2018 dollars) is either \$21.511 million (3<sup>rd</sup> 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).

- (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 3<sup>rd</sup> 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 3<sup>rd</sup> 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.

(d) The certificate holder shall use an issuer of the bond or letter of credit approved by the Council.

(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.

(f) The bond or letter of credit shall not be subject to revocation or reduction before retirement of the facility site.

~~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<sup>st</sup> 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 Final Order on Amendment 4 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 bond or letter of credit under (a) if opting to construct only a portion of the facility.
- ~~(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:~~
- ~~(i) Adjust the Subtotal component of the bond or letter of credit amount (expressed in mid-2004 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 average of the 2<sup>nd</sup> Quarter and 3<sup>rd</sup> Quarter 2004 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.~~
- ~~(c) 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:~~
- ~~(i) Adjust the Subtotal component of the bond or letter of credit amount (expressed in mid-2004 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 average of the 2<sup>nd</sup> Quarter and 3<sup>rd</sup> Quarter 2004 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, add 20 percent of the adjusted Gross Cost of the Solar Generation and Battery Storage System (ii) and 10 percent of the adjusted Gross Cost of all other facility components (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.~~
- ~~(d) The certificate holder shall use a form of bond or letter of credit approved by the Council.~~
- ~~(e) The certificate holder shall use an issuer of the bond or letter of credit approved by the Council.~~
- ~~(f) 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.~~
- ~~(g) The bond or letter of credit shall not be subject to revocation or reduction before retirement of the facility site.~~
- ~~[AMD4 [AMD5]~~

33 If the certificate holder elects to use a bond to meet the requirements of Condition 32, the certificate holder shall ensure that the surety is obligated to comply with the requirements of

applicable statutes, Council rules and this site certificate when the surety exercises any legal or contractual right it may have to assume construction, operation or retirement of the energy 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.

34 Before beginning construction, the certificate holder shall notify the Department of the identity and qualifications of the major design, engineering and construction contractor(s) for the facility. The certificate holder shall select contractors that have substantial experience in the design, engineering and construction of similar facilities. The certificate holder shall report to the Department any change of major contractors.

35 The certificate holder shall contractually require all construction contractors and subcontractors involved in the construction of the facility to comply with all applicable laws and regulations and with the terms and conditions of the site certificate. Such contractual provisions shall not operate to relieve the certificate holder of responsibility under the site certificate.

36 To ensure compliance with all site certificate conditions during construction, the certificate holder shall have a full-time, on-site assistant construction manager who is qualified in environmental compliance. The certificate holder shall notify the Department of the name, telephone number and e-mail address of this person.

37 Within 72 hours after discovery of conditions or circumstances that may violate the terms or conditions of the site certificate, the certificate holder shall report the conditions or circumstances to the Department.

## **2. Land Use Conditions**

38 The certificate holder ~~shall:~~  
~~Consult~~shall 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.

~~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]~~

39 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; AMD5]



~~i. 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]~~

40 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.

41 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).

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-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 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.~~

~~(l) 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)(k) 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]~~

43 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.

44 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.

45 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 and a summary of as-built changes in the facility compared to the original plan.

46 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.

### **3. Cultural Resource Conditions**

47 Before beginning construction, the certificate holder ~~shall:~~  
~~(a) Label~~ shall 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]

~~(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. The final HRMP shall include the following:~~

- ~~i. 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 selected from the HRMP and the implementation schedule to reduce significant adverse indirect impacts to the Weatherford Barn.~~

1 ii. ~~Concurrence from SHPO that the Olex Townsite, Olex School, and the Olex~~  
2 ~~Cemetery (“Olex resources”) are not likely eligible for listing as individual properties~~  
3 ~~or together as a historic district on the National Register of Historic Places (NRHP);~~  
4 ~~or if SHPO concurs that the Olex resources either individually or as a historic district~~  
5 ~~are likely eligible for listing, the certificate holder shall include in its final HRMP~~  
6 ~~appropriate descriptions of the resources and mitigation, which could include an~~  
7 ~~appropriate setback of Phase 2 facility components to the Olex resources as~~  
8 ~~confirmed by the Department in consultation with SHPO to represent a distance~~  
9 ~~whereby indirect impacts to setting and feeling would be minimized to less than~~  
10 ~~significant. In the alternative, the certificate holder shall specify the mitigation~~  
11 ~~option selected and the implementation schedule to reduce significant adverse~~  
12 ~~indirect impacts to the Olex resources such as: historic photo documentation and~~  
13 ~~scale drawings of Olex; additional archival and literature review; video media~~  
14 ~~publications; public interpretation funding; or other form of compensatory~~  
15 ~~mitigation deemed appropriate by the Department, in consultation with SHPO.~~  
16 ~~[AMD4; AMD5]~~

17  
18 48 In reference to the alignment of the Oregon Trail described in the Final Order on the  
19 Application, the certificate holder shall comply with the following requirements:

20 (d) The certificate holder shall not locate facility components on visible remnants of the  
21 Oregon Trail and shall avoid any construction disturbance to those remnants.

22 (e) The certificate holder shall not locate facility components on undeveloped land where  
23 the trail alignment is marked by existing Oregon-California Trail Association markers.

24 (f) Before beginning construction, the certificate holder shall provide to the State Historic  
25 Preservation Office (SHPO) and the Department documentation of the presumed  
26 Oregon Trail alignments within the site boundary.

27 (g) The certificate holder shall ensure that construction personnel proceed carefully in the  
28 vicinity of the presumed alignments of the Oregon Trail. If any physical evidence of the  
29 trail is discovered, the certificate holder shall avoid any disturbance to the intact  
30 segments by redesign, re-engineering or restricting the area of construction activity and  
31 shall flag a 30-meter no-entry buffer around the intact Trail segments. ~~The certificate~~  
32 ~~holder shall promptly notify the SHPO and the Department of the discovery. The~~  
33 ~~certificate holder shall consult with the SHPO and the Department to determine~~  
34 ~~appropriate mitigation measures.~~

35 49 Before beginning construction, the certificate holder shall provide to the Department a map  
36 showing the final design locations of all components of the facility, the areas that would be  
37 temporarily disturbed during construction and the areas that were surveyed in 2009 as  
38 described in the Final Order on the Application. The certificate holder shall hire qualified  
39 personnel to conduct field investigations of all areas to be disturbed during construction that lie  
40 outside the previously-surveyed areas. The certificate holder shall provide a written report of  
41 the field investigations to the Department and to the Oregon State Historic Preservation Office  
42 (SHPO) for review and approval. If any potentially significant historic, cultural or archaeological  
43 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.

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.
- (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. ~~AMD4~~AMD5

51 The certificate holder shall ensure that construction personnel cease all ground-disturbing activities in the immediate area if any archaeological or cultural resources are found during construction of the facility until a qualified archaeologist can evaluate the significance of the find. The certificate holder shall notify the Department and the Oregon State Historic Preservation Office (SHPO) of the find. If the SHPO determines that the resource is significant, the certificate holder shall make recommendations to the Council for mitigation, including avoidance, field documentation and data recovery, in consultation with the Department, SHPO, interested Tribes and other appropriate parties. ~~The certificate holder shall not restart work in the affected area until the certificate holder has demonstrated to the Department and the SHPO that it has complied with archaeological resource protection regulations~~

#### **4. Geotechnical Conditions**

52 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; ~~AMD4~~AMD5]

53 The certificate holder shall design and construct the facility in accordance with requirements of the current Oregon Structural Specialty Code and International Building Code. ~~AMD4~~AMD5

54 The 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" include settlement, landslides, flooding and erosion.

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

55 The certificate holder shall handle hazardous materials used on the site in a manner that protects public health, safety and the environment and shall comply with all applicable local, state and federal environmental laws and regulations. The certificate holder shall not store diesel fuel or gasoline on the facility site during operations. [AMD4AMD5]

56 If 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 O&M ~~buildings~~building (shared with Leaning Juniper IIA). The certificate holder shall instruct employees about proper handling, storage and cleanup of hazardous materials

57 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.

58 The certificate holder shall install and maintain self-monitoring devices on each turbine, linked to sensors at the operations and maintenance building, to alert operators to potentially dangerous conditions, and the certificate holder shall immediately remedy any dangerous conditions. The certificate holder shall maintain automatic equipment protection features in each turbine that would shut down the turbine and reduce the chance of a mechanical problem causing a fire.

59 During construction and operation of the facility, the certificate holder shall ensure that the O&M ~~buildings~~building and all service vehicles are equipped with shovels and portable fire extinguishers of a 4A50BC or equivalent rating.

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. The certificate holder shall meet annually with local fire protection agency personnel to discuss emergency planning and shall invite local fire protection agency personnel to observe any emergency drill or tower rescue training conducted at the facility.

61 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 facility structures. The certificate holder shall provide an updated site plan if additional turbines or other structures are later added to the facility. During operation, the certificate holder shall ensure 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.

- 1 62 During construction, the certificate holder shall ensure that construction personnel are trained  
2 in fire prevention and response, that construction vehicles and equipment are operated on  
3 graveled areas to the extent possible and that open flames, such as cutting torches, are kept  
4 away from dry grass areas.
- 5 63 During operation of the facility, the certificate holder shall ensure that all on-site employees  
6 receive annual fire prevention and response training by qualified instructors or members of the  
7 local fire districts. The certificate holder shall ensure that all employees are instructed to keep  
8 vehicles on roads and off dry grassland, except when off-road operation is required for  
9 emergency purposes.
- 10 64 Before beginning construction ~~of:~~  
11 ~~Phase 1 of the facility,~~ the certificate holder shall submit a Notice of Proposed Construction or Alteration  
12 to the Federal Aviation Administration (FAA) and the Oregon Department of Aviation identifying  
13 the proposed final locations of turbine towers and meteorological towers. The certificate holder  
14 shall promptly notify the Department of the responses from the FAA and the Oregon  
15 Department of Aviation. [AMD5]
- 16 ~~i.—Phase 2, the certificate holder shall submit a Notice of Proposed Construction or Alteration~~  
17 ~~to the Federal Aviation Administration (FAA) and the Oregon Department of Aviation~~  
18 ~~identifying the proposed final locations of turbine towers and meteorological towers to~~  
19 ~~determine if the structure(s) are a hazard to air navigation and aviation safety. The~~  
20 ~~certificate holder shall promptly notify the Department of the responses from the FAA and~~  
21 ~~the Oregon Department of Aviation. The FAA and ODA evaluation and determinations are~~  
22 ~~valid for 18 months (per OAR 738-070-0180), once issued. The certificate holder shall~~  
23 ~~maintain current hazard determinations on file commensurate with construction timelines.~~  
24 ~~[AMD4]~~
- 25 65 The certificate holder shall follow manufacturers' recommended handling instructions and  
26 procedures to prevent damage to turbine or turbine tower components that could lead to  
27 failure.
- 28 66 The certificate holder shall construct turbine towers with no exterior ladders or access to the  
29 turbine blades and shall install locked tower access doors. The certificate holder shall keep  
30 tower access doors locked at all times, except when authorized personnel are present.
- 31 67 During operation of the facility, the certificate holder shall have a safety-monitoring program  
32 and shall inspect all turbine and turbine tower components on a regular basis. The certificate  
33 holder shall maintain or repair turbine and turbine tower components as necessary to protect  
34 public safety.
- 35 68 For turbine types having pad-mounted step-up transformers, the certificate holder shall install  
36 the transformers at the base of each tower in locked cabinets designed to protect the public  
37 from electrical hazards and to avoid creation of artificial habitat for raptor prey.
- 38 69 To protect the public from electrical hazards, the certificate holder shall enclose the facility  
39 substations, ~~solar array, and battery storage systems~~ with appropriate fencing and locked  
40 gates. [AMD4AMD5]

- 70 Before beginning construction of any new State Highway approaches or utility crossings, the certificate holder shall obtain all required permits from the Oregon Department of Transportation (ODOT) subject to the applicable conditions required by OAR Chapter 734, Divisions 51 and 55. The certificate holder shall submit the necessary application in a form satisfactory to ODOT and the Department for the location, construction and maintenance of a new approach to State Highway 19 for access to the site south of Tree Lane. The certificate holder shall submit the necessary application in a form satisfactory to ODOT and the Department for the location, construction and maintenance of transmission lines crossing Highway 19.
- 71 The certificate holder shall design and construct new access roads and private road improvements to standards approved by the Gilliam County Road Department or, where applicable, the Morrow County Public Works Department. Where modifications of County roads are necessary, the certificate holder shall construct the modifications entirely within the County road rights-of-way and in conformance with County road design standards subject to the approval of the Gilliam County Road Department or, where applicable, the Morrow County Public Works Department. Where modifications of State roads or highways are necessary, the certificate holder shall construct the modifications entirely within the public road rights-of-way and in conformance with Oregon Department of Transportation (ODOT) standards subject to the approval of ODOT.
- 72 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.
- 73 During construction of the facility, the certificate holder shall implement measures to reduce traffic impacts, including:
- (h) Providing notice to adjacent landowners when heavy construction traffic is anticipated.
  - (i) Providing appropriate traffic safety signage and warnings.
  - (j) Requiring flaggers to be at appropriate locations at appropriate times during construction to direct traffic.
  - (k) Using traffic diversion equipment (such as advance signage and pilot cars) when slow or oversize construction loads are anticipated.
  - (l) 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.
  - (m) Encouraging carpooling for the construction workforce.
  - (n) Including traffic control procedures in contract specifications for construction of the facility.
  - (o) Keeping Highway 19 free of gravel that tracks out onto the highway at facility access points.



- 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.
- 75 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]
- 76 During construction, the certificate holder shall require that all on-site construction contractors develop and implement a site health and safety plan that informs workers and others on-site about first aid techniques and what to do in case of an emergency and that includes important telephone numbers and the locations of on-site fire extinguishers and nearby hospitals. The certificate holder shall ensure that construction contractors have personnel on-site who are trained and equipped for tower rescue and who are first aid and CPR certified.
- 77 During operation of the facility, the certificate holder shall develop and implement a site health and safety plan that informs employees and others on-site about first aid techniques and what to do in case of an emergency, including a contingency plan in a fire emergency, and that includes important telephone numbers and the locations of on-site fire extinguishers, nearby 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]
- 78
- (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.
- 79 The certificate holder shall notify the Department of Energy and the Gilliam County Planning Department within 72 hours of any accidents including mechanical failures on the site associated with construction or operation of the facility that may result in public health and safety concerns

6. Water, Soils, Streams & Wetlands Conditions

80

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.

ii.

~~a. Before beginning construction of Phase 2 wind energy generation components, the certificate holder shall submit to the Department and Gilliam County Planning Director for review and approval a topsoil management plan including how topsoil will be 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 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.~~

~~b.~~ a. 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]

81

During construction, the certificate holder shall limit truck traffic to improved road surfaces to avoid soil compaction, to the extent practicable.

82

During 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.

83

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 channels 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.

84

The certificate holder shall avoid impacts to waters of the state in the following manner:

(a) The certificate holder shall avoid any disturbance to delineated wetlands.

(b) The certificate holder shall construct stream crossings for roads and underground collector lines substantially as described in the Final Order on the Application or the



Final Order on Amendment #4. In particular, the certificate holder shall not remove material from waters of the State or add new fill material to waters of the State such that the total volume of removal and fill exceeds 50 cubic yards for the project as a whole.

- (c) The certificate holder shall construct support poles for aboveground lines outside of delineated stream channels and shall avoid in-channel impacts.

[AMD4AMD5]

- 85 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]

- 86 During facility operation, the certificate holder shall obtain water for on-site uses from on-site wells located near the Phase 1 O&M ~~buildings~~ building. The certificate holder shall construct on-site wells 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 ~~well~~ well. The certificate holder may use other sources of water for on-site uses subject to prior approval by the Department.

- 87 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 or metal brighteners with the wash water. The certificate holder may use biodegradable, phosphate-free cleaners sparingly. [AMD4AMD5]

## 7. Transmission Line & EMF Conditions

- 88 The certificate holder shall install the 34.5-kV collector system underground to the extent practical. The certificate holder shall install underground lines at a minimum depth of three feet. Based on geotechnical conditions or other engineering considerations, the certificate holder may install segments of the collector system aboveground, but the total length of aboveground segments must not exceed 27 miles.

- 89 The certificate holder shall take reasonable steps to reduce or manage human exposure to electromagnetic fields, including but not limited to:

(a) Constructing all aboveground transmission lines at least 200 feet from any residence or other occupied structure, measured from the centerline of the transmission line.

(b) 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.

(c) 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.

(d) Designing and maintaining all transmission lines so that induced voltages during operation are as low as reasonably achievable.

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.

## 8. Plants, Wildlife & Habitat Protection Conditions

91 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, 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; ~~AMD4~~AMD5]

92 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 Facility, 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 #4, and as amended from time to time. [Amendment #3; ~~AMD4~~AMD5]

93 The certificate holder shall:

(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; ~~AMD4~~AMD5]

~~(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 impacted acreage calculations shall be completed and submitted to the department after construction is complete as described in the condition below.~~

(c) Within 90 days of completion of construction, the certificate holder shall submit to the department and ODFW an updated HMP Table.  
[~~AMD4~~AMD5]

94 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 have been approved by the Department. Category 1 WGS habitat includes the 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.

(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.

95 The certificate holder shall implement measures to mitigate impacts to sensitive wildlife habitat during construction including, but not limited to, the following:

(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.

(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 reduction in the likelihood of survival or recovery of the species, as approved by the Department, in consultation with ODA and ODFW.

(c) Before beginning construction ~~of a phase~~ of the facility, the certificate holder's qualified professional biologist shall survey the Category 1 Washington ground squirrel habitat to

ensure that the sensitive use area is correctly marked with exclusion flagging and avoided during construction. The certificate holder shall maintain the exclusion markings until construction has been completed.

(d) Before beginning construction ~~of a phase~~ of the facility, certificate holder's qualified professional biologist shall complete the avian use studies that began in September 2009 at six plots within or near the facility site as described in the Final Order on the Application. The certificate holder shall provide a written report on the avian use studies to the Department and to ODFW.

(e) Before beginning construction of a phase of the facility, certificate holder's qualified professional biologist shall complete raptor nest surveys within the raptor nest survey area as described in the Final Order on the Application. The purposes of the survey are to identify any sensitive raptor nests near construction areas and to provide baseline information on raptor nest use for analysis as described in the Wildlife Monitoring and Mitigation Plan referenced in Condition 91. The certificate holder shall provide a written report on the raptor nest surveys and the surveys to the Department and to ODFW. If the surveys identify the presence of raptor nests within the survey area, the certificate holder shall implement appropriate measures to assure that the design, construction and operation of the facility are consistent with the fish and wildlife habitat mitigation goals and standards of OAR 635-415-0025, as approved by the Department, in consultation with ODFW.

(f) In the final design layout of the facility, the certificate holder shall locate facility components, access roads and construction areas to avoid or minimize temporary and permanent impacts to high quality native habitat and to retain habitat cover in the general landscape where practicable.

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

| <u>Species</u>   | <u>Sensitive Period</u> | <u>Early Release Date</u> |
|------------------|-------------------------|---------------------------|
| 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 potentially-active nest sites become active during the sensitive period.

If any nest site is determined to be unoccupied by the early release date (May 31), then unrestricted construction activities may occur within 1,300 feet of the nest site after that date. If

a nest is occupied by any of these species after the beginning of the sensitive period, the certificate holder will flag the boundaries of a 1,300-foot buffer area around the nest site and shall instruct construction personnel to avoid disturbance of the buffer area. During the sensitive period, the certificate holder shall not engage in high-impact construction activities (activities that involve blasting, grading or other major ground disturbance) 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.

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.

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).

97 The certificate holder shall protect the area within 1,300 feet of the BLM Horn Butte Wildlife Area during the long-billed curlew nesting season (March 8 through June 15), as described in this condition. Before beginning construction, the certificate holder shall provide to the 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.

98 The certificate holder shall implement measures to avoid or mitigate impacts to sensitive wildlife habitat during construction including, but not limited to, the following:

(a) Preparing maps to show occlusion areas that are off-limits to construction personnel, such as nesting or denning areas for sensitive wildlife species.

(b) Avoiding unnecessary road construction, temporary disturbance and vehicle use.

(c) Limiting construction work to approved and surveyed areas shown on facility constraints maps.

(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.

99 The certificate holder shall reduce the risk of injuries to avian species by:

(a) Installing turbine towers that are smooth steel structures that lack features that would allow avian perching.

(b) Locating turbine towers to avoid areas of increased risk to avian species, such as cliff edges, narrow ridge saddles and gaps between hilltops.

(c) Installing meteorological towers that are non-guyed structures to eliminate the risk of avian collision with guy-wires.

(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.

100 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.

101 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.

## **9. Visual Effects Conditions**

102 To reduce the visual impact of the facility, the certificate holder shall:

(a) Mount nacelles on smooth, steel structures, painted uniformly in a low-reflectivity, neutral white color.

(b) Paint the substation structures in a low-reflectivity neutral color to blend with the surrounding landscape.

(c) Not allow any advertising to be used on any part of the facility.

(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.

(e) Maintain any signs allowed under this condition in good repair.

103 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]

104 The certificate holder shall not use exterior nighttime lighting except:

(a) The minimum turbine tower lighting required or recommended by the Federal Aviation Administration.

(b) Security lighting at the ~~O&M buildings~~ ~~building and at the substations~~ Montague Wind substation, provided that such lighting is shielded or downward-directed to reduce glare.

(c) Minimum lighting necessary for repairs or emergencies.

(d) Minimum lighting necessary for construction directed to illuminate the work area and shielded or downward-directed to reduce glare.

105 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.

## 10. Noise Control Conditions

106 To reduce construction noise impacts at nearby residences, the certificate holder shall:

(a) Confine the noisiest operation of heavy construction equipment to the daylight hours.

(b) Require contractors to install and maintain exhaust mufflers on all combustion engine-powered equipment; and

(c) Establish a complaint response system at the construction manager's office to address noise complaints.

107 The certificate holder shall provide to the Department:

i. Prior to ~~Phase 1~~ construction:

a. Information that identifies the final design locations of ~~all~~ turbines, to be built at the facility...

~~ii. Prior to Phase 2 construction:~~

b. A noise analysis that includes the following Information:

Final design locations of all ~~Phase 1 and Phase 2~~ noise-generating facility components (all wind turbines; and substation transformers; ~~inverters and transformers associated~~



1 with the photovoltaic solar array; and inverters and cooling systems associated with  
2 battery storage system).

3  
4 The maximum sound power level for the ~~Phase 2~~ Montague Wind substation  
5 transformers; ~~inverters and transformers associated with the photovoltaic solar array;~~  
6 ~~inverters and cooling systems associated with battery storage system;~~ and the  
7 maximum sound power level and octave band data for the ~~Phase 2~~ wind turbines  
8 selected for the facility based on manufacturers' warranties or confirmed by other  
9 means acceptable to the Department.

10  
11 The results of noise analysis of ~~Phase 1 and Phase 2 components~~ the facility to be built  
12 according to the final design performed in a manner consistent with the requirements of  
13 OAR 340-035-0035(1)(b)(B)(iii) (IV) and (VI) demonstrating to the satisfaction of the  
14 Department that the total noise generated by the facility (including the noise from wind  
15 turbines, ~~substation transformers, inverters and transformers associated with the~~  
16 ~~photovoltaic solar array; inverters and cooling systems associated with battery storage~~  
17 ~~system) and substation transformers,)~~ would meet the ambient degradation test and  
18 maximum allowable test at the appropriate measurement point for all potentially-  
19 affected noise sensitive properties. The certificate holder shall verify that all noise  
20 sensitive properties within one mile of the final design locations of noise-generating  
21 components for ~~Phase 1 and Phase 2~~ the facility have been identified and included in the  
22 preconstruction noise analysis based on review of the most recent property owner  
23 information obtained from the Gilliam County Tax Assessor Roll.

24  
25 For each noise-sensitive property where the certificate holder relies on a noise waiver to  
26 demonstrate compliance in accordance with OAR 340-035-0035(1)(b)(B)(iii)(III), a copy  
27 of the a legally effective easement or real covenant pursuant to which the owner of the  
28 property authorizes the certificate holder's operation of the facility to increase ambient  
29 statistical noise levels L10 and L50 by more than 10 dBA at the appropriate  
30 measurement point. The legally-effective easement or real covenant must: include a  
31 legal description of the burdened property (the noise-sensitive property); be recorded in  
32 the real property records of the county; expressly benefit the certificate holder;  
33 expressly run with the land and bind all future owners, lessees or holders of any interest  
34 in the burdened property; and not be subject to revocation without the certificate  
35 holder's written approval.

36 [Final Order on ASC; ~~AMD4~~ AMD5]

37 108 During operation of the facility, the certificate holder shall implement measures to ensure  
38 compliance with the noise control regulation, including:

- 39 a. Providing notice of the noise complaint system and how to file a noise complaint to noise  
40 sensitive receptors within 1-mile of ~~noise generating~~ noise generating components.
- 41 b. Maintain a complaint response system to address noise complaints. The certificate holder  
42 shall promptly notify the Department of any complaints received regarding facility noise  
43 and of any actions taken by the certificate holder to address those complaints. In response  
44 to a complaint from the owner of a noise sensitive property regarding noise levels during  
45 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]

## 11. Waste Management Conditions

109 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.

110 During operation of the facility, the certificate holder shall discharge sanitary wastewater generated at the O&M buildings to a licensed on-site septic ~~system~~system in compliance with State permit requirements. The certificate holder shall design the septic ~~system~~system for a discharge capacity of less than 2,500 gallons per day.

111 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.
- (d) Collecting non-recyclable waste for transport to a local landfill by a licensed waste hauler.
- (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]
- (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.

112 The certificate holder shall implement a waste management plan during facility operation that includes but is not limited to the following measures:

- (a) Training employees to minimize and recycle solid waste.
- (b) Recycling paper products, metals, glass and plastics.
- (c) Recycling used oil and hydraulic fluid.
- (d) Collecting non-recyclable waste for transport to a local landfill by a licensed waste hauler.
- (e) Segregating all hazardous, non-recyclable 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. [~~AMD4~~AMD5]

**VI. CONDITIONS ADDED BY AMENDMENT # 1 ~~OF MONTAGUE~~**

113 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.]

114 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.]

115 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.]

**VII. CONDITIONS ADDED BY AMENDMENT #4 ~~OF MONTAGUE~~**

~~116: 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.~~

~~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.~~

~~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.~~

~~[AMD4]~~

~~117 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]~~

~~[Removed by Amendment #5.]~~

**~~VII.~~ CONDITIONS ADDED BY AMENDMENT #5**

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

1 temporary staging areas under the site certificates issued for the Montague Wind  
2 Facility, Montague Solar Facility and Oregon Trail Solar Facility.  
3 a. Within 30 days of shared use, the certificate holder must provide evidence to the  
4 Department that the certificate holders have an executed agreement for shared use  
5 of facilities.  
6 b. If certificate holders of Montague Wind, Montague Solar or Oregon Trail Solar  
7 Facility propose to substantially modify any of the shared facilities listed in sub(a) of  
8 this condition, each certificate holder shall submit an amendment determination  
9 request or request for site certificate amendment to obtain a determination from  
10 the Department on whether a site certificate amendment is required or to process  
11 an amendment for both site certificates.  
12 c. Prior to facility decommissioning or if facility operations cease, each certificate  
13 holder shall submit an amendment determination request or request for site  
14 certificate amendment to document continued ownership and full responsibility,  
15 including coverage of full decommissioning amount of the shared facilities in the  
16 bond or letter of credit pursuant to Condition 32, for the operational facility, if  
17 facilities are decommissioned at different times.  
18

19  
20 **I. SUCCESSORS AND ASSIGNS**

21 To transfer this site certificate or any portion thereof or to assign or dispose of it in any other manner,  
22 directly or indirectly, the certificate holder shall comply with OAR 345-027-~~0100~~0400.

23 **II. SEVERABILITY AND CONSTRUCTION**

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

28 **III. GOVERNING LAW AND FORUM**

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

31 **IV. EXECUTION**

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

34  
35 IN WITNESS WHEREOF, this site certificate has been executed by the State of Oregon, acting by and  
36 through its Energy Facility Siting Council, and by Montague Wind Power Facility, LLC.  
37  
38

**ENERGY FACILITY SITTING COUNCIL**

By: \_\_\_\_\_

Print: \_\_\_\_\_

Date: \_\_\_\_\_

**MONTAGUE WIND POWER FACILITY, LLC**

By: \_\_\_\_\_

Print: \_\_\_\_\_

Date: \_\_\_\_\_

and

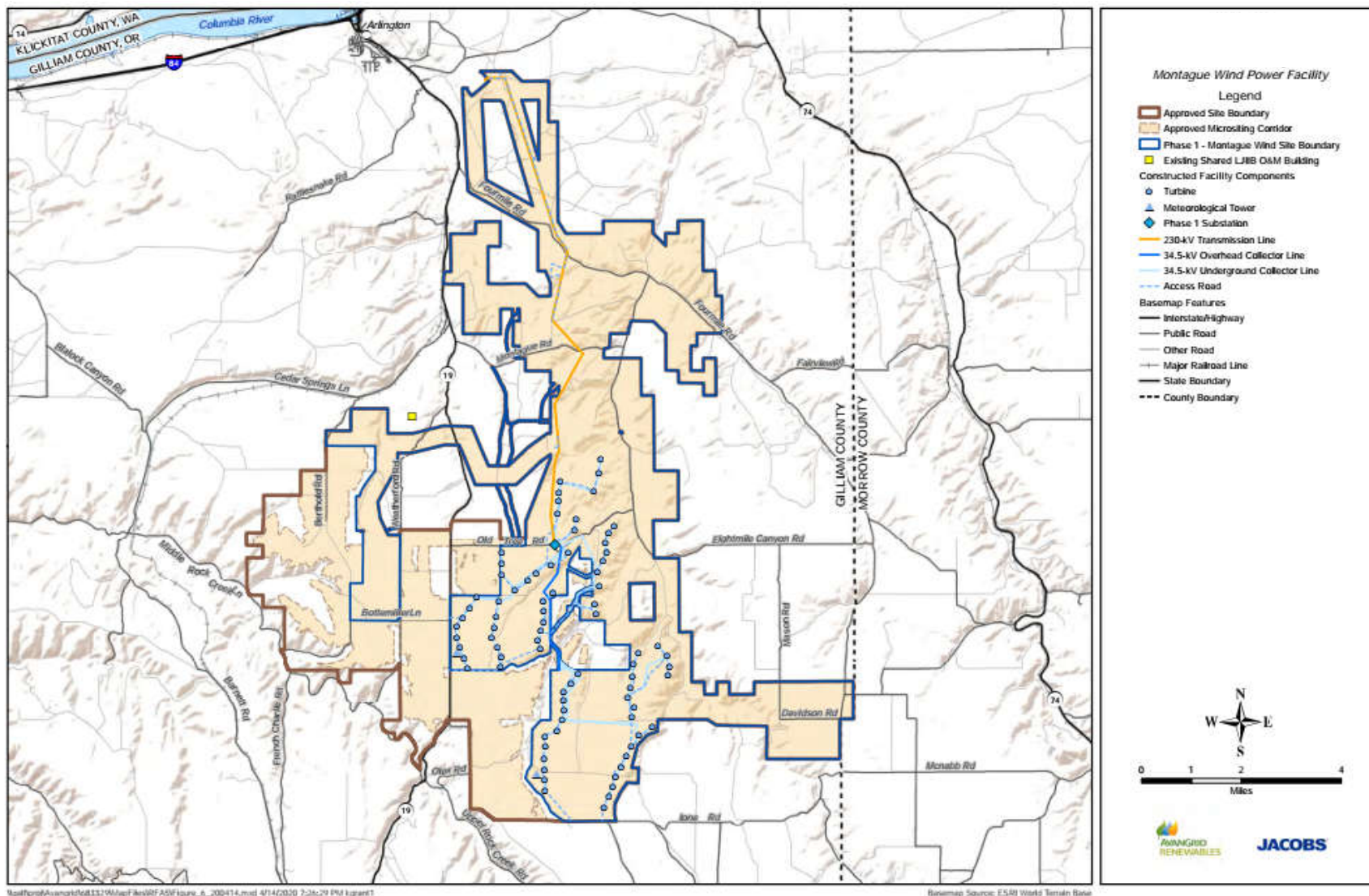
By: \_\_\_\_\_

Print: \_\_\_\_\_

Date: \_\_\_\_\_

1  
2  
3  
4

**Figure 1: Site Boundary and 230 kV transmission line corridor**



ENERGY FACILITY SITING COUNCIL

OF THE

STATE OF OREGON

~~Fourth Amended~~ Site Certificate

for the

Montague ~~Wind Power~~Solar Facility

August 23, 2019

2020

## I. INTRODUCTION

The Oregon Energy Facility Siting Council (Council) issues this site certificate for the Montague ~~Wind PowerSolar~~ 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 FacilitySolar~~, LLC (certificate holder), a wholly owned subsidiary of Avangrid Renewables, LLC (parent company) authorizing the certificate holder to construct and operate the facility in Gilliam County, Oregon. ~~Amendment #3-5]~~

The findings of fact, reasoning and conclusions of law underlying the terms and conditions of this site certificate are set forth in the following documents, incorporated herein by this reference: ~~-(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 issued on June 21, 2013; and, (c) the Final Order on Amendment #2 issued on December 4, 2015; (d) the Final Order on Amendment #3 issued on July 11, 2017; and (e) the Final Order on Amendment #4 issued on August 23, 2019; and (f) the Final Order on Amendment #5 issued on \_\_\_\_\_, 2020.~~ In interpreting this site certificate, any ambiguity will be clarified by reference to the following, in order of priority: ~~-(1) this FourthFifth Amended Site Certificate, (2) the Final Order on Amendment #45, (3) the Final Order on Amendment #34, (4) the Final Order on Amendment #23, (5) the Final Order on Amendment #1 #2, (6) the Final Order on Amendment #1, (7) the Final Order on the Application, and (78) the record of the proceedings that led to the Final Order on the Application, the Final Order on Amendment #1, and the Final Order on Amendment #2. [Amendment #2]~~

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

## II. SITE CERTIFICATION

(a) To the extent authorized by state law and subject to the conditions set forth herein, the State authorizes the certificate holder to construct, operate and retire a ~~wind and~~ photovoltaic (PV) solar energy facility, together with certain related or supporting facilities, at the site in Gilliam County, Oregon, as described in Section III of this site certificate. ORS 469.401(1). ~~[ASC; AMD4AMD5]~~

(a) 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).

(a) This site certificate does not address, and is not binding with respect to, matters that were not addressed in the Final Order on the Application, Final Order on Amendment #1 Final Order on Amendment #2, Final Order on Amendment #3, Final Order on Amendment #4, and Final Order on Amendment #45. Such matters include, but are not limited to: building code compliance, wage, hour and other labor regulations, local government fees and charges and other design or operational issues that do not relate to siting the facility (ORS 469.401(4)) and permits issued under statutes and rules for which the decision on compliance has been delegated by the federal government to a



state agency other than the Council. 469.503(3). [ASC; AMD1; AMD2; AMD3; AMD4;  
AMD5]

(a) 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).

(a) 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).

(a) Subject to the conditions herein, this site certificate binds the State and all counties, cities and political subdivisions in Oregon as to the approval of the site and the construction, operation and retirement of the facility as to matters that are addressed in and governed by this site certificate. ORS 469.401(3).

(a) Each affected state agency, county, city and political subdivision in Oregon with authority to issue a permit, license or other approval addressed in or governed by this site certificate shall, upon submission of the proper application and payment of the proper fees, but without hearings or other proceedings, issue such permit, license or other approval subject only to conditions set forth in this site certificate. ORS 469.401(3).

(a) After issuance of this site certificate, each state agency or local government agency that issues a permit, license or other approval for the facility shall continue to exercise enforcement authority over such permit, license or other approval. ORS 469.401(3).

(a) After issuance of this site certificate, the Council shall have continuing authority over the site and may inspect, or direct the Oregon Department of Energy (Department) to inspect, or request another state agency or local government to inspect, the site at any time in order to ensure that the facility is being operated consistently with the terms and conditions of this site certificate. ORS 469.430.

(a) Following the completion of surveys required by this site certificate, the Department will present the results of those surveys and required consultations at the next regularly scheduled Council meeting. [AMD2]

### III. DESCRIPTION

#### 1. The Facility

##### (a) The Energy Facility

The Montague ~~Wind Power~~Solar Facility is an electric power generating plant ~~developed in two phases, Phase 1 and Phase 2. Phase 1 consists of 56 wind turbines, each~~ consisting of a nacelle, a three-bladed



rotor, turbine tower and foundations. The nacelle houses the equipment such as the gearbox, generator, brakes, and control systems for the turbines.

~~Phase 2 is approved to consist of a combination of up to 81 wind turbines and a~~ solar photovoltaic array on up to 1,189~~496~~ acres ~~of an approved solar micrositing area~~. The solar array would be composed of solar modules, which are themselves composed of either mono-crystalline or poly-crystalline cells. In addition to the solar modules, the array would also include a tracker system to allow the solar modules to follow the path of the sun throughout the day; cables; inverters; and transformers. Within the solar micrositing area, solar photovoltaic energy generation equipment could include modules consisting of solar panels, trackers, racks, posts, inverter/transformer units and above- and belowground cabling. Solar panels would be supported by galvanized steel posts, which would be hydraulically driven into the ground at a depth of 5 to 8 feet, with an approximately 4 to 5.5-foot aboveground height. Solar panels would be designed with anti-reflective coating. Modules would be placed on non-specular metal galvanized steel racks, with heights ranging from 4 to 15 feet at full tilt. To convert energy generated within the modules from alternating current (ac) to direct current (dc), inverter/transformer units would be installed. Solar photovoltaic energy generation equipment would be contained by an approximately 8-foot chain-link fence extending around the perimeter. Access to solar facility components would be provided via two new access points on the north side of Bottemiller Lane. ~~The solar array would be connected to the power collection 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, Amendment #4~~ and the Final Order on Amendment #45.

#### (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, Amendment #4~~ and the Final Order on Amendment #45:

- Power collection system
- Control system
- Substations and 230-kV transmission lines
- Battery storage system
- ~~Meteorological towers~~
- Operations and maintenance ~~facilities~~(O&M) building
- Access roads
- Public roadway modifications
- Temporary construction areas

#### Power Collection System

A power collection system operating at 34.5 kilovolts (kV) transports power from ~~each turbine~~the solar array to ~~the~~ collector substation. To the extent practicable, the collection system is installed

underground at a depth of at least three ~~feet~~feet. Not more than 27 miles of the collector system ~~combined across facility s~~ is installed aboveground.

### **Control System**

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

### **Substations and 230-kV Transmission Lines**

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

### **Battery Storage**

~~Phase 2~~The facility is approved to include a battery storage system, ~~shared with the Oregon Trail Solar facility~~. The battery storage system would be capable of storing up to 100 MW of ~~wind or~~ solar energy generated by the Facility, and would be used to stabilize the ~~wind or~~ solar resource through dispatching of energy stored in the battery system. The battery system is placed in a series of containers or building located near the ~~Phase 2 Montague Solar collector~~ 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 are composed of a variety of different technologies; however, all flow batteries dispatch electricity by allowing the migration of electrons from a positive ion tank to a negative ion tank. The electrons migrate between solutions via a membrane.

The battery storage would occupy up to 6 acres and would include batteries and racks or containers, inverters, isolation transformers, and switchboards, an approximately 20-foot warehouse-type building, medium-voltage and low-voltage electrical systems, fire suppression, heating, ventilation, and air-conditioning systems, building auxiliary electrical systems, and network/SCADA systems. Battery storage would include a cooling system (more advanced systems required for Li-ion), which may include a separate chiller plant located outside the battery racks with chillers, pumps, and heat exchangers. High-voltage (HV) 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.

1 **Meteorological Towers**

2 ~~The facility includes up to eight permanent meteorological towers.~~

3 **Operations and Maintenance Facilities Building**

4 The facility includes ~~two operations and maintenance (O&M) facilities, one associated O&M building~~  
5 ~~("Montague Solar O&M building") shared with Phase 1 and the second with Phase 2. Oregon Trail Solar~~  
6 ~~facility . An on-site well at each Montague Solar O&M facility building supplies water for use during~~  
7 facility operation. Sewage is discharged to an on-site septic system.

8 **Access Roads**

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

11 **Public Roadway Modifications**

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

16 **Temporary Construction Areas**

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

20 **(c) Shared Related or Supporting Facilities**

21 ~~The site certificates for the Montague Solar Facility, Oregon Trail Solar Facility and Montague Wind~~  
22 ~~Power Facility were originally approved as one site certificate for the Montague Wind Power Facility~~  
23 ~~(September 2010 – September 2019). In XX 2020, facility components were split or allocated into three~~  
24 ~~separate site certificates, but identified that certain related or supporting facilities would be shared or~~  
25 ~~used by each facility. Sharing of facility components, or use by multiple facilities, is allowable in the EFSC~~  
26 ~~process when the compliance obligation and applicable regulatory requirements for the shared facilities~~  
27 ~~is adequately covered under each site certificate, including under normal operational circumstances,~~  
28 ~~ceasing/termination of operation, emergencies and compliance issues or violations.~~

29  
30 ~~The certificate holder is authorized to share related or supporting facilities between the Montague Solar~~  
31 ~~Facility, Oregon Trail Solar Facility and Montague Wind Power Facility including the Montague Wind~~  
32 ~~collector substation, 230 kV transmission line, temporary laydown areas, and access roads. The~~  
33 ~~certificate holder is authorized to share related or supporting facilities between the Montague Solar~~  
34 ~~Facility and Oregon Trail Solar Facility including the Montague Solar collector substation, 230 kV~~  
35 ~~transmission line, O&M building and battery storage. These related or supporting facilities are included~~  
36 ~~in each site certificate. Compliance responsibility with site certificate conditions and EFSC standards~~  
37 ~~which apply to these shared related or supporting facilities are shared between site certificates and~~  
38 ~~certificate holders. In accordance with Condition 118, if any certificate holder substantially modifies a~~

shared related or supporting facility or ceases facility operation, each certificate holder would be obligated to submit an amendment determination request or request for amendment to the Department to determine the appropriate process for evaluating the change and ensuring full regulatory coverage under each site certificate, or remaining site certificate if either is terminated, in the future. Additionally, each certificate holder is obligated to demonstrate to 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.

## **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**

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 should be read together with the specific facility conditions listed in Section V to ensure compliance with the siting standards of OAR Chapter 345, Divisions 22 and 24, and to protect the public health and safety. In these conditions the definitions in OAR 345-001-0010 apply.

The obligation of the certificate holder to report information to the Oregon Department of Energy (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 and the Council will not publicly disclose information that may be exempt from public disclosure if the certificate holder has clearly labeled such information and stated the basis for the exemption at the time of submitting the information to the Department or the Council. If the Council or the Department receives a request for the disclosure of the information, the Council or the Department, as appropriate, will make a reasonable attempt to notify the certificate holder and will refer the matter to the Attorney General for a determination of whether the exemption is applicable, pursuant to ORS 192.450.

In addition to these conditions, the site certificate holder is subject to all conditions and requirements contained in the rules of the Council and in local ordinances and state law in effect on the date the certificate is executed. Under ORS 469.401(2), upon a clear showing of a significant threat to the 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.

The Council recognizes that many specific tasks related to the design, construction, operation and retirement of the facility will be undertaken by the certificate holder's agents or contractors. Nevertheless, the certificate holder is responsible for ensuring compliance with all provisions of the site certificate.

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

2 OAR 345-025-0006(2): The certificate holder shall submit a legal description of the site to the Department of Energy within 90 days after beginning operation of the facility. The legal description required by this rule means a description of metes and bounds or a description of

the site by reference to a map and geographic data that clearly and specifically identifies the outer boundaries that contain all parts of the facility.

3 OAR 345-025-0006(3): The certificate holder shall design, construct, operate and retire the facility:

(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.

4 OAR 345-025-0006(4): The certificate holder shall begin and complete construction of the facility by the dates specified in the site certificate. (See Conditions 24 and 25.)

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

(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 during the certificate holder's negotiations to acquire construction rights on another part of the site; or

(b) The certificate holder would construct and operate part of a wind energy facility on that part of the site even if other parts of the facility were modified by amendment of the site certificate or were not built.

6 OAR 345-025-0006(6): -If the certificate holder becomes aware of a significant environmental change or impact attributable to the facility, the certificate holder shall, as soon as possible, submit a written report to the Department describing the impact on the facility and any affected site certificate conditions. [~~AMD4~~AMD5]

7 OAR 345-025-0006(7): The certificate holder shall prevent the development of any conditions on the site that would preclude restoration of the site to a useful, non-hazardous condition to the extent that prevention of such site conditions is within the control of the certificate holder.

8 OAR 345-025-0006(8): Before beginning construction of the facility ~~or a phase of the facility~~, the certificate holder shall submit to the State of Oregon, through the Council, a bond or letter of credit, in a form and amount satisfactory to the Council to restore the site or a portion of the site to a useful, non-hazardous condition. The certificate holder shall maintain a bond or letter of credit in effect at all times until the facility ~~or the phase of the facility~~ has been retired. The

Council may specify different amounts for the bond or letter of credit during construction and during operation of the facility ~~or a phase of the facility~~. (See Condition 32.) [AMD4AMD5]

OAR 345-025-0006(9): The certificate holder shall retire the facility if the certificate holder permanently ceases construction or operation of the facility. The certificate holder shall retire the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110. The certificate holder shall pay the actual cost to restore the site to a useful, non-hazardous condition at the time of retirement, notwithstanding the Council's approval in the site certificate of an estimated amount required to restore the site.

OAR 345-025-0006(10): The Council shall include as conditions in the site certificate all representations in the site certificate application and supporting record the Council deems to be binding commitments made by the applicant.

OAR 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.

OAR 345-025-0006(12): The certificate holder shall design, engineer and construct the facility to avoid dangers to human safety and the environment presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events. As used in this rule "seismic hazard" includes ground shaking, ground failure, landslide, liquefaction triggering and consequences (including flow failure, settlement buoyancy, and lateral spreading, cyclic 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]

OAR 345-025-0006(13): The certificate holder shall notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if site investigations or trenching reveal that conditions in the foundation rocks differ significantly from those described in the application for a site certificate. After the Department receives the notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division to propose and implement corrective or mitigation actions.

OAR 345-025-0006(14): The certificate holder shall notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if shear zones, artesian aquifers, deformations or clastic dikes are found at or in the vicinity of the site. After the Department receives notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division to propose and implement corrective or mitigation actions. [AMD4AMD5]

OAR 345-025-0006(15): Before any transfer of ownership of the facility or ownership of the site certificate holder, the certificate holder shall inform the Department of the proposed new owners. The requirements of OAR 345-027-0100 apply to any transfer of ownership that requires a transfer of the site certificate.



16 OAR 345-025-0006(16): If the Council finds that the certificate holder has permanently ceased construction or operation of the facility without retiring the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110, the Council shall notify the certificate holder and request that the certificate holder submit a proposed final retirement plan to the Department within a reasonable time not to exceed 90 days. If the certificate holder does not submit a proposed final retirement plan by the specified date, the Council may direct the Department to prepare a proposed final retirement plan for the Council's approval. Upon the Council's approval of the final retirement plan, the Council may draw on the bond or letter of credit described in OAR 345-027-0020(8) to restore the site to a useful, non-hazardous condition according to the final retirement plan, in addition to any penalties the Council may impose under OAR Chapter 345, Division 29. If the amount of the bond or letter of credit is insufficient to pay the actual cost of retirement, the certificate holder shall pay any additional cost necessary to restore the site to a useful, non-hazardous condition. After completion of site restoration, the Council shall issue an order to terminate the site certificate if the Council finds that the facility has been retired according to the approved final retirement plan.

17 ~~OAR 35-027-0023(4)~~:

~~(a) The certificate holder shall design, construct and operate the transmission line in accordance with the requirements of the National Electrical Safety Code approved on June 3, 2011, by the 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 3, Removed by Amendment 4]~~

18 OAR 345-025-0010(5): The certificate holder is authorized to construct a 230-kV transmission line anywhere within the approved corridor, subject to the conditions of the site certificate. The approved corridor is ½-mile in width and 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 Figure 1 of the site certificate.  
[OAR 345-025-0010(5); ASC; ~~AMD4~~ AMD5]

19 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]

20 OAR 345-026-0048: Following receipt of the site certificate or an amended site certificate, the certificate holder shall implement a plan that verifies compliance with all site certificate terms and conditions and applicable statutes and rules. As a part of the compliance plan, to verify compliance with the requirement to begin construction by the date specified in the site

certificate, the certificate holder shall report promptly to the Department of Energy when construction begins. Construction is defined in OAR 345-001-0010. In reporting the beginning of construction, the certificate holder shall describe all work on the site performed before beginning construction, including work performed before the Council issued the site certificate, and shall state the cost of that work. For the purpose of this exhibit, "work on the site" means any work within a site or corridor, other than surveying, exploration or other activities to define 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.

21 OAR 345-026-0080: The certificate holder shall report according to the following requirements:

(a) General reporting obligation for energy facilities under construction or operating:

(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.

(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.

(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

(b) In the annual report, the certificate holder shall include the following information for the calendar year preceding the date of the report:

(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.

(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.

(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.

(iv) 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.

(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.

(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.

~~(vii)....~~

22 OAR 345-026-0105: The certificate holder and the Department of Energy shall exchange copies of all correspondence or summaries of correspondence related to compliance with statutes, rules and local ordinances on which the Council determined compliance, except for material withheld from public disclosure under state or federal law or under Council rules. The certificate holder may submit abstracts of reports in place of full reports; however, the certificate holder shall provide full copies of abstracted reports and any summarized correspondence at the request of the Department.

23 OAR 345-026-0170: The certificate holder shall notify the Department of Energy within 72 hours of any occurrence involving the facility if:

(a) There is an attempt by anyone to interfere with its safe operation;

(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

(c) There is any fatal injury at the facility.

## V. SPECIFIC FACILITY CONDITIONS

The conditions listed in this section include conditions based on representations in the site certificate application and supporting record. The Council deems these representations to be binding commitments made by the applicant. These conditions are required under OAR 345-025-0006. The certificate holder must comply with these conditions in addition to the conditions listed in

Section IV. This section includes other specific facility conditions the Council finds necessary to ensure 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 Council's discretion, the delegation is warranted under the circumstances of the case.

#### 1. Certificate Administration Conditions

24 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]

25 The certificate holder shall:

~~Complete complete~~ construction of ~~Phase 1 of~~ the facility by ~~September 14, 2020~~ [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. ~~[ASC; AMD2; AMD4]~~ [AMD5]

- ~~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]~~

~~26 ——— 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.~~

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. solar array components substantially as described in RFA4 and RFA5.~~

~~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]~~

~~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).~~

[Final Order on ASC; AMD3; ~~AMD4~~AMD4AMD5]

28 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.

29 The certificate holder shall:

- 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.
- ii. 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. [~~AMD4~~AMD5]

30 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.

31 Before beginning construction but no more than two years before beginning construction and after considering all micro-siting 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

1 permanent habitat impact by habitat category and subtype, similar to Table 6 in the Final Order  
2 on the Application. The detailed maps of the facility site shall indicate the habitat categories of  
3 all areas that would be affected during construction (similar to ~~Figures~~Figure P-8a through P-8d  
4 ~~in the site certificate application RFA4~~). In classifying the affected habitat into habitat categories,  
5 the certificate holder shall consult with the ODFW. The certificate holder shall not begin ground  
6 disturbance in an affected area until the habitat assessment has been approved by the  
7 Department. The Department may employ a qualified contractor to confirm the habitat  
8 assessment by on-site inspection.

- 9 i. 32 ~~i.~~ Before beginning construction of ~~Phase 1 of~~ the facility, the certificate holder shall  
10 submit to the State of Oregon through the Council a bond or letter of credit in the amount  
11 described herein naming the State of Oregon, acting by and through the Council, as beneficiary  
12 or payee. The ~~initial~~ bond or letter of credit will be issued in an amount that is either  
13 \$~~21.5118.1~~ million (~~3<sup>rd</sup>~~1<sup>st</sup> Quarter ~~2010~~2019 dollars), to be adjusted to the date of issuance as  
14 described in (b), or the amount determined as described in (a). The certificate holder shall  
15 adjust the amount of the bond or letter of credit on an annual basis thereafter as described in  
16 (b).

17 a. The certificate holder may adjust the amount of the bond or letter of credit based  
18 on the final design configuration of the facility ~~and turbine types selected by~~  
19 applying the unit costs and general costs illustrated in Table 52 in the *Final Order on*  
20 *the Application Amendment 4* and calculating the financial assurance amount as  
21 described in that order, adjusted to the date of issuance as described in (b) and  
22 subject to approval by the Department.

23 ~~i. Adjust the Subtotal component of the bond or letter of credit amount~~  
24 ~~(expressed in 3<sup>rd</sup> Quarter 2017 dollars) to present value, using the U.S. Gross~~  
25 ~~Domestic Product Implicit Price Deflator, Chain-Weight, as published in the~~  
26 ~~Oregon Department of Administrative Services' "Oregon Economic and~~  
27 ~~Revenue Forecast" or by any successor agency (the "Index") and using the~~  
28 ~~3<sup>rd</sup> Quarter 2017 index values (to represent mid-2004 dollars) and the~~  
29 ~~quarterly index value for the date of issuance of the new bond or letter of~~  
30 ~~credit. If at any time the Index is no longer published, the Council shall~~  
31 ~~select a comparable calculation to adjust mid-2004 dollars to present value.~~

32 ~~ii. Add 1 percent of the adjusted Subtotal (i) for the adjusted performance~~  
33 ~~bond amount to determine the adjusted Gross Cost.~~

34 ~~iii. Add 10 percent of the adjusted Gross Cost (ii) for the adjusted~~  
35 ~~administration and project management costs and 10 percent of the~~  
36 ~~adjusted Gross Cost (ii) for the adjusted future developments contingency.~~

37 ~~iv. Add the adjusted Gross Cost (ii) to the sum of the percentages (iii) and~~  
38 ~~round the resulting total to the nearest \$1,000 to determine the adjusted~~  
39 ~~financial assurance amount.~~

40 b. The certificate holder shall adjust the amount of the bond or letter of credit, using  
41 the following calculation and subject to approval by the Department:

42 c. The certificate holder shall use a form of bond or letter of credit approved by the  
43 Council.

- 1                   d. ~~The certificate holder shall use an issuer of the bond or letter of credit approved by~~  
2                   ~~the Council.~~
- 3                   e. ~~The certificate holder shall describe the status of the bond or letter of credit in the~~  
4                   ~~annual report submitted to the Council under Condition 21.~~
- 5                   f. ~~The bond or letter of credit shall not be subject to revocation or reduction before~~  
6                   ~~retirement of the facility site.~~
- 7                   ii. ~~Before beginning construction of Phase 2 of the facility, the certificate holder shall submit to~~  
8                   ~~the State of Oregon through the Council a bond or letter of credit in the amount described~~  
9                   ~~herein naming the State of Oregon, acting by and through the Council, as beneficiary or payee.~~  
10                  ~~The bond or letter of credit will be issued for Phase 2 in an amount that is either \$10.429~~  
11                  ~~million (1<sup>st</sup> Quarter 2019 dollars), to be adjusted to the date of issuance as described in (b), or~~  
12                  ~~the amount determined as described in (a). The certificate holder shall adjust the amount of~~  
13                  ~~the bond or letter of credit on an annual basis thereafter as described in (b).~~
- 14                  a. ~~The certificate holder may adjust the amount of the bond or letter of credit based~~  
15                  ~~on the final design configuration of the facility, and both the battery storage or~~  
16                  ~~turbine types selected by applying the unit costs and general costs illustrated in~~  
17                  ~~Table 5 of the Final Order on Amendment 4 and calculating the financial assurance~~  
18                  ~~amount as described in that order, adjusted to the date of issuance as described in~~  
19                  ~~(b) and subject to approval by the Department.~~ The certificate holder may adjust the  
20                  amount of the bond or letter of credit under (a) if opting to construct only a portion  
21                  of the facility.
- 22                  b. The certificate holder shall adjust the amount of the bond or letter of credit, using  
23                  the following calculation and subject to approval by the Department:
- 24                          i. Adjust the Subtotal component of the bond or letter of credit amount  
25                          (expressed in mid-~~2004-2019~~ dollars) to present value, using the U.S. Gross  
26                          Domestic Product Implicit Price Deflator, Chain-Weight, as published in the  
27                          Oregon Department of Administrative Services' "Oregon Economic and  
28                          Revenue Forecast" or by any successor agency (the "Index") and using the  
29                          average of the 1<sup>st</sup> and 2<sup>nd</sup> Quarter ~~and 3<sup>rd</sup> Quarter 2004-2019~~ index values  
30                          (to represent mid-~~2019-2004~~ dollars) ~~and the quarterly index value for the~~  
31                          date of issuance of the new bond or letter of credit. If at any time the Index  
32                          is no longer published, the Council shall select a comparable calculation to  
33                          adjust mid-~~2004-2019~~ dollars to present value.
- 34                  c. The certificate holder shall adjust the amount of the bond or letter of credit, using  
35                  the following calculation and subject to approval by the Department:
- 36                          i. Adjust the Subtotal component of the bond or letter of credit amount  
37                          (expressed in mid-~~2019-2004~~ dollars) to present value, using the U.S. Gross  
38                          Domestic Product Implicit Price Deflator, Chain-Weight, as published in the  
39                          Oregon Department of Administrative Services' "Oregon Economic and  
40                          Revenue Forecast" or by any successor agency (the "Index") and using the  
41                          average of the 1<sup>st</sup> and 2<sup>nd</sup> Quarter ~~and 3<sup>rd</sup> Quarter 2004~~index201904 index  
42                          values (to represent mid-201904 dollars) and the quarterly index value for  
43                          the date of issuance of the new bond or letter of credit. If at any time the  
44                          Index is no longer published, the Council shall select a comparable  
45                          calculation to adjust mid-201904 dollars to present value.

- 1 ii. Add 1 percent of the adjusted Subtotal (i) for the adjusted performance  
2 bond amount to determine the adjusted Gross Cost.  
3 iii. Add 10 percent of the adjusted Gross Cost (ii) for the adjusted  
4 administration and project management costs, add 20 percent of the  
5 adjusted Gross Cost of the Solar Generation and Battery Storage System (ii)  
6 and 10 percent of the adjusted Gross Cost of all other facility components(ii)  
7 for the adjusted future developments contingency.  
8 iv. Add the adjusted Gross Cost (ii) to the sum of the percentages (iii) and  
9 round the resulting total to the nearest \$1,000 to determine the adjusted  
10 financial assurance amount.  
11 d. The certificate holder shall use a form of bond or letter of credit approved by the  
12 Council.  
13 e. The certificate holder shall use an issuer of the bond or letter of credit approved by  
14 the Council.  
15 f. The certificate holder shall describe the status of the bond or letter of credit in the  
16 annual report submitted to the Council under Condition 21.  
17 g. The bond or letter of credit shall not be subject to revocation or reduction before  
18 retirement of the facility site.

19 [~~AMD4~~AMD5]  
20

21 33 If the certificate holder elects to use a bond to meet the requirements of Condition 32, the  
22 certificate holder shall ensure that the surety is obligated to comply with the requirements of  
23 applicable statutes, Council rules and this site certificate when the surety exercises any legal or  
24 contractual right it may have to assume construction, operation or retirement of the energy  
25 facility. The certificate holder shall also ensure that the surety is obligated to notify the Council  
26 that it is exercising such rights and to obtain any Council approvals required by applicable  
27 statutes, Council rules and this site certificate before the surety commences any activity to  
28 complete construction, operate or retire the energy facility.

29 34 Before beginning construction, the certificate holder shall notify the Department of the identity  
30 and qualifications of the major design, engineering and construction contractor(s) for the  
31 facility. The certificate holder shall select contractors that have substantial experience in the  
32 design, engineering and construction of similar facilities. The certificate holder shall report to  
33 the Department any change of major contractors.

34 35 The certificate holder shall contractually require all construction contractors and subcontractors  
35 involved in the construction of the facility to comply with all applicable laws and regulations and  
36 with the terms and conditions of the site certificate. Such contractual provisions shall not  
37 operate to relieve the certificate holder of responsibility under the site certificate.

38 36 To ensure compliance with all site certificate conditions during construction, the certificate  
39 holder shall have a full-time, on-site assistant construction manager who is qualified in  
40 environmental compliance. The certificate holder shall notify the Department of the name,  
41 telephone number and e-mail address of this person.

42 37 Within 72 hours after discovery of conditions or circumstances that may violate the terms or  
43 conditions of the site certificate, the certificate holder shall report the conditions or  
44 circumstances to the Department.



## 2. Land Use Conditions

38 The certificate holder shall:

~~i. Consult~~ 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.~~

~~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]

[Final Order on ASC; AMD4]

39 The certificate holder shall design and construct:

~~i. 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]~~

~~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; AMD5]

~~[Final Order on ASC; AMD4]~~

40 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.

41 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).

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-of-way or railroad right-of-way, the nearest boundary of the certificate holder's lease area or the nearest electrical substation.~~

~~(g)(b)~~ The certificate holder shall maintain a minimum distance of 50 feet measured from ~~any facility~~the 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)(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.

~~(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)(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]

43 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.

44 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.

45 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~~the facility and a summary of as-built changes in the facility compared to the original plan.



46 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.

### 3. Cultural Resource Conditions

47 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]

(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 45. The final HRMP shall include the following:

i. 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 selected from the HRMP and the implementation schedule to reduce significant adverse indirect impacts to the Weatherford Barn.

~~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}

ii. [AMD5]

48 In reference to the alignment of the Oregon Trail described in the Final Order on the Application, the certificate holder shall comply with the following requirements:

(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.

- (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.
- (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.
- (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 segments. -The 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.
- 49 Before beginning construction, the certificate holder shall provide to the Department a map showing the final design locations of all components of the facility, the areas that would be temporarily disturbed during construction and the areas that were surveyed in 2009 as described in the Final Order on the Application. The certificate holder shall hire qualified personnel to conduct field investigations of all areas to be disturbed during construction that lie outside the previously-surveyed areas. The certificate holder shall provide a written report of the field investigations to the Department and to the Oregon State Historic Preservation Office (SHPO) 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.
- 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.
- (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 4 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. [~~AMD4~~AMD5]
- 51 The certificate holder shall ensure that construction personnel cease all ground-disturbing activities in the immediate area if any archaeological or cultural resources are found during

1 construction of the facility until a qualified archaeologist can evaluate the significance of the  
2 find. The certificate holder shall notify the Department and the Oregon State Historic  
3 Preservation Office (SHPO) of the find. If the SHPO determines that the resource is significant,  
4 the certificate holder shall make recommendations to the Council for mitigation, including  
5 avoidance, field documentation and data recovery, in consultation with the Department, SHPO,  
6 interested Tribes and other appropriate parties. -The certificate holder shall not restart work in  
7 the affected area until the certificate holder has demonstrated to the Department and the SHPO  
8 that it has complied with archaeological resource protection regulations

#### 9 4. Geotechnical Conditions

10 52 Before beginning construction ~~of each phase~~ of the facility, the certificate holder shall conduct a  
11 site-specific geotechnical investigation and shall report its findings to the Oregon Department of  
12 Geology & Mineral Industries (DOGAMI) and the Department. The certificate holder shall conduct  
13 the geotechnical investigation after consultation with DOGAMI to confirm appropriate site-specific  
14 methodologies for evaluating seismic and non-seismic hazards to inform equipment foundation  
15 and road design. [Final Order; ~~AMD4~~AMD5]

16 53 The certificate holder shall design and construct the facility in accordance with requirements of  
17 the current Oregon Structural Specialty Code and International Building Code. [~~AMD4~~AMD5]

18 54 The certificate holder shall design, engineer and construct the facility to avoid dangers to human  
19 safety presented by non-seismic hazards. As used in this condition, "non-seismic hazards"  
20 include settlement, landslides, flooding and erosion.

#### 21 5. Hazardous Materials, Fire Protection & Public Safety Conditions

22 55 The certificate holder shall handle hazardous materials used on the site in a manner that  
23 protects public health, safety and the environment and shall comply with all applicable local,  
24 state and federal environmental laws and regulations. The certificate holder shall not store  
25 diesel fuel or gasoline on the facility site during operations. [~~AMD4~~AMD5]

26 56 If a spill or release of hazardous material occurs during construction or operation of the facility,  
27 the certificate holder shall notify the Department within 72 hours and shall clean up the spill or  
28 release and dispose of any contaminated soil or other materials according to applicable  
29 regulations. The certificate holder shall make sure that spill kits containing items such as  
30 absorbent pads are located on equipment and at the ~~Montague Solar~~ O&M ~~buildings~~building.  
31 The certificate holder shall instruct employees about proper handling, storage and cleanup of  
32 hazardous materials

33 ~~57 The certificate holder shall construct turbines and pad-mounted transformers on concrete~~  
34 ~~foundations and shall cover the ground within a 10-foot radius with non-flammable material.~~  
35 ~~The certificate holder shall maintain the non-flammable pad area covering during operation of~~  
36 ~~the facility.~~

37 ~~58 The certificate holder shall install and maintain self-monitoring devices on each turbine, linked~~  
38 ~~to sensors at the operations and maintenance building, to alert operators to potentially~~  
39 ~~dangerous conditions, and the certificate holder shall immediately remedy any dangerous~~  
40 ~~conditions. The certificate holder shall maintain automatic equipment protection features in~~

~~each turbine that would shut down the turbine and reduce the chance of a mechanical problem causing a fire.~~

5957 During construction and operation of the facility, the certificate holder shall ensure that the Montague Solar O&M ~~buildings~~building and all service vehicles are equipped with shovels and portable fire extinguishers of a 4A50BC or equivalent rating.

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 emergency planning and shall invite local fire protection agency personnel to observe any emergency drill or tower rescue training conducted at the facility. [AMD5]

61 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 facility structures. The certificate holder shall provide an updated site plan if ~~additional turbines or~~ other structures are later added to the facility. During operation, the certificate holder shall ensure 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.

62 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.

63 During operation of the facility, the certificate holder shall ensure that all on-site employees receive annual fire prevention and response training by qualified instructors or members of the local fire districts. The certificate holder shall ensure that all employees are instructed to keep vehicles on roads and off dry grassland, except when off-road operation is required for emergency purposes.

~~64 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.~~

~~ii. Phase 2, the certificate holder shall submit a Notice of Proposed Construction or Alteration to the Federal Aviation Administration (FAA) and the Oregon Department of Aviation~~

1 identifying the proposed final locations of turbine towers and meteorological towers to  
2 determine if the structure(s) are a hazard to air navigation and aviation safety. The  
3 certificate holder shall promptly notify the Department of the responses from the FAA and  
4 the Oregon Department of Aviation. The FAA and ODA evaluation and determinations are  
5 valid for 18 months (per OAR 738-070-0180), once issued. The certificate holder shall  
6 maintain current hazard determinations on file commensurate with construction timelines.  
7 [AMD4]

8 ~~65~~ The certificate holder shall follow manufacturers' recommended handling instructions and  
9 procedures to prevent damage to turbine or turbine tower components that could lead to  
10 failure.

11 ~~66~~ The certificate holder shall construct turbine towers with no exterior ladders or access to the  
12 turbine blades and shall install locked tower access doors. The certificate holder shall keep  
13 tower access doors locked at all times, except when authorized personnel are present.

14 ~~67~~ During operation of the facility, the certificate holder shall have a safety monitoring program  
15 and shall inspect all turbine and turbine tower components on a regular basis. The certificate  
16 holder shall maintain or repair turbine and turbine tower components as necessary to protect  
17 public safety.

18 ~~68~~ For turbine types having pad mounted step-up transformers, the certificate holder shall install  
19 the transformers at the base of each tower in locked cabinets designed to protect the public  
20 from electrical hazards and to avoid creation of artificial habitat for raptor prey.

21 ~~69~~ To protect the public from electrical hazards, the certificate holder shall enclose the facility  
22 substations, solar array, and battery storage systems with appropriate fencing and locked gates.  
23 [AMD4AMD5]

24 ~~70~~ Before beginning construction of any new State Highway approaches or utility crossings, the  
25 certificate holder shall obtain all required permits from the Oregon Department of  
26 Transportation (ODOT) subject to the applicable conditions required by OAR Chapter 734,  
27 Divisions 51 and 55. The certificate holder shall submit the necessary application in a form  
28 satisfactory to ODOT and the Department for the location, construction and maintenance of a  
29 new approach to State Highway 19 for access to the site ~~south of Tree Lane.~~ The certificate  
30 holder shall submit the necessary application in a form satisfactory to ODOT and the  
31 Department for the location, construction and maintenance of transmission lines crossing  
32 Highway 19.

33 ~~71~~ The certificate holder shall design and construct new access roads and private road  
34 improvements to standards approved by the Gilliam County Road Department ~~or, where~~  
35 ~~applicable, the Morrow County Public Works Department.~~ Where modifications of County roads  
36 are necessary, the certificate holder shall construct the modifications entirely within the County  
37 road rights-of-way and in conformance with County road design standards subject to the  
38 approval of the Gilliam County Road Department ~~or, where applicable, the Morrow County~~  
39 ~~Public Works Department.~~ Where modifications of State roads or highways are necessary, the  
40 certificate holder shall construct the modifications entirely within the public road rights-of-way  
41 and in conformance with Oregon Department of Transportation (ODOT) standards subject to the  
42 approval of ODOT.

- 1    72    The certificate holder shall construct access roads with a finished width of up to 20 feet,  
2    designed under the direction of a licensed engineer and compacted to meet equipment load  
3    requirements.
- 4    73    During construction of the facility, the certificate holder shall implement measures to reduce  
5    traffic impacts, including:
- 6    (h)    Providing notice to adjacent landowners when heavy construction traffic is anticipated.
- 7    (i)    Providing appropriate traffic safety signage and warnings.
- 8    (j)    Requiring flaggers to be at appropriate locations at appropriate times during  
9    construction to direct traffic.
- 10    (k)    Using traffic diversion equipment (such as advance signage and pilot cars) when slow or  
11    oversize construction loads are anticipated.
- 12    (l)    Maintaining at least one travel lane at all times to the extent reasonably possible so that  
13    roads will not be closed to traffic because of construction vehicles.
- 14    (m)    Encouraging carpooling for the construction workforce.
- 15    (n)    Including traffic control procedures in contract specifications for construction of the  
16    facility.
- 17    (o)    Keeping Highway 19 free of gravel that tracks out onto the highway at facility access  
18    points.
- 19    74    The certificate holder shall ensure that no equipment or machinery is parked or stored on any  
20    County road whether inside or outside the site boundary. The certificate holder may temporarily  
21    park equipment off the road but within County rights-of-way with the approval of the Gilliam  
22    County Road Department ~~or, where applicable, the Morrow County Public Works Department.~~
- 23    75    The certificate holder shall cooperate with the Gilliam County Road Department to ensure that  
24    any unusual damage or wear to county roads that is caused by construction of the facility is  
25    repaired by the certificate holder. Submittal to the Department of an executed Road Use  
26    Agreement with Gilliam County shall constitute evidence of compliance with this condition.  
27    Upon completion of construction, the certificate holder shall restore public roads to pre-  
28    construction condition or better to the satisfaction of the applicable county departments. If  
29    required by Gilliam County, the certificate holder shall post bonds to ensure funds are available  
30    to repair and maintain roads affected by the facility. If construction ~~of a phase~~ of the facility will  
31    utilize county roads in counties other than Gilliam County, the certificate holder shall coordinate  
32    with the Department and the respective county road departments regarding the  
33    implementation of a similar Road Use Agreement. [~~AMD4~~AMD5]
- 34    76    During construction, the certificate holder shall require that all on-site construction contractors  
35    develop and implement a site health and safety plan that informs workers and others on-site  
36    about first aid techniques and what to do in case of an emergency and that includes important  
37    telephone numbers and the locations of on-site fire extinguishers and nearby hospitals. The



certificate holder shall ensure that construction contractors have personnel on-site who are trained and equipped for tower rescue and who are first aid and CPR certified.

77 During operation of the facility, the certificate holder shall develop and implement a site health and safety plan that informs employees and others on-site about first aid techniques and what to do in case of an emergency, including a contingency plan in a fire emergency, and that includes important telephone numbers and the locations of on-site fire extinguishers, nearby 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]

78

(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.

79 The certificate holder shall notify the Department of Energy and the Gilliam County Planning Department within 72 hours of any accidents including mechanical failures on the site associated with construction or operation of the facility that may result in public health and safety concerns

## 6. Water, Soils, Streams & Wetlands Conditions

80

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.

ii. ~~a. Before beginning construction of Phase 2 wind energy generation components, the certificate holder shall submit to the Department and Gilliam County Planning Director for review and approval a topsoil management plan including how topsoil will be 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~~

1 ~~may be incorporated into the final Erosion and Sediment Control Plan, required under~~  
2 ~~sub(c) or may be provided to the Department as a separate plan.~~

3 iii.ii. Prior to beginning facility operation, the certificate holder shall provide the Department a  
4 copy of an operational SPCC plan, if required pursuant to OAR 340-141-0001 to -0240.

5 [AMD4AMD5]  
6

7 81 During construction, the certificate holder shall limit truck traffic to improved road surfaces to  
8 avoid soil compaction, to the extent practicable.

9 82 During construction, the certificate holder shall implement best management practices to  
10 control any dust generated by construction activities, such as applying water to roads and  
11 disturbed soil areas.

12 83 Before beginning construction of the facility ~~or a phase of the facility~~, the certificate holder shall  
13 provide to the Department a map showing the final design locations of all components of the  
14 facility ~~or phase of the facility~~, and the areas that would be disturbed during construction and  
15 showing the wetlands and stream channels previously surveyed by CH2M HILL or HDR as  
16 described in the Final Order on the Application and the Final Order on Amendment #4. For areas  
17 to be disturbed during construction that lie outside of the previously-surveyed areas, the  
18 certificate holder shall hire qualified personnel to conduct a pre-construction investigation to  
19 determine whether any jurisdictional waters of the State exist in those locations within the  
20 proposed expanded site boundary. The certificate holder shall provide a written report on the  
21 pre-construction investigation to the Department and the Department of State Lands for  
22 approval before beginning construction ~~of the phase.~~ The certificate holder shall ensure that  
23 construction and operation of the facility will have no impact on any jurisdictional water  
24 identified in the pre-construction investigation.

25 84 The certificate holder shall avoid impacts to waters of the state in the following manner:

26 (a) The certificate holder shall avoid any disturbance to delineated wetlands.

27 (b) The certificate holder shall construct stream crossings for roads and underground  
28 collector lines substantially as described in the Final Order on the Application or the  
29 Final Order on Amendment #4. In particular, the certificate holder shall not remove  
30 material from waters of the State or add new fill material to waters of the State such  
31 that the total volume of removal and fill exceeds 50 cubic yards for the project as a  
32 whole.

33 (c) The certificate holder shall construct support poles for aboveground lines outside of  
34 delineated stream channels and shall avoid in-channel impacts.

35 [AMD4AMD5]

36 85 During facility operation, the certificate holder shall routinely inspect and maintain all facility  
37 components including roads, ~~pads (including turbine and battery storage pad), pads,~~ solar array,  
38 and trenched areas and, as necessary, maintain or repair erosion and sediment control  
39 measures. [AMD4AMD5]

40 86 During facility operation, the certificate holder shall obtain water for on-site uses from an on-  
41 site well located near the Montague Solar O&M ~~buildings~~building. The certificate holder



shall construct on-site ~~well~~well 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 ~~well~~well. The certificate holder may use other sources of water for on-site uses subject to prior approval by the Department.

87 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 or metal brighteners with the wash water. The certificate holder may use biodegradable, phosphate-free cleaners sparingly. [~~AMD4~~AMD5]

## **7. Transmission Line & EMF Conditions**

88 The certificate holder shall install the 34.5-kV collector system underground to the extent practical. The certificate holder shall install underground lines at a minimum depth of three feet. Based on geotechnical conditions or other engineering considerations, the certificate holder may install segments of the collector system aboveground, but the total length of aboveground segments must not exceed 27 miles.

89 The certificate holder shall take reasonable steps to reduce or manage human exposure to electromagnetic fields, including but not limited to:

(a) Constructing all aboveground transmission lines at least 200 feet from any residence or other occupied structure, measured from the centerline of the transmission line.

(b) 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.

(c) 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.

(d) Designing and maintaining all transmission lines so that induced voltages during operation are as low as reasonably achievable.

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.

## **8. Plants, Wildlife & Habitat Protection Conditions**

91 Prior to construction of the ~~Facility or a phase of the Facility~~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 #45, 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; ~~AMD4~~AMD5]

1    92    The certificate holder shall restore areas disturbed by facility construction but not occupied by  
2           permanent facility structures according to the methods and monitoring procedures described in  
3           the final Revegetation Plans for ~~each phase of the Facility~~ facility, as approved by the  
4           Department in consultation with ODFW. The final Revegetation Plan shall be based on the draft  
5           plan as Attachment E in the Final Order on Request for Amendment #45, and as amended from  
6           time to time. [Amendment #3; ~~AMD4~~AMD5]

7    93    The certificate holder shall:

8           (a) Acquire the legal right to create, enhance, maintain and protect a habitat mitigation area as  
9           long as the site certificate is in effect by means of an outright purchase, conservation  
10          easement or similar conveyance and shall provide a copy of the documentation to the  
11          Department. Within the habitat mitigation area, the certificate holder shall improve the  
12          habitat quality as described in the final Habitat Mitigation Plans for ~~each phase of the~~  
13          Facility, as approved by the Department in consultation with ODFW. The final Habitat  
14          Mitigation Plans shall be based on the draft plan included as Attachment G to the Final  
15          Order on Request for Amendment #3 and updated based on Condition 31. The final Habitat  
16          Mitigation Plans may be amended from time to time. [Amendment #3; ~~AMD4~~AMD5]

17          (b) Prior to construction ~~of Phase 2 components~~, the certificate holder shall finalize and  
18          implement the ~~Phase 2~~ Habitat Mitigation Plan (HMP) included as Attachment D of the Final  
19          Order, as approved by ODOE in Consultation with ODFW. Provision 93(b)(A) regarding  
20          impacted acreage calculations shall be completed and submitted to the department after  
21          construction is complete as described in the condition below.

22          (c) Within 90 days of completion of construction, the certificate holder shall submit to the  
23          department and ODFW an updated HMP Table.  
24          ~~[AMD4~~AMD5]

25    94    The certificate holder shall determine the boundaries of Category 1 Washington ground squirrel  
26           (WGS) habitat based on the locations where the squirrels were found to be active in the most  
27           recent WGS survey prior to the beginning of construction in habitat suitable for WGS foraging or  
28           burrow establishment ("suitable habitat"). The certificate holder shall hire a qualified  
29           professional biologist who has experience in detection of WGS to conduct surveys using a survey  
30           protocol approved by the Oregon Department of Fish and Wildlife (ODFW). The biologist shall  
31           survey all areas of suitable habitat where permanent facility components would be located or  
32           where construction disturbance could occur. Except as provided in (a), the biologist shall  
33           conduct the protocol surveys in the active squirrel season (March 1 to May 31) in 2010 and in  
34           the active squirrel seasons in subsequent years until the beginning of construction in suitable  
35           habitat. The certificate holder shall provide written reports of the surveys to the Department  
36           and to ODFW and shall identify the boundaries of Category 1 WGS habitat. The certificate holder  
37           shall not begin construction within suitable habitat until the identified boundaries of Category 1  
38           WGS habitat have been approved by the Department. Category 1 WGS habitat includes the  
39           areas described in (b) and (c).

40           (a) The certificate holder may omit the WGS survey in any year if the certificate holder  
41           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.

(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.

95 The certificate holder shall implement measures to mitigate impacts to sensitive wildlife habitat during construction including, but not limited to, the following:

(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.

(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 reduction in the likelihood of survival or recovery of the species, as approved by the Department, in consultation with ODA and ODFW.

(c) Before beginning construction ~~of a phase~~ of the facility, the certificate holder's qualified professional biologist shall survey the Category 1 Washington ground squirrel habitat to ensure that the sensitive use area is correctly marked with exclusion flagging and avoided during construction. The certificate holder shall maintain the exclusion markings until construction has been completed.

~~(d) — Before beginning construction of a phase of the facility, certificate holder's qualified professional biologist shall complete the avian use studies that began in September 2009 at six plots within or near the facility site as described in the Final Order on the Application. The certificate holder shall provide a written report on the avian use studies to the Department and to ODFW.~~

~~(e)(d)~~ Before beginning construction of the facility, certificate holder's qualified professional biologist shall complete raptor nest surveys within the raptor nest survey area as described in the Final Order on the Application. The purposes of the survey are to identify any sensitive raptor nests near construction areas and to provide baseline information on raptor nest use for analysis as described in

the Wildlife Monitoring and Mitigation Plan referenced in Condition 91. The certificate holder shall provide a written report on the raptor nest surveys and the surveys to the Department and to ODFW. If the surveys identify the presence of raptor nests within the survey area, the certificate holder shall implement appropriate measures to assure that the design, construction and operation of the facility are consistent with the fish and wildlife habitat mitigation goals and standards of OAR 635-415-0025, as approved by the Department, in consultation with ODFW.

~~(f)~~(e) In the final design layout of the facility, the certificate holder shall locate facility components, access roads and construction areas to avoid or minimize temporary and permanent impacts to high quality native habitat and to retain habitat cover in the general landscape where practicable.

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

| <u>Species</u>   | <u>Sensitive Period</u> | <u>Early Release Date</u> |
|------------------|-------------------------|---------------------------|
| 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 potentially-active nest sites become active during the sensitive period.

If any nest site is determined to be unoccupied by the early release date (May 31), then unrestricted construction activities may occur within 1,300 feet of the nest site after that date. If a nest is occupied by any of these species after the beginning of the sensitive period, the certificate holder will flag the boundaries of a 1,300-foot buffer area around the nest site and shall instruct construction personnel to avoid disturbance of the buffer area. During the sensitive period, the certificate holder shall not engage in high-impact construction activities (activities that involve blasting, grading or other major ground disturbance) 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.

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.

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).

~~97 The certificate holder shall protect the area within 1,300 feet of the BLM Horn Butte Wildlife Area during the long-billed curlew nesting season (March 8 through June 15), as described in this condition. Before beginning construction, the certificate holder shall provide to the 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.~~

98 The certificate holder shall implement measures to avoid or mitigate impacts to sensitive wildlife habitat during construction including, but not limited to, the following:

- (a) Preparing maps to show occlusion areas that are off-limits to construction personnel, such as nesting or denning areas for sensitive wildlife species.
- (b) Avoiding unnecessary road construction, temporary disturbance and vehicle use.
- (c) Limiting construction work to approved and surveyed areas shown on facility constraints maps.
- (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.

99 The certificate holder shall reduce the risk of injuries to avian species by:

- ~~(a) Installing turbine towers that are smooth steel structures that lack features that would allow avian perching.~~
- ~~(b) Locating turbine towers to avoid areas of increased risk to avian species, such as cliff edges, narrow ridge saddles and gaps between hilltops.~~
- ~~(c) Installing meteorological towers that are non-guyed structures to eliminate the risk of avian collision with guy wires.~~

~~Designing~~ 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.

100 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.

101 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.

## 9. Visual Effects Conditions

102 To reduce the visual impact of the facility, the certificate holder shall:

~~(a) Mount nacelles on smooth, steel structures, painted uniformly in a low-reflectivity, neutral white color.~~

~~(b)~~(a) Paint the Montague Solar collector substation ~~structures~~structure in a low-reflectivity neutral color to blend with the surrounding landscape.

~~(c)~~(b) Not allow any advertising to be used on any part of the facility.

~~(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 Montague Solar O&M ~~buildings~~building to identify the facility, ~~may paint turbine numbers on each tower and may allow unobtrusive manufacturers' logos on turbine nacelles.~~

~~(e)~~(d) Maintain any signs allowed under this condition in good repair.

103 The certificate holder shall design and construct the Montague Solar O&M ~~buildings~~building, 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]

104 The certificate holder shall not use exterior nighttime lighting except:

~~(a) The minimum turbine tower lighting required or recommended by the Federal Aviation Administration.~~

~~(b)~~(a) Security lighting at the Montague Solar O&M ~~buildings~~building and ~~at the substations~~substation, provided that such lighting is shielded or downward-directed to reduce glare.

~~(c)~~(b) Minimum lighting necessary for repairs or emergencies.

~~(d)~~(c) Minimum lighting necessary for construction directed to illuminate the work area and shielded or downward-directed to reduce glare.

~~105 — 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.~~

## 10. Noise Control Conditions

106 To reduce construction noise impacts at nearby residences, the certificate holder shall:

- (a) Confine the noisiest operation of heavy construction equipment to the daylight hours.
- (b) Require contractors to install and maintain exhaust mufflers on all combustion engine-powered equipment; and
- (c) Establish a complaint response system at the construction manager's office to address noise complaints.

107 The certificate holder shall provide to the Department:

~~i. — Prior to Phase 1 construction:~~

~~a. — Information that identifies the final design locations of (all turbines, to be built at the facility...~~

~~ii.i. Prior to Phase 2 construction:~~

a. A noise analysis that includes the following Information:

Final design locations of all ~~Phase 1 and Phase 2~~ noise-generating facility components (all wind turbines; substation transformers; inverters and transformers associated with the photovoltaic solar array; and inverters and cooling systems associated with battery storage system).

The maximum sound power level for the ~~Phase 2~~Montague Solar collector substation transformers; ~~and the~~ inverters and transformers associated with the photovoltaic solar array; ~~and~~ inverters and cooling systems associated with battery storage system; ~~and the maximum sound power level and octave band data for the Phase 2 wind turbines selected for the facility based on manufacturers' warranties or confirmed by other means acceptable to the Department.~~

The results of noise analysis ~~of Phase 1 and Phase 2 components~~ according to the final design performed in a manner consistent with the requirements of OAR 340-035-



0035(1)(b)(B)(iii) (IV) and (VI) demonstrating to the satisfaction of the Department that the total noise generated by the facility (including the noise from wind turbines, substation transformers, inverters and transformers associated with the photovoltaic solar array; inverters and cooling systems associated with battery storage system) would meet the ambient degradation test and maximum allowable test at the appropriate measurement point for all potentially-affected noise-sensitive properties. The certificate holder shall verify that all noise sensitive properties within one mile of the final design locations of noise-generating components ~~for Phase 1 and Phase 2~~ have been identified and included in the preconstruction noise analysis based on review of the most recent property owner information obtained from the Gilliam County Tax Assessor Roll.

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; ~~AMD4~~AMD5]

108 During operation of the facility, the certificate holder shall implement measures to ensure compliance with the noise control regulation, including:

- 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.
- 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.

[~~AMD4~~AMD5]

## 11. Waste Management Conditions

109 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.

110 During operation of the facility, the certificate holder shall discharge sanitary wastewater generated at the Montague Solar O&M ~~buildings~~building to a licensed on-site septic



~~system~~system in compliance with State permit requirements. The certificate holder shall design the septic ~~system~~system for a discharge capacity of less than 2,500 gallons per day.

111 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.
- (d) Collecting non-recyclable waste for transport to a local landfill by a licensed waste hauler.
- (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. [~~AMD4~~AMD5]
- (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.

112 The certificate holder shall implement a waste management plan during facility operation that includes but is not limited to the following measures:

- (a) Training employees to minimize and recycle solid waste.
- (b) Recycling paper products, metals, glass and plastics.
- (c) Recycling used oil and hydraulic fluid
- (d) Collecting non-recyclable waste for transport to a local landfill by a licensed waste hauler.
- (e) Segregating all hazardous, non-recyclable 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. [~~AMD4~~AMD5]

#### **VI. CONDITIONS ADDED BY AMENDMENT # 1 OF MONTAGUE**

113 ~~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.]~~

~~114 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.]~~

~~115 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.]~~

## VII. CONDITIONS ADDED BY AMENDMENT #4 OF MONTAGUE

116: 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.

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.

~~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.

~~c-b.~~ [AMD4]

117 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]

## —CONDITIONS ADDED BY AMENDMENT #5

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. 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 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.

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.

**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-~~0100~~400.

**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.

**X. GOVERNING LAW AND FORUM**

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

**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.

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 Facility~~Solar, LLC.

**ENERGY FACILITY SITTING COUNCIL**

By: \_\_\_\_\_

Print: \_\_\_\_\_

Date: \_\_\_\_\_

**MONTAGUE ~~WIND POWER FACILITY~~SOLAR, LLC**

By: \_\_\_\_\_

Print: \_\_\_\_\_

Date: \_\_\_\_\_

and

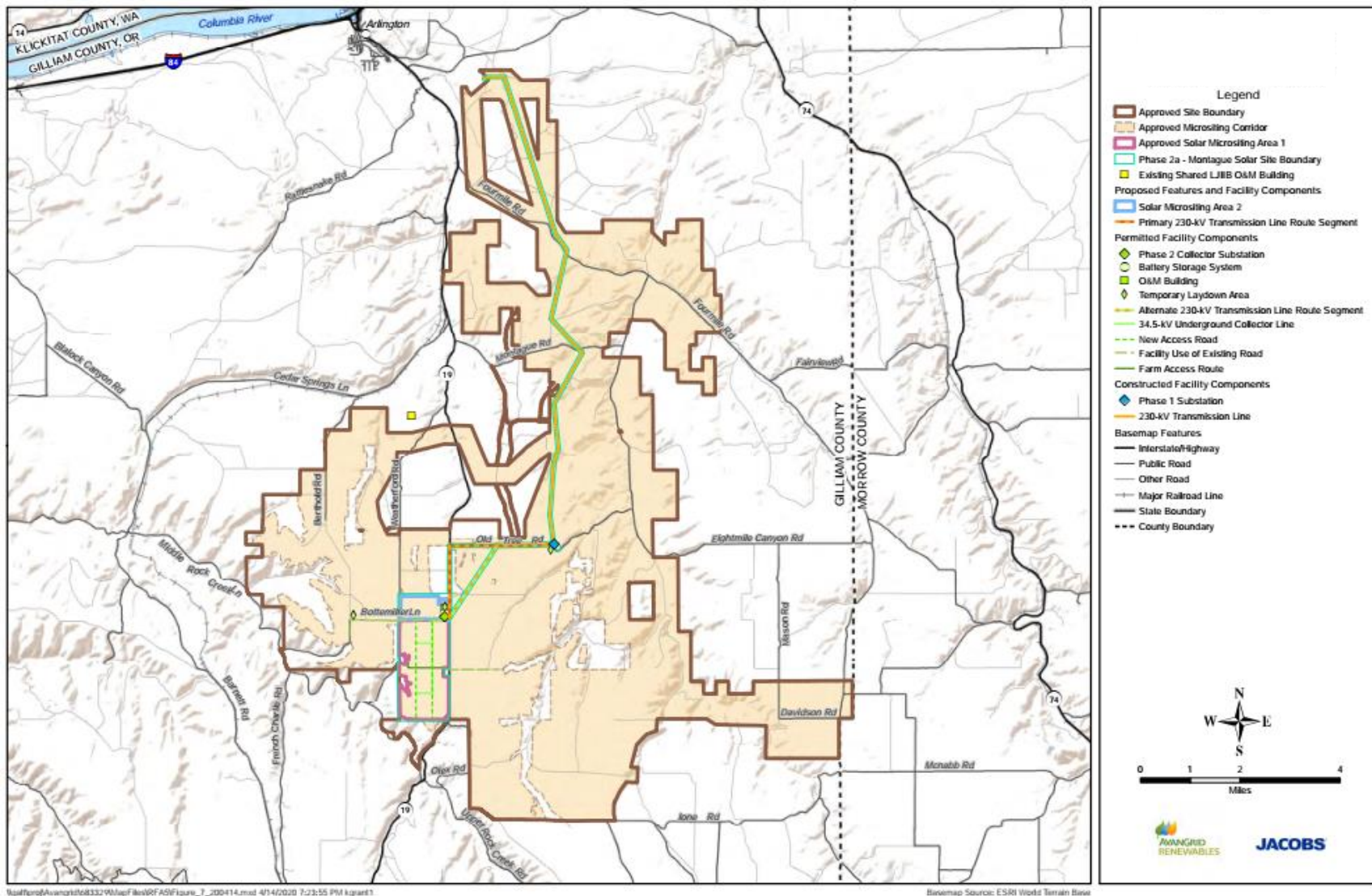
By: \_\_\_\_\_

Print: \_\_\_\_\_

Date: \_\_\_\_\_

1  
2  
3

**Figure 1: Site Boundary and 230 kV transmission line corridor**



3

ENERGY FACILITY SITING COUNCIL

OF THE

STATE OF OREGON

~~Fourth Amended~~ Site Certificate

for the

~~Montague Wind Power~~ Oregon Trail Solar Facility

~~August 23, 2019~~

2020

## I. INTRODUCTION

The Oregon Energy Facility Siting Council (Council) issues this site certificate for the ~~Montague Wind Power~~Oregon Trail Solar 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~~Oregon Trail Solar, LLC (certificate holder), a wholly owned subsidiary of Avangrid Renewables, LLC (certificate holder owner) authorizing the certificate holder to construct and operate the facility in Gilliam County, Oregon. ~~[Amendment #3]~~5]

The findings of fact, reasoning and conclusions of law underlying the terms and conditions of this site certificate are set forth in the following documents, incorporated herein by this reference: ~~-(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 issued on June 21, 2013; and, (c) the Final Order on Amendment #2 issued on December 4, 2015; (d) the Final Order on Amendment #3 issued on July 11, 2017; and (e) the Final Order on Amendment #4 issued on August 23, 2019; and (f) the Final Order on Amendment #5 issued on \_\_\_\_\_, 2020.~~ In interpreting this site certificate, any ambiguity will be clarified by reference to the following, in order of priority: ~~-(1) this FourthFifth Amended Site Certificate, (2) the Final Order on Amendment #45, (3) the Final Order on Amendment #34, (4) the Final Order on Amendment #23, (5) the Final Order on Amendment #1 #2, (6) the Final Order on Amendment #1, (7) the Final Order on the Application, and (78) the record of the proceedings that led to the Final Order on the Application, the Final Order on Amendment #1, and the Final Order on Amendment #2. [Amendment #2]~~

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

## II. SITE CERTIFICATION

(a) To the extent authorized by state law and subject to the conditions set forth herein, the State authorizes the certificate holder to construct, operate and retire a wind and photovoltaic (PV) solar energy facility, together with certain related or supporting facilities, at the site in Gilliam County, Oregon, as described in Section III of this site certificate. ORS 469.401(1). [ASC; AMD4; AMD5]

(a) 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).

(a) This site certificate does not address, and is not binding with respect to, matters that were not addressed in the Final Order on the Application, Final Order on Amendment #1 Final Order on Amendment #2, Final Order on Amendment #3, Final Order on Amendment #4, and Final Order on Amendment #45. Such matters include, but are not limited to: building code compliance, wage, hour and other labor regulations, local government fees and charges and other design or operational issues that do not relate to siting the facility (ORS 469.401(4)) and permits issued under statutes and rules for which the decision on compliance has been delegated by the federal government to a

~~MONTAGUE WIND POWER~~OREGON TRAIL SOLAR FACILITY



state agency other than the Council. 469.503(3). [ASC; AMD1; AMD2; AMD3; AMD4;  
AMD5]

(a) 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).

(a) 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).

(a) Subject to the conditions herein, this site certificate binds the State and all counties, cities and political subdivisions in Oregon as to the approval of the site and the construction, operation and retirement of the facility as to matters that are addressed in and governed by this site certificate. ORS 469.401(3).

(a) Each affected state agency, county, city and political subdivision in Oregon with authority to issue a permit, license or other approval addressed in or governed by this site certificate shall, upon submission of the proper application and payment of the proper fees, but without hearings or other proceedings, issue such permit, license or other approval subject only to conditions set forth in this site certificate. ORS 469.401(3).

(a) After issuance of this site certificate, each state agency or local government agency that issues a permit, license or other approval for the facility shall continue to exercise enforcement authority over such permit, license or other approval. ORS 469.401(3).

(a) After issuance of this site certificate, the Council shall have continuing authority over the site and may inspect, or direct the Oregon Department of Energy (Department) to inspect, or request another state agency or local government to inspect, the site at any time in order to ensure that the facility is being operated consistently with the terms and conditions of this site certificate. ORS 469.430.

(a) Following the completion of surveys required by this site certificate, the Department will present the results of those surveys and required consultations at the next regularly scheduled Council meeting. [AMD2]

### III. DESCRIPTION

#### 1. The Facility

##### (a) The Energy Facility

The ~~Montague Wind Power~~Oregon Trail Solar Facility is an electric power generating plant ~~developed in two phases, Phase 1 and Phase 2. Phase 1 consists of 56~~approved to consist of a combination of up to 16 wind turbines, each consisting of a nacelle, a three-bladed rotor, turbine tower and foundations.~~The (he~~  
MONTAGUE WIND POWEROREGON TRAIL SOLAR FACILITY



nacelle houses the equipment such as the gearbox, generator, brakes, and control systems for the turbines-

~~Phase 2 is approved to consist of a combination of up to 81 wind turbines), and a solar photovoltaic array on up to 1,189,228 acres. The solar array would be composed of solar modules, which are themselves composed of either mono-crystalline or poly-crystalline cells. In addition to the solar modules, the array would also include a tracker system to allow the solar modules to follow the path of the sun throughout the day; cables; inverters; and transformers. The solar array would be connected to the power collection system as described below. Within the solar micro-siting area, solar photovoltaic energy generation equipment could include modules consisting of solar panels, trackers, racks, posts, inverter/transformer units and above- and belowground cabling. Solar panels would be supported by galvanized steel posts, which would be hydraulically driven into the ground at a depth of 5 to 8 feet, with an approximately 4 to 5.5-foot aboveground height. Solar panels would be designed with anti-reflective coating. Modules would be placed on non-specular metal galvanized steel racks, with heights ranging from 4 to 15 feet at full tilt. To convert energy generated within the modules from alternating current (ac) to direct current (dc), inverter/transformer units would be installed. Solar photovoltaic energy generation equipment would be contained by an approximately 8-foot chain-link fence extending around the perimeter. Access to solar facility components would be provided via two new access points on the north side of Bottemiller Lane.~~ 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 Final Order on Amendment #4.

#### (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:

- Power collection system
- Control system
- ~~Substations~~Substation, switching station, and 230-kV transmission lines
- Battery storage system
- Meteorological towers
- Operations and maintenance ~~facilities~~(O&M) building
- Access roads
- Public roadway modifications
- Temporary construction areas

#### **Power Collection System**

A power collection system operating at 34.5 kilovolts (kV) transports power from each turbine ~~or the solar array~~ to ~~athe~~ collector substation. To the extent practicable, the collection system is installed underground at a depth of at least three feet. Not more than 27 miles of the collector system is installed aboveground.

## **Control System**

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

## **Substations Substation, Switching Station, and 230-kV Transmission Lines**

The facility includes two collector substations, ~~one associated~~. One substation ("Montague Wind collector substation") is shared with Phase 1 the Montague Wind Power facility, and the second associated with ("Phase 2-Montague Solar collector substation") is shared with the Montague Solar facility. The facility includes one switching station. An aboveground 34.5-kV collector line connects the switching station to the Montague Solar collector substation. An aboveground, single-circuit 230-kV transmission line connects the Phase 2 Montague Solar collector substation to the Phase 1 Montague Wind collector substation. An aboveground, single-circuit 230-kV transmission line connects the Phase 1 Montague Wind collector substation to the 500-kV Slatt-Buckley transmission line owned by the Bonneville Power Administration (BPA) at the Slatt substation.

## **Battery Storage**

~~Phase 2~~ The facility is approved to include a battery storage system shared with the Montague Solar facility. The battery storage system would be capable of storing up to 100 MW of wind or solar energy generated by the Facility, and would be used to stabilize the wind or solar resource through dispatching of energy stored in the battery system. The battery system is placed in a series of containers or building located near the Phase 2 Montague Solar collector 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 are composed of a variety of different technologies; however, all flow batteries dispatch electricity by allowing the migration of electrons from a positive ion tank to a negative ion tank. The electrons migrate between solutions via a membrane.

The battery storage would occupy up to 6 acres and would include batteries and racks or containers, inverters, isolation transformers, and switchboards, an approximately 20-foot warehouse-type building, medium-voltage and low-voltage electrical systems, fire suppression, heating, ventilation, and air-conditioning systems, building auxiliary electrical systems, and network/SCADA systems. Battery storage would include a cooling system (more advanced systems required for Li-ion), which may include a separate chiller plant located outside the battery racks with chillers, pumps, and heat exchangers. High-voltage (HV) 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.

## **Meteorological Towers**

The facility includes up to ~~eight~~ four permanent meteorological towers.

## **Operations and Maintenance Facilities**

The facility includes ~~two operations and maintenance (O&M) facilities, one associated O&M building~~ (“~~Phase 2 Montague Solar O&M building~~”) shared with ~~Phase 1 and the second with Phase 2. Montague Solar facility.~~ An on-site well at ~~each the Montague Solar~~ O&M facility supplies water for use during facility operation. Sewage is discharged to an on-site septic system.

## **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.

## **Public Roadway Modifications**

The certificate holder may construct improvements to existing state and county public roads that are 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 Oregon Department of Transportation, depending on the location of the improvement.

## **Temporary Construction Areas**

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.

## **(c) Shared Related or Supporting Facilities**

~~The site certificates for the Oregon Trail Solar Facility, Montague Solar Facility, and Montague Wind Power Facility were originally approved as one site certificate for the Montague Wind Power Facility (September 2010 – September 2019). In XX 2020, facility components were split or allocated into three separate site certificates, but identified that certain related or supporting facilities would be shared or used by each facility. Sharing of facility components, or use by multiple facilities, is allowable in the EFSC 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.~~

~~The certificate holder is authorized to share related or supporting facilities between the Oregon Trail Solar Facility, Montague Solar Facility and Montague Wind Power Facility including the Montague Wind collector substation, 230 kV transmission line, temporary laydown areas, and access roads. The certificate holder is authorized to share related or supporting facilities between the Montague Solar Facility and Oregon Trail Solar Facility including the Montague Solar collector substation, 230 kV transmission line, O&M building and battery storage. These related or supporting facilities are included in each site certificate. Compliance responsibility with site certificate conditions and EFSC standards which apply to these shared related or supporting facilities are shared between site certificates and certificate holders. In accordance with Condition 118, if any certificate holder substantially modifies a shared related or supporting facility or ceases facility operation, each certificate holder would be obligated to submit an amendment determination request or request for amendment to the Department to determine the appropriate process for evaluating the change and ensuring full regulatory coverage under each site certificate, or remaining site certificate if either is terminated, in the future.~~

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1 Additionally, each certificate holder is obligated to demonstrate to the Department that a legally binding  
2 agreement has been fully executed between certificate holders to ensure approval and agreement of  
3 access to the shared resources has been obtained prior to operation of shared facilities.

## 4 **2. Location of the Facility**

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

## **IV. CONDITIONS REQUIRED BY COUNCIL RULES**

7 This section lists conditions required by OAR 345-025-0006 (Mandatory Conditions in Site Certificates),  
8 OAR 345025-0010 (Site Specific Conditions), OAR 345-025-0016 (Monitoring and Mitigation Conditions)  
9 and OAR Chapter 345, Division 26 (Construction and Operation Rules for Facilities). These conditions  
10 should be read together with the specific facility conditions listed in Section V to ensure compliance with  
11 the siting standards of OAR Chapter 345, Divisions 22 and 24, and to protect the public health and  
12 safety. In these conditions the definitions in OAR 345-001-0010 apply.

13 The obligation of the certificate holder to report information to the Oregon Department of Energy  
14 (Department) or the Council under the conditions listed in this section and in Section V is subject to the  
15 provisions of ORS 192.502 et seq. and ORS 469.560. To the extent permitted by law, the Department  
16 and the Council will not publicly disclose information that may be exempt from public disclosure if the  
17 certificate holder has clearly labeled such information and stated the basis for the exemption at the time  
18 of submitting the information to the Department or the Council. If the Council or the Department  
19 receives a request for the disclosure of the information, the Council or the Department, as appropriate,  
20 will make a reasonable attempt to notify the certificate holder and will refer the matter to the Attorney  
21 General for a determination of whether the exemption is applicable, pursuant to ORS 192.450.

22 In addition to these conditions, the site certificate holder is subject to all conditions and requirements  
23 contained in the rules of the Council and in local ordinances and state law in effect on the date the  
24 certificate is executed. Under ORS 469.401(2), upon a clear showing of a significant threat to the public  
25 health, safety or the environment that requires application of later-adopted laws or rules, the Council  
26 may require compliance with such later-adopted laws or rules.

27 The Council recognizes that many specific tasks related to the design, construction, operation and  
28 retirement of the facility will be undertaken by the certificate holder's agents or contractors.  
29 Nevertheless, the certificate holder is responsible for ensuring compliance with all provisions of the site  
30 certificate.

31 1 OAR 345-025-0006(1): The Council shall not change the conditions of the site certificate except  
32 as provided for in OAR Chapter 345, Division 27.

33 2 OAR 345-025-0006(2): The certificate holder shall submit a legal description of the site to the  
34 Department of Energy within 90 days after beginning operation of the facility. The legal  
35 description required by this rule means a description of metes and bounds or a description of  
36 the site by reference to a map and geographic data that clearly and specifically identifies the  
37 outer boundaries that contain all parts of the facility.

3 OAR 345-025-0006(3): The certificate holder shall design, construct, operate and retire the facility:

(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.

4 OAR 345-025-0006(4): The certificate holder shall begin and complete construction of the facility by the dates specified in the site certificate. (See Conditions 24 and 25.)

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

(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 during the certificate holder's negotiations to acquire construction rights on another part of the site; or

(b) The certificate holder would construct and operate part of a wind energy facility on that part of the site even if other parts of the facility were modified by amendment of the site certificate or were not built.

6 OAR 345-025-0006(6): ~~If~~ the certificate holder becomes aware of a significant environmental change or impact attributable to the facility, the certificate holder shall, as soon as possible, submit a written report to the Department describing the impact on the facility and any affected site certificate conditions. [~~AMD4~~~~AMD5~~]

7 OAR 345-025-0006(7): The certificate holder shall prevent the development of any conditions on the site that would preclude restoration of the site to a useful, non-hazardous condition to the extent that prevention of such site conditions is within the control of the certificate holder.

8 OAR 345-025-0006(8): Before beginning construction of the facility ~~or a phase of the facility~~, the certificate holder shall submit to the State of Oregon, through the Council, a bond or letter of credit, in a form and amount satisfactory to the Council to restore the site or a portion of the site to a useful, non-hazardous condition. The certificate holder shall maintain a bond or letter of credit in effect at all times until the facility ~~or the phase of the facility~~ has been retired. The Council may specify different amounts for the bond or letter of credit during construction and during operation of the facility ~~or a phase of the facility~~. (See Condition 32.) [~~AMD4~~~~AMD5~~]

- 9 OAR 345-025-0006(9): The certificate holder shall retire the facility if the certificate holder permanently ceases construction or operation of the facility. The certificate holder shall retire the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110. The certificate holder shall pay the actual cost to restore the site to a useful, non-hazardous condition at the time of retirement, notwithstanding the Council's approval in the site certificate of an estimated amount required to restore the site.
- 10 OAR 345-025-0006(10): The Council shall include as conditions in the site certificate all representations in the site certificate application and supporting record the Council deems to be binding commitments made by the applicant.
- 11 OAR 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.
- 12 OAR 345-025-0006(12): The certificate holder shall design, engineer and construct the facility to avoid dangers to human safety and the environment presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events. As used in this rule "seismic hazard" includes ground shaking, ground failure, landslide, liquefaction triggering and consequences (including flow failure, settlement buoyancy, and lateral spreading, cyclic 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]~~
- 13 OAR 345-025-0006(13): The certificate holder shall notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if site investigations or trenching reveal that conditions in the foundation rocks differ significantly from those described in the application for a site certificate. After the Department receives the notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division to propose and implement corrective or mitigation actions.
- 14 OAR 345-025-0006(14): The certificate holder shall notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if shear zones, artesian aquifers, deformations or clastic dikes are found at or in the vicinity of the site. After the Department receives notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division to propose and implement corrective or mitigation actions. ~~[AMD4AMD5]~~
- 15 OAR 345-025-0006(15): Before any transfer of ownership of the facility or ownership of the site certificate holder, the certificate holder shall inform the Department of the proposed new owners. The requirements of OAR 345-027-0100 apply to any transfer of ownership that requires a transfer of the site certificate.



16 OAR 345-025-0006(16): If the Council finds that the certificate holder has permanently ceased construction or operation of the facility without retiring the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110, the Council shall notify the certificate holder and request that the certificate holder submit a proposed final retirement plan to the Department within a reasonable time not to exceed 90 days. If the certificate holder does not submit a proposed final retirement plan by the specified date, the Council may direct the Department to prepare a proposed final retirement plan for the Council's approval. Upon the Council's approval of the final retirement plan, the Council may draw on the bond or letter of credit described in OAR 345-027-0020(8) to restore the site to a useful, non-hazardous condition according to the final retirement plan, in addition to any penalties the Council may impose under OAR Chapter 345, Division 29. If the amount of the bond or letter of credit is insufficient to pay the actual cost of retirement, the certificate holder shall pay any additional cost necessary to restore the site to a useful, non-hazardous condition. After completion of site restoration, the Council shall issue an order to terminate the site certificate if the Council finds that the facility has been retired according to the approved final retirement plan.

17 ~~OAR 35-027-0023(4)~~:

(a) ~~The certificate holder shall design, construct and operate the transmission line in accordance with the requirements of the National Electrical Safety Code approved on June 3, 2011, by the 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 3, Removed by Amendment 4]~~

18 OAR 345-025-0010(5): The certificate holder is authorized to construct a 230 kV transmission line anywhere within the approved corridor, subject to the conditions of the site certificate. The approved corridor is ½-mile in width and 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 Figure 1 of the site certificate.  
[OAR 345-025-0010(5); ASC; AMD4]

19 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]

20 OAR 345-026-0048: Following receipt of the site certificate or an amended site certificate, the certificate holder shall implement a plan that verifies compliance with all site certificate terms and conditions and applicable statutes and rules. As a part of the compliance plan, to verify

1 compliance with the requirement to begin construction by the date specified in the site  
2 certificate, the certificate holder shall report promptly to the Department of Energy when  
3 construction begins. Construction is defined in OAR 345-001-0010. In reporting the beginning of  
4 construction, the certificate holder shall describe all work on the site performed before  
5 beginning construction, including work performed before the Council issued the site certificate,  
6 and shall state the cost of that work. For the purpose of this exhibit, "work on the site" means  
7 any work within a site or corridor, other than surveying, exploration or other activities to define  
8 or characterize the site or corridor. The certificate holder shall document the compliance plan  
9 and maintain it for inspection by the Department or the Council.

10 21 OAR 345-026-0080: The certificate holder shall report according to the following requirements:

11 (a) General reporting obligation for energy facilities under construction or operating:

12 (i) Within six months after beginning construction, and every six months thereafter  
13 during construction of the energy facility and related or supporting facilities, the  
14 certificate holder shall submit a semiannual construction progress report to the  
15 Department of Energy. In each construction progress report, the certificate holder  
16 shall describe any significant changes to major milestones for construction. The  
17 certificate holder shall report on the progress of construction and shall address the  
18 subjects listed in subsections (2)(a), (d), (f) and (g). When the reporting date  
19 coincides, the certificate holder may include the construction progress report within  
20 the annual report described in this rule.

21 (ii) After January 1 but no later than April 30 of each year after beginning operation of  
22 the facility, the certificate holder shall submit an annual report to the Department  
23 addressing the subjects listed in Subsection (2). For the purposes of this rule, the  
24 beginning of operation of the facility means the date when construction of a  
25 significant portion of the facility is substantially complete and the certificate holder  
26 begins commercial operation of the facility as reported by the certificate holder and  
27 accepted by the Department. The Council Secretary and the certificate holder may,  
28 by mutual agreement, change the reporting date.

29 (iii) To the extent that information required by this rule is contained in reports the  
30 certificate holder submits to other state, federal or local agencies, the certificate  
31 holder may submit excerpts from such other reports to satisfy this rule. The Council  
32 reserves the right to request full copies of such excerpted reports

33 (b) In the annual report, the certificate holder shall include the following information for the  
34 calendar year preceding the date of the report:

35 (i) Facility Status: An overview of site conditions, the status of facilities under  
36 construction and a summary of the operating experience of facilities that are in  
37 operation. The certificate holder shall describe any unusual events, such as  
38 earthquakes, extraordinary windstorms, major accidents or the like that occurred  
39 during the year and that had a significant adverse impact on the facility.

40 (ii) Reliability and Efficiency of Power Production: For electric power plants, the plant  
41 availability and capacity factors for the reporting year. The certificate holder shall

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1 describe any equipment failures or plant breakdowns that had a significant impact on  
2 those factors and shall describe any actions taken to prevent the recurrence of such  
3 problems.

4 (iii) Status of Surety Information: Documentation demonstrating that bonds or letters of  
5 credit as described in the site certificate are in full force and effect and will remain in  
6 full force and effect for the term of the next reporting period.

7 (iv) Monitoring Report: A list and description of all significant monitoring and mitigation  
8 activities performed during the previous year in accordance with site certificate terms  
9 and conditions, a summary of the results of those activities and a discussion of any  
10 significant changes to any monitoring or mitigation program, including the reason for  
11 any such changes.

12 (v) Compliance Report: A description of all instances of noncompliance with a site  
13 certificate condition. For ease of review, the certificate holder shall, in this section of  
14 the report, use numbered subparagraphs corresponding to the applicable sections of  
15 the site certificate.

16 (vi) Facility Modification Report: A summary of changes to the facility that the certificate  
17 holder has determined do not require a site certificate amendment in accordance  
18 with OAR 345-027-0050.

19 ~~(vii)....~~

20 22 OAR 345-026-0105: The certificate holder and the Department of Energy shall exchange copies  
21 of all correspondence or summaries of correspondence related to compliance with statutes,  
22 rules and local ordinances on which the Council determined compliance, except for material  
23 withheld from public disclosure under state or federal law or under Council rules. The certificate  
24 holder may submit abstracts of reports in place of full reports; however, the certificate holder  
25 shall provide full copies of abstracted reports and any summarized correspondence at the  
26 request of the Department.

27 23 OAR 345-026-0170: The certificate holder shall notify the Department of Energy within 72 hours  
28 of any occurrence involving the facility if:

29 (a) There is an attempt by anyone to interfere with its safe operation;

30 (b) A natural event such as an earthquake, flood, tsunami or tornado, or a human-caused  
31 event such as a fire or explosion affects or threatens to affect the public health and  
32 safety or the environment; or

33 (c) There is any fatal injury at the facility.

## **V. SPECIFIC FACILITY CONDITIONS**

34 The conditions listed in this section include conditions based on representations in the site certificate  
35 application and supporting record. The Council deems these representations to be binding  
36 commitments made by the applicant. These conditions are required under OAR 345-025-0006.

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The certificate holder must comply with these conditions in addition to the conditions listed in Section IV. This section includes other specific facility conditions the Council finds necessary to ensure 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 Council's discretion, the delegation is warranted under the circumstances of the case.

#### 1. Certificate Administration Conditions

24 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]

25 The certificate holder shall:

~~Complete~~ complete construction of ~~Phase 1 of~~ the facility by ~~September 14, 2020~~ [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. ~~[ASC; AMD2; AMD4]~~ [AMD5]

~~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]~~

~~26 — 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.~~

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.

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]~~

ii. ~~For Phase 2 facility components:~~

(a) Components may include any combination of wind and solar energy generation equipment, up to ~~81~~16 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).

[Final Order on ASC; AMD3; AMD4; AMD5]

28 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.

29 The certificate holder shall:

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.

ii. 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. [~~AMD4~~AMD5]

30 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.

31 Before beginning construction but no more than two years before beginning construction and after considering all micro-siting factors, the certificate holder shall provide to the Department,

1 to the Oregon Department of Fish and Wildlife (ODFW) and to the Planning Director of Gilliam  
2 County detailed maps of the facility site, showing the final locations where the certificate holder  
3 proposes to build facility components, and a table showing the acres of temporary and  
4 permanent habitat impact by habitat category and subtype, similar to Table 6 in the Final Order  
5 on the Application. The detailed maps of the facility site shall indicate the habitat categories of  
6 all areas that would be affected during construction (similar to Figures P-~~8a through 8~~ and P-~~8d9~~  
7 in ~~the site certificate application RFA4~~). In classifying the affected habitat into habitat categories,  
8 the certificate holder shall consult with the ODFW. The certificate holder shall not begin ground  
9 disturbance in an affected area until the habitat assessment has been approved by the  
10 Department. The Department may employ a qualified contractor to confirm the habitat  
11 assessment by on-site inspection.

12 32 ~~i. Before beginning construction of Phase 1 of the facility, the certificate holder shall submit to~~  
13 ~~the State of Oregon through the Council a bond or letter of credit in the amount described~~  
14 ~~herein naming the State of Oregon, acting by and through the Council, as beneficiary or payee.~~  
15 ~~The initial bond or letter of credit is either \$21.511 million (3<sup>rd</sup> Quarter 2010 dollars), to be~~  
16 ~~adjusted to the date of issuance as described in (b), or the amount determined as described in~~  
17 ~~(a). The certificate holder shall adjust the amount of the bond or letter of credit on an annual~~  
18 ~~basis thereafter as described in (b).~~

19 ~~a. The certificate holder may adjust the amount of the bond or letter of credit based~~  
20 ~~on the final design configuration of the facility and turbine types selected by~~  
21 ~~applying the unit costs and general costs illustrated in Table 2 in the Final Order on~~  
22 ~~the Application and calculating the financial assurance amount as described in that~~  
23 ~~order, adjusted to the date of issuance as described in (b) and subject to approval by~~  
24 ~~the Department.~~

25 ~~i. Adjust the Subtotal component of the bond or letter of credit amount~~  
26 ~~(expressed in 3<sup>rd</sup> Quarter 2017 dollars) to present value, using the U.S. Gross~~  
27 ~~Domestic Product Implicit Price Deflator, Chain Weight, as published in the~~  
28 ~~Oregon Department of Administrative Services' "Oregon Economic and~~  
29 ~~Revenue Forecast" or by any successor agency (the "Index") and using the~~  
30 ~~3<sup>rd</sup> Quarter 2017 index values (to represent mid-2004 dollars) and the~~  
31 ~~quarterly index value for the date of issuance of the new bond or letter of~~  
32 ~~credit. If at any time the Index is no longer published, the Council shall~~  
33 ~~select a comparable calculation to adjust mid-2004 dollars to present value.~~

34 ~~ii. Add 1 percent of the adjusted Subtotal (i) for the adjusted performance~~  
35 ~~bond amount to determine the adjusted Gross Cost.~~

36 ~~iii. Add 10 percent of the adjusted Gross Cost (ii) for the adjusted~~  
37 ~~administration and project management costs and 10 percent of the~~  
38 ~~adjusted Gross Cost (ii) for the adjusted future developments contingency.~~

39 ~~iv. Add the adjusted Gross Cost (ii) to the sum of the percentages (iii) and~~  
40 ~~round the resulting total to the nearest \$1,000 to determine the adjusted~~  
41 ~~financial assurance amount.~~

42 ~~b. The certificate holder shall adjust the amount of the bond or letter of credit, using~~  
43 ~~the following calculation and subject to approval by the Department:~~

1 ~~c. The certificate holder shall use a form of bond or letter of credit approved by the~~  
2 ~~Council.~~

3 ~~d. The certificate holder shall use an issuer of the bond or letter of credit approved by~~  
4 ~~the Council.~~

5 ~~e. The certificate holder shall describe the status of the bond or letter of credit in the~~  
6 ~~annual report submitted to the Council under Condition 21.~~

7 ~~f. The bond or letter of credit shall not be subject to revocation or reduction before~~  
8 ~~retirement of the facility site.~~

9 ~~ii.i. Before beginning construction of Phase 2 of the facility, the certificate holder shall submit to~~  
10 ~~the State of Oregon through the Council a bond or letter of credit in the amount described~~  
11 ~~herein naming the State of Oregon, acting by and through the Council, as beneficiary or payee.~~  
12 ~~The bond or letter of credit will be issued for Phase 2 in~~  
13 ~~The bond or letter of credit will be~~  
14 ~~issued for~~ an amount that is either \$~~10.4293.1~~ million (1<sup>st</sup> Quarter 2019 dollars), to be adjusted  
15 to the date of issuance as described in (b), or the amount determined as described in (a). The  
16 certificate holder shall adjust the amount of the bond or letter of credit on an annual basis  
thereafter as described in (b).

17 a. The certificate holder may adjust the amount of the bond or letter of credit based  
18 on the final design configuration of the facility, and both the battery storage or  
19 turbine types selected by applying the unit costs and general costs illustrated in  
20 Table 5 of the *Final Order on Amendment 4* and calculating the financial assurance  
21 amount as described in that order, adjusted to the date of issuance as described in  
22 (b) and subject to approval by the Department. The certificate holder may adjust the  
23 amount of the bond or letter of credit under (a) if opting to construct only a portion  
24 of the facility.

25 b. The certificate holder shall adjust the amount of the bond or letter of credit, using  
26 the following calculation and subject to approval by the Department:

27 i. Adjust the Subtotal component of the bond or letter of credit amount  
28 (expressed in ~~mid-2004 dollars~~1st Qtr 2019 dollars) to present value, using  
29 the U.S. Gross Domestic Product Implicit Price Deflator, Chain-Weight, as  
30 published in the Oregon Department of Administrative Services' "Oregon  
31 Economic and Revenue Forecast" or by any successor agency (the "Index")  
32 and using the average of the ~~2<sup>nd</sup>~~1<sup>st</sup> Quarter and ~~3<sup>rd</sup>~~2<sup>nd</sup> Quarter~~2004-2019~~  
33 index values (to represent mid-~~2004-2019~~ dollars) and the quarterly index  
34 value for the date of issuance of the new bond or letter of credit. If at any  
35 time the Index is no longer published, the Council shall select a comparable  
36 calculation to adjust mid-~~2004-2019~~ dollars to present value.

37 c. The certificate holder shall adjust the amount of the bond or letter of credit, using  
38 the following calculation and subject to approval by the Department:

39 i. Adjust the Subtotal component of the bond or letter of credit amount  
40 (expressed in mid-~~2004-2019~~ dollars) to present value, using the U.S. Gross  
41 Domestic Product Implicit Price Deflator, Chain-Weight, as published in the  
42 Oregon Department of Administrative Services' "Oregon Economic and  
43 Revenue Forecast" or by any successor agency (the "Index") and using the  
44 average of the 2<sup>nd</sup> Quarter and 3<sup>rd</sup> Quarter~~2004~~2004-2019 index values  
45 (to represent mid-2004 dollars) and the quarterly index value for the date of  
46 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-~~2004-2019~~ 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, add 20 percent of the adjusted Gross Cost of the Solar Generation and Battery Storage System (ii) and 10 percent of the adjusted Gross Cost of all other facility components(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.
- d. The certificate holder shall use a form of bond or letter of credit approved by the Council.
  - e. The certificate holder shall use an issuer of the bond or letter of credit approved by the Council.
  - f. 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.
  - g. The bond or letter of credit shall not be subject to revocation or reduction before retirement of the facility site.

~~[AMD4AMD5]~~

33 If the certificate holder elects to use a bond to meet the requirements of Condition 32, the certificate holder shall ensure that the surety is obligated to comply with the requirements of applicable statutes, Council rules and this site certificate when the surety exercises any legal or contractual right it may have to assume construction, operation or retirement of the energy 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.

34 Before beginning construction, the certificate holder shall notify the Department of the identity and qualifications of the major design, engineering and construction contractor(s) for the facility. The certificate holder shall select contractors that have substantial experience in the design, engineering and construction of similar facilities. The certificate holder shall report to the Department any change of major contractors.

35 The certificate holder shall contractually require all construction contractors and subcontractors involved in the construction of the facility to comply with all applicable laws and regulations and with the terms and conditions of the site certificate. Such contractual provisions shall not operate to relieve the certificate holder of responsibility under the site certificate.

36 To ensure compliance with all site certificate conditions during construction, the certificate holder shall have a full-time, on-site assistant construction manager who is qualified in environmental compliance. The certificate holder shall notify the Department of the name, telephone number and e-mail address of this person.

37 Within 72 hours after discovery of conditions or circumstances that may violate the terms or  
conditions of the site certificate, the certificate holder shall report the conditions or  
circumstances to the Department.

## 2. Land Use Conditions

38 The certificate holder shall:

~~i. Consult~~ 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.~~

~~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; ~~AMD4~~AMD5]

39 The certificate holder shall design and construct:

~~i. 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]~~

~~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~~AMD5]

40 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.

41 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).

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

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- 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-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 facility~~the 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 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.
- (l) 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) ~~For Phase 2 facility components, all wind~~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. [AMD4AMD5]

43 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.

44 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.

45 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

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actual latitude and longitude location or Stateplane NAD 83(91) coordinates of each turbine tower, connecting lines and transmission lines and a summary of as-built changes in the facility compared to the original plan.

46 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.

### 3. Cultural Resource Conditions

47 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]

(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 45. The final HRMP shall include the following:

~~i. 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 selected from the HRMP and the implementation schedule to reduce significant adverse indirect impacts to the Weatherford Barn.~~

~~ii.i.~~ 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.

~~[AMD4AMD5]~~

48 In reference to the alignment of the Oregon Trail described in the Final Order on the Application, the certificate holder shall comply with the following requirements:

- (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.
- (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.
- (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.
- (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 segments. The 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.
- 49 Before beginning construction, the certificate holder shall provide to the Department a map showing the final design locations of all components of the facility, the areas that would be temporarily disturbed during construction and the areas that were surveyed in 2009 as described in the Final Order on the Application. The certificate holder shall hire qualified personnel to conduct field investigations of all areas to be disturbed during construction that lie outside the previously-surveyed areas. The certificate holder shall provide a written report of the field investigations to the Department and to the Oregon State Historic Preservation Office (SHPO) 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.
- 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.
- (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 4 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]~~

51 The certificate holder shall ensure that construction personnel cease all ground-disturbing activities in the immediate area if any archaeological or cultural resources are found during construction of the facility until a qualified archaeologist can evaluate the significance of the find. The certificate holder shall notify the Department and the Oregon State Historic Preservation Office (SHPO) of the find. If the SHPO determines that the resource is significant, the certificate holder shall make recommendations to the Council for mitigation, including avoidance, field documentation and data recovery, in consultation with the Department, SHPO, interested Tribes and other appropriate parties. -The certificate holder shall not restart work in the affected area until the certificate holder has demonstrated to the Department and the SHPO that it has complied with archaeological resource protection regulations

#### 4. Geotechnical Conditions

52 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~~]

53 The certificate holder shall design and construct the facility in accordance with requirements of the current Oregon Structural Specialty Code and International Building Code. [~~AMD4AMD5~~]

54 The 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” include settlement, landslides, flooding and erosion.

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

55 The certificate holder shall handle hazardous materials used on the site in a manner that protects public health, safety and the environment and shall comply with all applicable local, state and federal environmental laws and regulations. The certificate holder shall not store diesel fuel or gasoline on the facility site during operations. [~~AMD4AMD5~~]

56 If 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 O&M buildings. The certificate holder shall instruct employees about proper handling, storage and cleanup of hazardous materials

57 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.

58 The certificate holder shall install and maintain self-monitoring devices on each turbine, linked to sensors at the operations and maintenance building, to alert operators to potentially

dangerous conditions, and the certificate holder shall immediately remedy any dangerous conditions. The certificate holder shall maintain automatic equipment protection features in each turbine that would shut down the turbine and reduce the chance of a mechanical problem causing a fire.

59 During construction and operation of the facility, the certificate holder shall ensure that the Montague Solar O&M ~~buildings~~building and all service vehicles are equipped with shovels and portable fire extinguishers of a 4A50BC or equivalent rating.

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 emergency planning and shall invite local fire protection agency personnel to observe any emergency drill or tower rescue training conducted at the facility. [AMD5]

61 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 facility structures. The certificate holder shall provide an updated site plan if additional turbines or other structures are later added to the facility. During operation, the certificate holder shall ensure 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.

62 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.

63 During operation of the facility, the certificate holder shall ensure that all on-site employees receive annual fire prevention and response training by qualified instructors or members of the local fire districts. The certificate holder shall ensure that all employees are instructed to keep vehicles on roads and off dry grassland, except when off-road operation is required for emergency purposes.

64 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.~~

~~Phase 2,~~ 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 to determine if the structure(s) are a hazard to air navigation and aviation safety. The certificate holder shall promptly notify the Department of the responses from the FAA and the Oregon Department of Aviation. The FAA and ODA evaluation and determinations are valid for 18 months (per OAR 738-070-0180), once issued. The certificate holder shall maintain current hazard determinations on file commensurate with construction timelines. ~~[AMD4AMD5]~~

65 The certificate holder shall follow manufacturers' recommended handling instructions and procedures to prevent damage to turbine or turbine tower components that could lead to failure.

66 The 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.

67 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.

68 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.

69 To protect the public from electrical hazards, the certificate holder shall enclose the facility substations, solar array, and battery storage systems with appropriate fencing and locked gates. ~~[AMD4AMD5]~~

70 Before beginning construction of any new State Highway approaches or utility crossings, the certificate holder shall obtain all required permits from the Oregon Department of Transportation (ODOT) subject to the applicable conditions required by OAR Chapter 734, Divisions 51 and 55. The certificate holder shall submit the necessary application in a form satisfactory to ODOT and the Department for the location, construction and maintenance of a new approach to State Highway 19 for access to the site ~~south of Tree Lane.~~ The certificate holder shall submit the necessary application in a form satisfactory to ODOT and the Department for the location, construction and maintenance of transmission lines crossing Highway 19.

71 The certificate holder shall design and construct new access roads and private road improvements to standards approved by the Gilliam County Road Department ~~or, where applicable, the Morrow County Public Works Department.~~ Where modifications of County roads are necessary, the certificate holder shall construct the modifications entirely within the County road rights-of-way and in conformance with County road design standards subject to the approval of the Gilliam County Road Department ~~or, where applicable, the Morrow County Public Works Department.~~ Where modifications of State roads or highways are necessary, the certificate holder shall construct the modifications entirely within the public road rights-of-way

and in conformance with Oregon Department of Transportation (ODOT) standards subject to the approval of ODOT.

72 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.

73 During construction of the facility, the certificate holder shall implement measures to reduce traffic impacts, including:

(h) Providing notice to adjacent landowners when heavy construction traffic is anticipated.

(i) Providing appropriate traffic safety signage and warnings.

(j) Requiring flaggers to be at appropriate locations at appropriate times during construction to direct traffic.

(k) Using traffic diversion equipment (such as advance signage and pilot cars) when slow or oversize construction loads are anticipated.

(l) 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.

(m) Encouraging carpooling for the construction workforce.

(n) Including traffic control procedures in contract specifications for construction of the facility.

(o) Keeping Highway 19 free of gravel that tracks out onto the highway at facility access points.

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.~~

75 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. [~~AMD4~~AMD5]



76 During construction, the certificate holder shall require that all on-site construction contractors develop and implement a site health and safety plan that informs workers and others on-site about first aid techniques and what to do in case of an emergency and that includes important telephone numbers and the locations of on-site fire extinguishers and nearby hospitals. The certificate holder shall ensure that construction contractors have personnel on-site who are trained and equipped for tower rescue and who are first aid and CPR certified.

77 During operation of the facility, the certificate holder shall develop and implement a site health and safety plan that informs employees and others on-site about first aid techniques and what to do in case of an emergency, including a contingency plan in a fire emergency, and that includes important telephone numbers and the locations of on-site fire extinguishers, nearby 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]

78

- (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.

79 The certificate holder shall notify the Department of Energy and the Gilliam County Planning Department within 72 hours of any accidents including mechanical failures on the site associated with construction or operation of the facility that may result in public health and safety concerns

## 6. Water, Soils, Streams & Wetlands Conditions

80

- 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.
- ii.
- a. Before beginning construction of ~~Phase 2~~ wind energy generation components, the certificate holder shall submit to the Department and Gilliam County Planning Director for review and approval a topsoil management plan including how topsoil will be 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

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.

- 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]

81 During construction, the certificate holder shall limit truck traffic to improved road surfaces to avoid soil compaction, to the extent practicable.

82 During 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.

83 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 channels 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.

84 The certificate holder shall avoid impacts to waters of the state in the following manner:

(a) The certificate holder shall avoid any disturbance to delineated wetlands.

(b) The certificate holder shall construct stream crossings for roads and underground collector lines substantially as described in the Final Order on the Application or the Final Order on Amendment #4. In particular, the certificate holder shall not remove material from waters of the State or add new fill material to waters of the State such that the total volume of removal and fill exceeds 50 cubic yards for the project as a whole.

(c) The certificate holder shall construct support poles for aboveground lines outside of delineated stream channels and shall avoid in-channel impacts.

[AMD4AMD5]

85 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]

86 During facility operation, the certificate holder shall obtain water for on-site uses from an on-site ~~well~~ well located near the Montague Solar O&M ~~buildings~~ building. The certificate holder

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shall construct ~~the~~ on-site ~~well~~ well 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 ~~well~~ well. The certificate holder may use other sources of water for on-site uses subject to prior approval by the Department.

87 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 or metal brighteners with the wash water. The certificate holder may use biodegradable, phosphate-free cleaners sparingly. [~~AMD4~~AMD5]

## **7. Transmission Line & EMF Conditions**

88 The certificate holder shall install the 34.5-kV collector system underground to the extent practical. The certificate holder shall install underground lines at a minimum depth of three feet. Based on geotechnical conditions or other engineering considerations, the certificate holder may install segments of the collector system aboveground, but the total length of aboveground segments must not exceed 27 miles.

89 The certificate holder shall take reasonable steps to reduce or manage human exposure to electromagnetic fields, including but not limited to:

~~(a) Constructing all aboveground transmission lines at least 200 feet from any residence or other occupied structure, measured from the centerline of the transmission line.~~

~~(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.

~~(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.

~~(d)~~(c) Designing and maintaining all transmission lines so that induced voltages during operation are as low as reasonably achievable.

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.

## **8. Plants, Wildlife & Habitat Protection Conditions**

91 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 #45, 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; ~~AMD4~~AMD5]

1    92    The certificate holder shall restore areas disturbed by facility construction but not occupied by  
2           permanent facility structures according to the methods and monitoring procedures described in  
3           the final Revegetation Plans for ~~each phase of the Facility~~ facility, as approved by the  
4           Department in consultation with ODFW. The final Revegetation Plan shall be based on the draft  
5           plan as Attachment E in the Final Order on Request for Amendment #45, and as amended from  
6           time to time. [Amendment #3; ~~AMD4~~AMD5]

7    93    The certificate holder shall:

8           (a) Acquire the legal right to create, enhance, maintain and protect a habitat mitigation area as  
9           long as the site certificate is in effect by means of an outright purchase, conservation  
10          easement or similar conveyance and shall provide a copy of the documentation to the  
11          Department. Within the habitat mitigation area, the certificate holder shall improve the  
12          habitat quality as described in the final Habitat Mitigation Plans for ~~each phase of the~~  
13          Facility, as approved by the Department in consultation with ODFW. The final Habitat  
14          Mitigation Plans shall be based on the draft plan included as Attachment G to the Final  
15          Order on Request for Amendment #3 and updated based on Condition 31. The final Habitat  
16          Mitigation Plans may be amended from time to time. [Amendment #3; ~~AMD4~~AMD5]

17          (b) Prior to construction ~~of Phase 2 components~~, the certificate holder shall finalize and  
18          implement the ~~Phase 2~~ Habitat Mitigation Plan (HMP) included as Attachment D of the Final  
19          Order, as approved by ODOE in Consultation with ODFW. Provision 93(b)(A) regarding  
20          impacted acreage calculations shall be completed and submitted to the department after  
21          construction is complete as described in the condition below.

22          (c) Within 90 days of completion of construction, the certificate holder shall submit to the  
23          department and ODFW an updated HMP Table.  
24          ~~[AMD4~~AMD5]

25    94    The certificate holder shall determine the boundaries of Category 1 Washington ground squirrel  
26           (WGS) habitat based on the locations where the squirrels were found to be active in the most  
27           recent WGS survey prior to the beginning of construction in habitat suitable for WGS foraging or  
28           burrow establishment ("suitable habitat"). The certificate holder shall hire a qualified  
29           professional biologist who has experience in detection of WGS to conduct surveys using a survey  
30           protocol approved by the Oregon Department of Fish and Wildlife (ODFW). The biologist shall  
31           survey all areas of suitable habitat where permanent facility components would be located or  
32           where construction disturbance could occur. Except as provided in (a), the biologist shall  
33           conduct the protocol surveys in the active squirrel season (March 1 to May 31) in 2010 and in  
34           the active squirrel seasons in subsequent years until the beginning of construction in suitable  
35           habitat. The certificate holder shall provide written reports of the surveys to the Department  
36           and to ODFW and shall identify the boundaries of Category 1 WGS habitat. The certificate holder  
37           shall not begin construction within suitable habitat until the identified boundaries of Category 1  
38           WGS habitat have been approved by the Department. Category 1 WGS habitat includes the  
39           areas described in (b) and (c).

40           (a) The certificate holder may omit the WGS survey in any year if the certificate holder  
41           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.

(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.

95 The certificate holder shall implement measures to mitigate impacts to sensitive wildlife habitat during construction including, but not limited to, the following:

(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.

(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 reduction in the likelihood of survival or recovery of the species, as approved by the Department, in consultation with ODA and ODFW.

(c) Before beginning construction ~~of a phase~~ of the facility, the certificate holder's qualified professional biologist shall survey the Category 1 Washington ground squirrel habitat to ensure that the sensitive use area is correctly marked with exclusion flagging and avoided during construction. The certificate holder shall maintain the exclusion markings until construction has been completed.

(d) Before beginning construction ~~of a phase~~ of the facility, certificate holder's qualified professional biologist shall complete the avian use studies that began in September 2009 at six plots within or near the facility site as described in the Final Order on the Application. The certificate holder shall provide a written report on the avian use studies to the Department and to ODFW.

(e) Before beginning construction ~~of a phase~~ of the facility, certificate holder's qualified professional biologist shall complete raptor nest surveys within the raptor nest survey area as described in the Final Order on the Application. The purposes of the survey are to identify any sensitive raptor nests near construction areas and to provide baseline

information on raptor nest use for analysis as described in the Wildlife Monitoring and Mitigation Plan referenced in Condition 91. The certificate holder shall provide a written report on the raptor nest surveys and the surveys to the Department and to ODFW. If the surveys identify the presence of raptor nests within the survey area, the certificate holder shall implement appropriate measures to assure that the design, construction and operation of the facility are consistent with the fish and wildlife habitat mitigation goals and standards of OAR 635-415-0025, as approved by the Department, in consultation with ODFW.

(f) In the final design layout of the facility, the certificate holder shall locate facility components, access roads and construction areas to avoid or minimize temporary and permanent impacts to high quality native habitat and to retain habitat cover in the general landscape where practicable.

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

| <u>Species</u>   | <u>Sensitive Period</u> | <u>Early Release Date</u> |
|------------------|-------------------------|---------------------------|
| 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 potentially-active nest sites become active during the sensitive period.

If any nest site is determined to be unoccupied by the early release date (May 31), then unrestricted construction activities may occur within 1,300 feet of the nest site after that date. If a nest is occupied by any of these species after the beginning of the sensitive period, the certificate holder will flag the boundaries of a 1,300-foot buffer area around the nest site and shall instruct construction personnel to avoid disturbance of the buffer area. During the sensitive period, the certificate holder shall not engage in high-impact construction activities (activities that involve blasting, grading or other major ground disturbance) 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.

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.

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).

~~97 The certificate holder shall protect the area within 1,300 feet of the BLM Horn Butte Wildlife Area during the long-billed curlew nesting season (March 8 through June 15), as described in this condition. Before beginning construction, the certificate holder shall provide to the 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.~~

98 The certificate holder shall implement measures to avoid or mitigate impacts to sensitive wildlife habitat during construction including, but not limited to, the following:

- (a) Preparing maps to show occlusion areas that are off-limits to construction personnel, such as nesting or denning areas for sensitive wildlife species.
- (b) Avoiding unnecessary road construction, temporary disturbance and vehicle use.
- (c) Limiting construction work to approved and surveyed areas shown on facility constraints maps.
- (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.

99 The certificate holder shall reduce the risk of injuries to avian species by:

- (a) Installing turbine towers that are smooth steel structures that lack features that would allow avian perching.
- (b) Locating turbine towers to avoid areas of increased risk to avian species, such as cliff edges, narrow ridge saddles and gaps between hilltops.

(c) Installing meteorological towers that are non-guyed structures to eliminate the risk of avian collision with guy-wires.

(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.

100 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.

101 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.

## 9. Visual Effects Conditions

102 To reduce the visual impact of the facility, the certificate holder shall:

(a) Mount nacelles on smooth, steel structures, painted uniformly in a low-reflectivity, neutral white color.

(b) Paint the Montague Solar collector substation and switching station structures in a low-reflectivity neutral color to blend with the surrounding landscape.

(c) Not allow any advertising to be used on any part of the facility.

(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 Montague Solar O&M buildingsbuilding to identify the facility, may paint turbine numbers on each tower and may allow unobtrusive manufacturers' logos on turbine nacelles.

(e) Maintain any signs allowed under this condition in good repair.

103 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 paint the building in a low-reflectivity, neutral color to blend with the surrounding landscape.  
[AMD4AMD5]

104 The certificate holder shall not use exterior nighttime lighting except:

- (a) The minimum turbine tower lighting required or recommended by the Federal Aviation Administration.
- (b) Security lighting at the O&M buildings and at the substations, provided that such lighting is shielded or downward-directed to reduce glare.
- (c) Minimum lighting necessary for repairs or emergencies.
- (d) Minimum lighting necessary for construction directed to illuminate the work area and shielded or downward-directed to reduce glare.

~~105 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.~~

#### 10. Noise Control Conditions

106 To reduce construction noise impacts at nearby residences, the certificate holder shall:

- (a) Confine the noisiest operation of heavy construction equipment to the daylight hours.
- (b) Require contractors to install and maintain exhaust mufflers on all combustion engine-powered equipment; and
- (c) Establish a complaint response system at the construction manager's office to address noise complaints.

107 The certificate holder shall provide to the Department:

i. Prior to ~~Phase 1~~ construction:

~~a. Information that identifies the final design locations of (all turbines, to be built at the facility...~~

~~ii. Prior to Phase 2 construction:~~

a. A noise analysis that includes the following Information:

Final design locations of all ~~Phase 1 and Phase 2~~ noise-generating facility components (all wind turbines; substation transformers; ~~inverters~~ and transformers associated with the photovoltaic solar array; and inverters and cooling systems associated with the battery storage system).

The maximum sound power level for the ~~Phase 2~~ Montague Solar collector substation transformers; inverters and transformers associated with the photovoltaic solar array; inverters and cooling systems associated with battery storage system; and the maximum sound power level and octave band data for the Phase 2 wind turbines selected for the facility based on manufacturers' warranties or confirmed by other means acceptable to the Department.



The results of noise analysis ~~of Phase 1 and Phase 2 components~~ according to the final design performed in a manner consistent with the requirements of OAR 340-035-0035(1)(b)(B)(iii) (IV) and (VI) demonstrating to the satisfaction of the Department that the total noise generated by the facility (including the noise from wind turbines, substation transformers, inverters and transformers associated with the photovoltaic solar array; inverters and cooling systems associated with battery storage system) would meet the ambient degradation test and maximum allowable test at the appropriate measurement point for all potentially-affected noise sensitive properties. The certificate holder shall verify that all noise sensitive properties within one mile of the final design locations of noise-generating components ~~for Phase 1 and Phase 2~~ have been identified and included in the preconstruction noise analysis based on review of the most recent property owner information obtained from the Gilliam County Tax Assessor Roll.

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; ~~AMD4~~AMD5]

108 During operation of the facility, the certificate holder shall implement measures to ensure compliance with the noise control regulation, including:

- 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.
- 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

~~{AMD4}~~

## **11. Waste Management Conditions**

109 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.



1 110 During operation of the facility, the certificate holder shall discharge sanitary wastewater  
2 generated at the Montague Solar O&M buildingsbuilding to a licensed on-site septic  
3 systemssystem in compliance with State permit requirements. The certificate holder shall design  
4 the septic systemssystem for a discharge capacity of less than 2,500 gallons per day.

5 111 The certificate holder shall implement a waste management plan during construction that  
6 includes but is not limited to the following measures:

- 7 (a) Recycling steel and other metal scrap.
- 8 (b) Recycling wood waste.
- 9 (c) Recycling packaging wastes such as paper and cardboard.
- 10 (d) Collecting non-recyclable waste for transport to a local landfill by a licensed waste hauler.
- 11 (e) Segregating all hazardous wastes such as used oil, oily rags and oil-absorbent materials,  
12 and mercury-containing lights and lithium-ion, flow, lead-acid and nickel-cadmium  
13 batteries for disposal by a licensed firm specializing in the proper recycling or disposal of  
14 hazardous wastes. [AMD4AMD5]
- 15 (f) Confining concrete delivery truck rinse-out within the foundation excavation, discharging  
16 rinse water into foundation holes and burying other concrete waste as part of backfilling  
17 the turbine foundation.

18 112 The certificate holder shall implement a waste management plan during facility operation that  
19 includes but is not limited to the following measures:

- 20 (a) Training employees to minimize and recycle solid waste.
- 21 (b) Recycling paper products, metals, glass and plastics.
- 22 (c) Recycling used oil and hydraulic fluid
- 23 (d) Collecting non-recyclable waste for transport to a local landfill by a licensed waste hauler.
- 24 (e) Segregating all hazardous, non-recyclable wastes such as used oil, oily rags and oil-  
25 absorbent materials, and mercury-containing lights and lithium-ion, flow, lead-acid and  
26 nickel-cadmium batteries for disposal by a licensed firm specializing in the proper  
27 recycling or disposal of hazardous wastes. [AMD4AMD5]

## 28 VI. CONDITIONS ADDED BY AMENDMENT # 1 OF MONTAGUE

29 113 ~~The transfer of the First Amended Site Certificate from the certificate holder to Portland General~~  
30 ~~Electric (PGE), the transferee, shall not be effective until PGE executes in closing the form of site~~  
31 ~~certificate naming PGE the certificate holder, which is attached as Attachment B to the Final~~  
32 ~~Order on Amendment #1. Upon closing, the First Amended Site Certificate naming PGE as the~~  
33 ~~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.]

114 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.]

115 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.]

#### **VII. CONDITIONS ADDED BY AMENDMENT #4 OF MONTAGUE**

116: 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.

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.

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]

[AMD4]

117 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**

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. 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 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

1 site certificate amendment is required or to process an amendment for both site  
2 certificates.

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

9 **VIII. SUCCESSORS AND ASSIGNS**

10 To transfer this site certificate or any portion thereof or to assign or dispose of it in any other manner,  
11 directly or indirectly, the certificate holder shall comply with OAR 345-027-~~0100~~0400.

12 **IX. SEVERABILITY AND CONSTRUCTION**

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

17 **X. GOVERNING LAW AND FORUM**

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

**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.

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 Facility~~Oregon Trail Solar, LLC.

**ENERGY FACILITY SITTING COUNCIL**

~~**MONTAGUE WIND POWER FACILITY**~~**OREGON TRAIL SOLAR, LLC**

By: \_\_\_\_\_

By: \_\_\_\_\_

Print: \_\_\_\_\_

Print: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

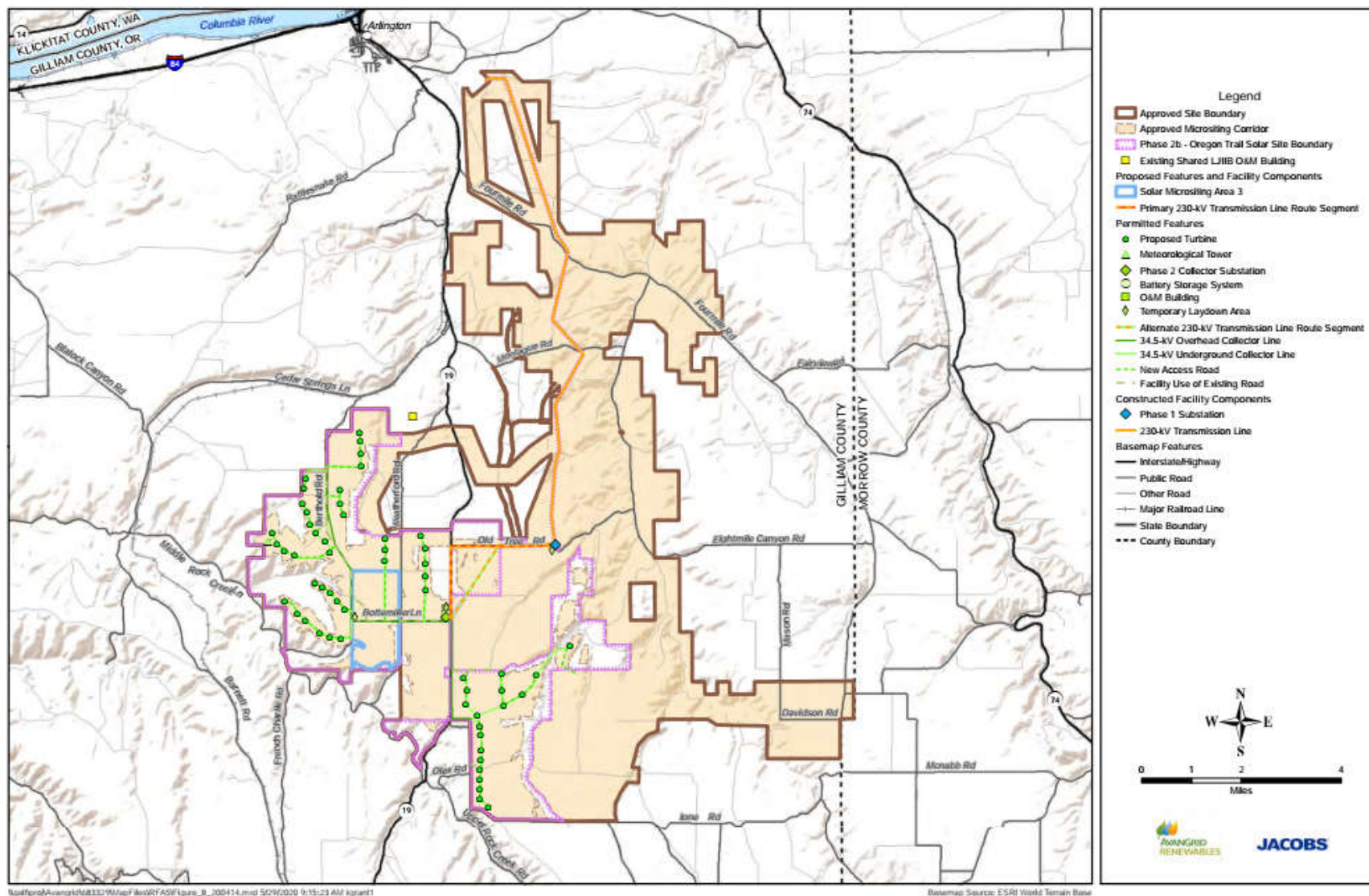
and

By: \_\_\_\_\_

Print: \_\_\_\_\_

Date: \_\_\_\_\_

**Figure 1: Site Boundary and 230 kV transmission line corridor**



**Attachment B**

**Reviewing Agency Comments on preliminary Request for Amendment 5**

## ESTERSON Sarah \* ODOE

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**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: [EFSC Energy Facilities GIS Map](#)

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](mailto:seth.thompson@aviation.state.or.us)

**3040 25<sup>TH</sup> STREET SE, SALEM, OR 97302**

**[WWW.OREGON.GOV/AVIATION](http://WWW.OREGON.GOV/AVIATION)**



**ESTERSON Sarah \* ODOE**

---

**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 8<sup>th</sup> 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 fatalities 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**

[Reserved for Draft Proposed Order Comments/Index]

**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: Amended Habitat Mitigation Plan

[~~AUGUST 2017~~Amended XX 2020]

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## I. Introduction

This plan describes methods and standards for preservation and enhancement of an area of land near the Montague Wind Power Facility (MWPF) to mitigate for the impacts of the facility on wildlife habitat.<sup>1</sup> ~~The certificate holder will construct the facility in two phases.~~ This plan addresses mitigation for both the permanent impacts of facility components and the temporal impacts associated with ~~the first phase (Phase 1) of~~ facility construction. The certificate holder shall protect and enhance the mitigation area as described in this plan. This plan specifies habitat enhancement actions and monitoring procedures to evaluate the success of those actions. Remedial action may be necessary if progress toward habitat enhancement success is not demonstrated in the mitigation area.

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.

## II. Description of the Impacts Addressed by the Plan

The land area that will be occupied by permanent facility components (the "footprint") is approximately 79 acres, based on the final design configuration ~~for Phase 1~~ of the MWPF. In addition to the footprint impacts, construction ~~of Phase 1~~ of the facility could disturb approximately 658 acres. Although much of the area is cropland, habitat that will be affected by construction disturbance includes areas of perennial bunchgrass, and desirable shrubs. After disturbance, the recovery of perennial 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 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 23 impact).

2324

**2425 III. Calculation of the Size of the Mitigation Area**

**2526**

**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.

**2728** The mitigation area must be large enough to meet the habitat mitigation goals and  
**2829** standards of the Oregon Department of Fish and Wildlife (ODFW) described in OAR 635-415-

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<sup>1</sup> 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.

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0025. The ODFW goals require mitigation to achieve “no net loss” of habitat 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 MWPF would not have any impacts on Category 1 or Category 5 habitats.

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 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 construction impacts outside the footprint, the mitigation area includes ½ 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~~.<sup>2</sup>

### Category 2

Footprint impacts: 3.77 acres

Temporary impacts to SSA: 1.43 acres

Mitigation area requirement:  $(3.77 \text{ acres} \times 2) + (1.43 \text{ acres} \times 0.5) = 8.26 \text{ acres}$

### Category 3

Footprint impacts: 5.30 acres

Temporary impacts to SSA: 0.53 acre

Mitigation area requirement:  $5.30 \text{ acres} + (0.53 \text{ acre} \times 0.5) = 5.56 \text{ acres}$

### Category 4

Footprint impacts: 2.33 acres

Mitigation area requirement: 2.33 acres

**Total mitigation area for ~~Phase 1 of the~~ MWPF (rounded up to nearest whole acre): ~~(16.8)~~ acres**

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**IV. Description of the Mitigation Area**

The certificate holder has selected a mitigation area in proximity to the facility where habitat protection and enhancement are feasible consistent with this plan.<sup>3</sup> The applicant has identified a 440-acre parcel in a relatively remote setting where habitat protection and enhancement are feasible.<sup>4</sup> Conservation easements for other wind energy facilities have been established within the 440-acre parcel, and the applicant has an option for establishing a conservation easement for the MWPF on the remaining acres.<sup>5</sup> If sufficient land for ~~Phase 1 of~~ the MWPF mitigation area is not acquired within the 440-acre parcel, the certificate holder shall select other land that is suitable for meeting the mitigation area requirement consistent with this plan. Before beginning construction of ~~Phase 1 of~~ the facility, the certificate holder shall determine the final size of the mitigation area needed for ~~Phase 1 of~~ the facility. The certificate holder shall determine the location and boundaries of the mitigation area in 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 of no net loss of habitat in Categories 2, 3 and 4 and a net benefit in habitat quantity or quality for impacts to Category 2 habitat through appropriate enhancement actions. Before beginning construction ~~of Phase 1 of~~ the facility, the certificate holder shall acquire the legal right to create, maintain and protect the habitat mitigation area for the life of the facility by means of an outright purchase, conservation easement or similar conveyance and shall provide a copy of the documentation to the Department.<sup>6</sup>

**V. Habitat Enhancement Actions**

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, the certificate holder can address the permanent and temporal habitat impacts ~~of Phase 1 of~~ the MWPF and 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 Category 2 habitat. The certificate holder shall initiate the habitat enhancement actions ~~for Phase 1 of~~ the facility as soon as the size of the mitigation area has been determined and approved by the Department. The certificate holder shall implement the following enhancement actions:

- 1) 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

<sup>3</sup> 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.”

<sup>4</sup> 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.

<sup>5</sup> The 440-acre parcel is shown in Figures P-10 and P-11 of the MWPF site certificate application.

<sup>6</sup> 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.



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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.

- 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 to locate 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 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, CRP or cultivated agricultural land. Weed control will promote the growth of desirable native vegetation and planted sagebrush. The certificate holder may consider weeds to be

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successfully controlled when weed clusters have been eradicated or reduced to a non-competing 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.

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 fire control plan to the Department before starting habitat enhancement actions. The certificate holder shall include in the plan appropriate fire prevention measures, methods to detect fires that occur and a protocol for fire response and suppression. The certificate holder shall maintain fire control for the life of the facility. If any part of the mitigation area is damaged by wildfire, the certificate holder shall assess the extent of the damage and implement appropriate actions to restore habitat quality in the damaged area.

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.

7)6) 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.

## VI. Monitoring

### 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:

- 1) Annually assess vegetation cover (species, structural stage, etc.) and progress toward meeting the success criteria.
- 2) Annually record environmental factors (such as precipitation at the time of surveys and precipitation levels for the year).
- 3) 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 resulting from removal of livestock grazing pressure and recovery post-fire by

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1 comparing the quality of bunchgrass and sagebrush cover at the time of each  
2 monitoring visit with the quality observed in previous monitoring visits and as  
3 observed when the mitigation area was first established. The investigator shall  
4 establish photo plots of naturally recovering sagebrush and native bunchgrass during  
5 the first year following the beginning of construction of the MWPF. The investigator  
6 shall take comparison photos in the first year and in every other year thereafter until  
7 the subject vegetation has achieved mature stature. The investigator shall determine  
8 the extent of successful recovery of native bunchgrass based on measurable indicators  
9 (such as signs of more abundant seed production) and shall report on the progress of  
10 recovery within in the monitoring plots. The investigator shall report on the timing  
11 and extent of any livestock grazing that has occurred within the mitigation area since  
12 the previous monitoring visit.

- 13 6) Assess the survival rate and growth of planted sagebrush. At the time of planting,  
14 sagebrush clusters will be marked for monitoring. The investigator  
15 shall select several planted clusters for photo monitoring and shall take close-up and  
16 long-distance digital images of each selected cluster during monitoring visits. The  
17 certificate holder shall determine the number of clusters to be photo-monitored at the  
18 time of planting in consultation with the Department and ODFW, based on the  
19 number of clusters planted. The investigator shall take comparison photos in the first  
20 year following the initial sagebrush planting and in every other year thereafter until  
21 the surviving planted sagebrush has achieved mature stature. In each monitoring year,  
22 the investigator shall determine and report the survival rate of planted sagebrush.  
23 Based on past experience of restoration specialists for other sagebrush planting  
24 projects, a survival rate as high as 50 percent can be achieved if there are years of  
25 high soil moisture, but a more typical survival rate is 2 surviving shrubs per 10  
26 planted (20 percent) after four years. Shrub planting will be considered successful if a  
27 20-percent survival rate is achieved after four years. The investigator shall  
28 recommend remedial action when, in the investigator's judgment, the survival rate of  
29 planted sagebrush is inadequate to demonstrate a trend toward an improvement in  
30 habitat quality.

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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.

### 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 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 meet the mitigation area requirements calculated under Section III based on the final design configuration for ~~Phase 1~~ of the facility. The certificate holder shall determine the actual mitigation area requirements for ~~Phase 1~~ of the facility, subject to Department approval, before beginning construction ~~of Phase 1~~ of the facility. If the land selected for the mitigation area does not already contain sufficient habitat in each category to meet these requirements, then the certificate holder must demonstrate improvement of habitat quality sufficient to change lower-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 indicators such as increased avian use by a diversity of species, survival of planted shrubs, more abundant seed production of desirable native bunchgrass, natural recruitment of sagebrush, and successful weed control. If the certificate holder cannot demonstrate that the habitat mitigation area is trending toward the habitat quality goals described above within four years after the initial sagebrush planting, the certificate holder shall propose remedial action. The Department may require supplemental planting or other corrective measures.

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.

**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 Power~~Solar Facility: Phase 2Draft Habitat Mitigation Plan

[AS AMENDED APRIL 2019XXX 2020]

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## I. Introduction

This plan describes methods and standards for preservation and enhancement of an area of land near the Montague ~~Wind Power~~Solar Facility (MWPF) to mitigate for the impacts of the facility on wildlife habitat.<sup>1</sup> ~~The certificate holder will construct the facility in two phases. This plan addresses mitigation for both the permanent impacts of facility components and the temporal impacts associated with the second phase (Phase 2) of facility construction.~~ The certificate holder shall protect and enhance the mitigation area as described in this plan. This plan specifies habitat enhancement actions and monitoring procedures to evaluate the success of those actions. Remedial action may be necessary if progress toward habitat enhancement success is not demonstrated in the mitigation area.

This plan was approved in September 2019 as part of the Energy Facility Siting Council's (EFSC) Final Order on Request for Amendment 4 of the Montague Wind Power Facility site certificate (Final Order on RFA4). Final Order on RFA4 approved modifications to the 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 acres approved for solar facility components, the land was used for cultivation of dryland winter wheat and was designated habitat Category 6. 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 previously approved facility components (Phase 2) to be allocated under original site certificates for facilities named Montague Solar Facility and Oregon Trail Solar Facility. The site certificate issued for the Montague Solar Facility was based entirely on the previously approved Montague Wind Power Facility site certificate; mitigation plans were based entirely on those approved in the Final Order on RFA4; modifications were incorporated into the site certificates and mitigation plans based on the allocation of previously approved facility components, location and type of equipment.

This Habitat Mitigation Plan is based on the draft amended plan provided as Attachment D of the Final Order on RFA4, revised accordingly to describe and apply to the Montague Solar Facility. The Montague Solar Facility is a 162 megawatt (MW) solar photovoltaic energy facility located within a 1,496 solar micrositing area and 1,763 acre site boundary, in northeastern Gilliam County. The Montague Solar Facility would predominately result in permanent impacts to Category 6 habitat; however, due to the sharing of related or supporting facilities with the Montague Wind Power Facility and Oregon Trail Solar Facility, where impacts to habitat Category 2, 3 or 4 could occur, the requirements of the plan apply. This plan will be finalized, based on final facility layout and evaluation of habitat categories impacted, prior to construction.

## 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

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<sup>1</sup> This plan is incorporated by reference in the site certificate for the Montague ~~Wind Power~~Solar 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.



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disturbance, the recovery of perennial 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 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 impact).

### III. Calculation of the Size of the Mitigation Area

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 configuration of ~~Phase 2 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 2~~ 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~~Solar 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 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 ~~MWPF-Montague Solar Facility~~ 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 every acre of Category 2 SSA (sagebrush shrub-steppe) habitat affected (a 2:1 ratio) and 1 acre for every Category 3 or Category 4 SSA habitat affected (a 1:1 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~~Solar Facility Revegetation Plan. If the revegetation success criteria are not met in the affected areas, then the Oregon Energy Facility Siting Council (“Council”) may require the certificate holder to provide additional mitigation.



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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)~~.<sup>2</sup>

Category 2

Footprint impacts: 2.10 acres

Temporary impacts to SSA: 0.2 acre

Mitigation area requirement:  $(2.10 \text{ acres} \times 2) + (0.2 \text{ acre} \times 2) = 4.60 \text{ acres}$

Category 3

Footprint impacts: 0.44 acre

Temporary impacts to SSA: 0.09 acre

Mitigation area requirement:  $0.44 \text{ acre} + (0.09 \text{ acre} \times 1) = 0.53 \text{ acre}$

Category 4

Footprint impacts: 0.09 acre

Mitigation area requirement: 0.09 acre

**Total mitigation area ~~for Phase 2 (Design Scenario A)~~ of the MWPF (rounded up to nearest whole acre): 6 (5.22) acres**

<sup>2</sup> 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 Power~~Solar Facility: ~~Phase 2~~ Habitat Mitigation Plan

[~~AS AMENDED APRIL 2019~~XXX 2020]

### IV. Description of the Mitigation Area

The certificate holder has selected a mitigation area in proximity to the facility where habitat protection and enhancement are feasible consistent with this plan.<sup>3</sup> The certificate holder has identified a 440-acre parcel in a relatively remote setting where habitat protection and enhancement are feasible.<sup>4</sup> Conservation easements for other wind energy facilities have been established within the 440-acre parcel, and the certificate holder has an option for establishing a conservation easement for the ~~MWPF-Montague Solar Facility~~ on the remaining acres.<sup>5</sup> If sufficient land for ~~Phase 2 of the MWPF the~~ mitigation area is not acquired within the 440-acre parcel, the certificate holder shall select other land that is suitable for meeting the mitigation area requirement consistent with this plan. Before beginning construction ~~of Phase 2~~ of the facility, the certificate holder shall determine the final size of the mitigation area needed ~~for Phase 2~~. The certificate holder shall determine the location and boundaries of the mitigation area in 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 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 through appropriate enhancement actions. Before beginning construction ~~of Phase 2~~ of the facility, the certificate holder shall acquire the legal right to create, maintain and protect the habitat mitigation area for the life of the facility by means of an outright purchase, conservation easement or similar conveyance and shall provide a copy of the documentation to the Department.<sup>6</sup>

### V. Habitat Enhancement Actions

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, the certificate holder can address the permanent and temporal habitat impacts ~~of Phase 2~~ of the ~~MWPF-Montague Solar Facility~~ and 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 shall initiate the habitat enhancement actions for ~~Phase 2~~ of the facility as soon as the size of the mitigation area has been determined and approved by the Department. The certificate holder shall implement the following enhancement actions within the habitat mitigation area:

- 1) 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

<sup>3</sup> 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.”

<sup>4</sup> 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.

<sup>5</sup> The 440-acre parcel is shown in Figures P-10 and P-11 of the ~~MWPF-Montague Wind Power Facility~~ site certificate application.

<sup>6</sup> 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.

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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.

- 2) Shrub Planting. The certificate holder shall plant sagebrush shrubs in locations within the habitat mitigation area 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 certificate holder shall complete the initial sagebrush planting within one year after the beginning of construction ~~of Phase 2 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 to locate 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 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, Conservation Reserve Program or cultivated agricultural land. Weed control will promote the growth of desirable 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 non-competing 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.
- 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 fire control plan to the Department before starting habitat enhancement actions. The certificate holder shall include in the plan appropriate fire prevention measures, methods to detect fires that occur and a protocol for fire response and suppression. The certificate holder shall maintain fire control for the life of the facility. If any part of the mitigation area is damaged by wildfire, the certificate holder shall assess the extent of the damage and implement appropriate actions to restore habitat quality in the damaged area.
- 5) Habitat Protection. The certificate holder shall restrict uses of the mitigation area that are inconsistent with the goals of no net loss of habitat quantity or quality in Categories 2, 3 and 4 and a net benefit in Category 2 habitat quantity or quality.

## VI. Monitoring

### 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.

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:

- 1) Annually assess vegetation cover (species, structural stage, etc.) and progress toward meeting the success criteria.
- 2) Annually record environmental factors (such as precipitation at the time of surveys and precipitation levels for the year).
- 3) 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 resulting from removal of livestock grazing pressure and recovery post-fire by comparing the quality of bunchgrass and sagebrush cover at the time of each 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~~Montague Solar 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 investigator shall determine the extent of successful recovery of native bunchgrass based on measurable indicators (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 and shall take close-up and long-distance digital images of each selected cluster during monitoring visits. 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 first year following the initial sagebrush planting and in every other year thereafter until the surviving planted sagebrush has achieved mature stature. In each monitoring year, 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

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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-Montague Solar Facility~~ that is required by the site certificate.

### 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 meet the mitigation area requirements calculated under Section III based on the final design configuration ~~for Phase 2~~ of the facility. The certificate holder shall determine the actual mitigation area requirements ~~for Phase 2~~ of the facility, subject to Department approval, before beginning construction ~~of Phase 2~~ of the facility. If the land selected for the mitigation area does not already contain sufficient habitat in each category to meet these requirements, then the certificate holder must demonstrate improvement of habitat quality sufficient to change lower-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 indicators such as increased avian use by a diversity of species, survival of planted shrubs, more abundant seed production of desirable native bunchgrass, natural recruitment of sagebrush, and successful weed control. If the certificate holder cannot demonstrate that the habitat mitigation area is trending toward the habitat quality goals described above within four years after the initial sagebrush planting, the certificate holder shall propose remedial action. The Department may require supplemental planting or other corrective measures.

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.

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~~[AS AMENDED APRIL 2019]~~XXX 2020

**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]**

## **I. Introduction**

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 impacts of the facility on wildlife habitat.<sup>1</sup> ~~The certificate holder will construct the facility in two phases.~~ This plan addresses mitigation for ~~both~~ the permanent impacts of facility components ~~and the temporal impacts associated with the second phase (Phase 2) of facility construction.~~ The certificate holder shall protect and enhance the mitigation area as described in this plan. This plan specifies habitat enhancement actions and monitoring procedures to evaluate the success of those actions. Remedial action may be necessary if progress toward habitat enhancement success is not demonstrated in the mitigation area.

This plan was approved in September 2019 as part of the Energy Facility Siting Council's (EFSC) Final Order on Request for Amendment 4 of the Montague Wind Power Facility site certificate (Final Order on RFA4). Final Order on RFA4 approved modifications to the 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 acres approved for solar facility components, the land was used for cultivation of dryland winter wheat and was designated habitat Category 6. 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 previously approved facility components (Phase 2) to be allocated under original site certificates for facilities named Oregon Trail Solar Facility and Montague Solar Facility. The site certificate issued for the Oregon Trail Solar Facility was based entirely on the previously approved Montague Wind Power Facility site certificate; mitigation plans were based entirely on those approved in the Final Order on RFA4; modifications were incorporated into the site certificates and mitigation plans based on the allocation of previously approved facility components, location and type of equipment.

This Habitat Mitigation Plan is based on the draft amended plan provided as Attachment D of the Final Order on RFA4, revised accordingly to describe and apply to the Oregon Trail Solar Facility. 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. This plan will be finalized, based on final facility layout and evaluation of habitat categories impacted, prior to construction.

## **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

<sup>1</sup> 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.



disturbance, the recovery of perennial 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 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 impact).

### **III. Calculation of the Size of the Mitigation Area**

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 configuration of ~~Phase 2 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 2~~ 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-Oregon Trail Wind-PowerSolar 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 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 MWPF-MontagueOregon Trail Solar Facility 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 every acre of Category 2 SSA (sagebrush shrub-steppe) habitat affected (a 2:1 ratio) and 1 acre for every Category 3 or Category 4 SSA habitat affected (a 1:1 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-Oregon Trail Wind-PowerSolar Facility Revegetation Plan. If the revegetation success criteria are not met in the affected areas, then the Oregon Energy Facility Siting Council (“Council”) may require the certificate holder to provide additional mitigation.

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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)~~.<sup>2</sup>

Category 2

Footprint impacts: 2.10 acres

Temporary impacts to SSA: 0.2 acre

Mitigation area requirement:  $(2.10 \text{ acres} \times 2) + (0.2 \text{ acre} \times 2) = 4.60 \text{ acres}$

Category 3

Footprint impacts: 0.44 acre

Temporary impacts to SSA: 0.09 acre

Mitigation area requirement:  $0.44 \text{ acre} + (0.09 \text{ acre} \times 1) = 0.53 \text{ acre}$

Category 4

Footprint impacts: 0.09 acre

Mitigation area requirement: 0.09 acre

**Total mitigation area ~~for Phase 2 (Design Scenario A)~~ of the MWPF (rounded up to nearest whole acre): 6 (5.22) acres**

<sup>2</sup> 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 habitat protection and enhancement are feasible consistent with this plan.<sup>3</sup> The certificate holder has identified a 440-acre parcel in a relatively remote setting where habitat protection and enhancement are feasible.<sup>4</sup> Conservation easements for other wind energy facilities have been established within the 440-acre parcel, and the certificate holder has an option for establishing a conservation easement for the MWPF-Oregon Trail Solar Facility on the remaining acres.<sup>5</sup> If sufficient land for Phase-2 of the MWPF-the mitigation area is not acquired within the 440-acre parcel, the certificate holder shall select other land that is suitable for meeting the mitigation area requirement consistent with this plan. Before beginning construction ~~of Phase-2~~ of the facility, the certificate holder shall determine the final size of the mitigation area needed ~~for Phase-2~~. The certificate holder shall determine the location and boundaries of the mitigation area in 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 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 through appropriate enhancement actions. Before beginning construction ~~of Phase-2~~ of the facility, the certificate holder shall acquire the legal right to create, maintain and protect the habitat mitigation area for the life of the facility by means of an outright purchase, conservation easement or similar conveyance and shall provide a copy of the documentation to the Department.<sup>6</sup>

#### **V. Habitat Enhancement Actions**

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, the certificate holder can address the permanent and temporal habitat impacts ~~of Phase-2~~ of the MWPF-Oregon Trail Solar Facility and 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 shall initiate the habitat enhancement actions for Phase 2 ~~of~~ the facility as soon as the size of the mitigation area has been determined and approved by the Department. The certificate holder shall implement the following enhancement actions within the habitat mitigation area:

- 1) 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

<sup>3</sup> 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.”

<sup>4</sup> 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.

<sup>5</sup> The 440-acre parcel is shown in Figures P-10 and P-11 of the MWPF-Montague Wind Power Facility site certificate application.

<sup>6</sup> 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.

- 2) Shrub Planting. The certificate holder shall plant sagebrush shrubs in locations within the habitat mitigation area 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 certificate holder shall complete the initial sagebrush planting within one year after the beginning of construction ~~of Phase 2 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 to locate 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 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, Conservation Reserve Program or cultivated agricultural land. Weed control will promote the growth of desirable 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 non-competing 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.
- 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 fire control plan to the Department before starting habitat enhancement actions. The certificate holder shall include in the plan appropriate fire prevention measures, methods to detect fires that occur and a protocol for fire response and suppression. The certificate holder shall maintain fire control for the life of the facility. If any part of the mitigation area is damaged by wildfire, the certificate holder shall assess the extent of the damage and implement appropriate actions to restore habitat quality in the damaged area.
- 5) Habitat Protection. The certificate holder shall restrict uses of the mitigation area that are inconsistent with the goals of no net loss of habitat quantity or quality in Categories 2, 3 and 4 and a net benefit in Category 2 habitat quantity or quality.

## **VI. Monitoring**

### **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.

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:

- 1) Annually assess vegetation cover (species, structural stage, etc.) and progress toward meeting the success criteria.
- 2) Annually record environmental factors (such as precipitation at the time of surveys and precipitation levels for the year).
- 3) 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 resulting from removal of livestock grazing pressure and recovery post-fire by comparing the quality of bunchgrass and sagebrush cover at the time of each 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 Oregon Trail Solar 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 investigator shall determine the extent of successful recovery of native bunchgrass based on measurable indicators (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 and shall take close-up and long-distance digital images of each selected cluster during monitoring visits. 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 first year following the initial sagebrush planting and in every other year thereafter until the surviving planted sagebrush has achieved mature stature. In each monitoring year, 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 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.

## **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 meet the mitigation area requirements calculated under Section III based on the final design configuration ~~for Phase 2~~ of the facility. The certificate holder shall determine the actual mitigation area requirements ~~for Phase 2~~ of the facility, subject to Department approval, before beginning construction ~~of Phase 2~~ of the facility. If the land selected for the mitigation area does not already contain sufficient habitat in each category to meet these requirements, then the certificate holder must demonstrate improvement of habitat quality sufficient to change lower-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 indicators such as increased avian use by a diversity of species, survival of planted shrubs, more abundant seed production of desirable native bunchgrass, natural recruitment of sagebrush, and successful weed control. If the certificate holder cannot demonstrate that the habitat mitigation area is trending toward the habitat quality goals described above within four years after the initial sagebrush planting, the certificate holder shall propose remedial action. The Department may require supplemental planting or other corrective measures.

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.



**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**

# Montague Wind Power Facility: Revegetation Plan

[AS AMENDED ~~SEPTEMBER 2017~~ **XX 2020**]

## I. Introduction

This plan describes methods, success criteria, monitoring and reporting requirements for restoration of areas temporarily disturbed during the construction of the Montague Wind Power Facility (MWPF), excluding areas occupied by permanent facility components (the “footprint”).<sup>1</sup> The objective of revegetation is to restore the disturbed areas to pre-disturbance conditions or better. The evaluation of pre-disturbance conditions is based upon evaluation of the revegetated area conditions compared to conditions of approved, fixed-point reference sites, which serve as a proxy for pre-disturbance conditions. It is important to note, however, that habitat conditions at reference sites may fluctuate over time depending on climate and landscape-scale shifts in plant communities, as further described in Section VII. The site certificate for the facility requires restoration of disturbed areas to satisfy the requirements of the Fish and Wildlife Habitat standard (OAR 345-022-0060).

This plan was developed in consultation with the Oregon Department of Fish and Wildlife (ODFW) and approved by the Energy Facility Siting Council in the *Final Order on the Application for Site Certificate* issued in September 2010. The Revegetation Plan was amended in September 2017, to satisfy requirements of Condition 92, based upon final Phase 1 facility design/layout and habitat impact assessment completed in 2017 to satisfy requirements of Condition 31. Temporary habitat impacts (Categories 2, 3 and 4) required to be mitigated through revegetation, as evaluated in September 2017 during pre-construction of the facility, are represented in Table 1 below and temporary disturbance locations are presented in the attached figure.

The amended Habitat Mitigation Plan (Condition 93), as approved in September 2017, 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.

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 be relatively light, but in other areas, heavy construction activity will remove all vegetation, remove topsoil, and compact the remaining subsoil. Where vegetation has been damaged or removed during construction, the certificate holder must restore suitable 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.  
3637

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<sup>1</sup> 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 2017~~XX 2020]

## 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 historic and ongoing livestock grazing and past wildfires.

The general land cover types within the site boundary are Developed, Exposed Rock, Grassland, Shrub-steppe and Woodland. Specifically, functional, mature sagebrush (big sage) shrub-steppe and juniper woodland habitat is patchy, occurring in specific locations within the site boundary. Sagebrush (big sage) shrub-steppe is found on deep soils in patches throughout the site and 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 juniper trees in the Eightmile Canyon area. Riparian woodland habitat within the site is limited to 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 much of the north, middle and south portions of the site.

### 1. Description of the Wildlife Habitat Revegetation Areas

Wildlife habitat areas temporarily impacted during construction, based upon the certificate holder's pre-construction evaluation, are presented in Table 1 below and depicted in the attached figure.<sup>2</sup>

**Table 1: Summary of Wildlife Habitat Revegetation Areas**

| Habitat Description                              | Temporary Impact (Acres) |
|--|--------------------------|
| <b>Category 2</b>                                |                          |
| Grassland – Exotic Annual                        | 1.1                      |
| Grassland – Native Perennial                     | 0.9                      |
| Shrub-steppe – Sagebrush (Big Sage)              | 1.4                      |
| Shrub-steppe – Rabbitbrush/Snakeweed             | 12.4                     |
| <b>Category 2 Subtotal =</b>                     | <b>15.8</b>              |
| Developed – CRP or Other Planted Grassland       | 1.4                      |
| Developed-Revegetated or Other Planted Grassland | 1.0                      |

<sup>2</sup> MWPOPS Condition 31 Habitat Mitigation Plan (August 2017)

## Montague Wind Power Facility: Revegetation Plan

[AS AMENDED ~~SEPTEMBER 2017~~XX 2020]

**Table 1: Summary of Wildlife Habitat Revegetation Areas**

| Habitat Description  | Temporary Impact (Acres) |
|--|--------------------------|
| Grassland – Native Perennial   | 13.9                     |
| Shrub-steppe – Sagebrush (Big Sage)  | 0.5                      |
| Shrub-steppe – Rabbitbrush/Snakeweed   | 2.7                      |
| <b>Category 3 Subtotal =</b>   | <b>19.5</b>              |
| Developed-Revegetated or Other Planted Grassland                                       | 1.8                      |
| Grassland – Exotic Annual  | 4.2                      |
| Shrub-steppe – Rabbitbrush/Snakeweed   | 5.2                      |
| <b>Category 4 Subtotal =</b>   | <b>11.2</b>              |
| <b>Total Temporary Impacts to Wildlife Habitat Areas<br/>(Categories 2, 3 and 4) =</b> | <b>46.5 Acres</b>        |

### 2. Description of the Cropland Revegetation Areas

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.<sup>3</sup>

**Table 2: Summary of Cropland Revegetation Areas**

| Habitat Description   | Temporary Impact (Acres) |
|---|--------------------------|
| <b>Category 6</b>   |                          |
| Developed – Dryland Wheat   | 607.6                    |
| Developed – Other   | 3.3                      |
| <b>Total Temporary Impacts to Cropland Areas<br/>(Category 6) =</b> | <b>610.9</b>             |

### III. Pre-Revegetation Agency Consultation and Revegetation Methods

The certificate holder shall consult with ODFW, ODOE and Gilliam County Weed Control Authority prior to construction to discuss the area(s) to be restored, habitat category and habitat subtype conditions, reference plot location and conditions, topsoil restoration and revegetation methods, erosion and sediment control measures, and implementation schedule.

During construction the certificate holder will implement site stabilization measures, including 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 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 appropriate, and to re-visit reference areas.

<sup>3</sup> MWPOPS Condition 31 Habitat Mitigation Plan DATE  
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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 removed during construction, the topsoil shall be stockpiled separately from the subsurface soils. 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 agency consultation period. The certificate holder shall use mulching and other appropriate practices to control erosion and sediment during construction and during revegetation work. The certificate holder shall select the seed mixes to apply based on the pre-construction land use, as described below. At the recommendation of ODFW, the grass seed mix will be comprised of grasses only in order to maximize flexibility for weed control. The certificate holder shall consult with ODFW as described in Section V below regarding appropriate seeding or planting per site-specific restoration needs.

### 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.

#### (a) Broadcasting

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. Apply weed-free straw from a certified field or sterile straw at a rate of two tons per acre 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 hydroseed equipment at a rate of 100 pounds per acre. Prior to mixing the tackifier, visually 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. Broadcasting should not be used if winds exceed five miles per hour.

#### (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.

### 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 non-disturbed cultivated areas. The certificate holder shall

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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.

### 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 top-dressing for the area of disturbance.

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 lands. The certificate holder shall consult with ODFW, Gilliam County Weed Control Authority, the landowner and the contractor to determine the appropriate seed mix and application rate for these areas based on the characteristics of the affected area. At the recommendation of ODFW, 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 availability and compatibility with local growing conditions. Seed mix selection should consider soil erosion potential, soil type, seed availability and the need for using native or native-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 complying 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.

### 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.



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## VII. Monitoring

### 1. Revegetation Record

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 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 revegetation work began and a description of the work done within the affected area. The certificate holder shall report restoration activities to the Department for the first 5-years after the completion of facility construction. After five years, any restoration actions will be described in the annual report per OAR 345-026-0080(e).

### 2. Monitoring Procedures

The certificate holder shall identify reference sites in consultation with ODFW. 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. 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 with the success criteria. The certificate holder shall employ a qualified investigator (a botanist 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.

#### Weed Control

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.

#### Wildlife Habitat Recovery

After the first growing season following initial seeding (Year 1), a qualified investigator shall inspect each revegetation area to assess revegetation success based on the success criteria and to recommend remedial actions, if needed. The qualified investigator shall reinspect these areas annually for the first 5-years following the completion of construction. The certificate holder shall submit, electronically, to the Department and ODFW the investigator revegetation 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 trending toward meeting the success criteria; assessment of factors impacting the ability of the revegetated area to trend 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 remedial actions recommended.



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1       Following the Year 5 revegetation monitoring the certificate holder shall confer with the  
2 Department and ODFW to develop an action plan for subsequent years. If an area is not trending  
3 toward meeting the success criteria at Year 5 and has not been converted by the landowner to an  
4 inconsistent use, the certificate holder may propose and the Department may require remedial  
5 action and additional monitoring based on an evaluation of site capability. As an alternative, the  
6 certificate holder or the Department may conclude that revegetation of the area was unsuccessful  
7 and propose appropriate mitigation for the permanent loss of habitat quality and quantity. The  
8 certificate holder shall implement the action plan, subject to the approval of the Department.

9       The certificate holder's qualified investigator shall evaluate whether a wildlife habitat  
10 area is trending toward meeting the success criteria by comparing the revegetation area to an  
11 approved reference area. In consultation with the Department and ODFW, prior to construction,  
12 the investigator shall choose reference sites near the revegetation area to represent the target  
13 conditions for the revegetation effort. The investigator shall select one or more reference sites  
14 that closely resemble the pre-disturbance characteristics of the revegetation area as indicated by  
15 site conditions, including vegetation density, relative proportion of desirable vegetation, and  
16 species diversity of desirable vegetation. "Desirable vegetation" means those species included in  
17 the seed mix or native or native-like species, excluding noxious weeds. "Noxious weeds" are  
18 defined as non-native species as identified as noxious on state or county noxious weed lists. The  
19 investigator shall consider land use patterns, soil type, local terrain, and noxious weed densities  
20 in selecting reference sites. It is likely that different reference sites will be needed to represent  
21 different pre-disturbance habitat conditions of the disturbed areas. Once reference sites are  
22 selected by the certificate holder and approved by the Department and ODFW, the reference site  
23 shall remain in the same location unless approval for use of a differing reference site is obtained  
24 by the Department and ODFW. In the first semi-annual revegetation monitoring report submitted  
25 to the Department, the certificate holder shall provide a map and table presenting the latitude and  
26 longitude of the reference sites.

27       During the initial 5-years of annual monitoring, the certificate holder's qualified  
28 investigator shall compare the revegetation area to the selected reference sites, unless some event  
29 (such as wildfire, tilling, or intensive livestock grazing) has changed the vegetation conditions of  
30 a reference site so that it no longer represents undisturbed conditions of the revegetation area. If  
31 such events have eliminated all suitable reference sites for a revegetation area, the investigator,  
32 in consultation with the Department and ODFW, shall select one or more new reference sites.  
33 Following the selection of a new reference site, an updated table and latitude/longitudinal data  
34 shall be provided to the Department within the semi-annual monitoring report or annual  
35 compliance report, whichever report is submitted first.

36       The certificate holder will submit its vegetation monitoring methodology to ODFW and  
37 ODOE for approval prior to assessing baseline conditions and prior to annual monitoring. Within  
38 each revegetation area, the investigator shall evaluate the progress of wildlife habitat recovery in  
39 comparison to the reference sites. The investigator shall evaluate the following site conditions  
40 (both within the revegetation area and within the reference sites):

- 41       • Degree of erosion due to disturbance activities (high, moderate, or low).
- 42       • Vegetation density.

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- 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.

The certificate holder shall report the investigator's findings and recommendations regarding wildlife habitat recovery and revegetation success in the semi-annual revegetation monitoring report to the Department and to ODFW.

### 3. Success Criteria

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.

### 4. Remedial Action

After each monitoring visit, the certificate holder's qualified investigator shall report to the certificate holder regarding the revegetation progress of each wildlife habitat area. The investigator shall make recommendations to the certificate holder for reseeding, weed control or other remedial measures for areas that are not showing progress toward achieving revegetation success based upon consultation with the Department, ODFW, the Gilliam County Weed Control 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 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 the semi-annual revegetation monitoring report. The Department may require reseeding, weed control or other remedial measures in those areas that are not trending towards meeting the success criteria by year 5.

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**

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,  
8 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 Power~~Solar Facility: ~~Phase 2~~ Revegetation Plan

[AS AMENDED APRIL 2019XX 2020]

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## I. Introduction

This plan describes methods, success criteria, and monitoring and reporting requirements for restoration of areas temporarily disturbed during the construction ~~of Phase 2~~ of the Montague ~~Wind Power~~Solar Facility (~~MWPF~~), excluding areas occupied by permanent facility components (the “footprint”).<sup>1</sup> The objective of revegetation is to restore the disturbed areas to pre-disturbance conditions or better. The evaluation of pre-disturbance conditions is 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 to note, however, that habitat conditions at reference sites may fluctuate over time depending on climate and landscape-scale shifts in plant communities, as further described in Section VI. The site certificate for the facility requires restoration of disturbed areas to satisfy the requirements of the Fish and Wildlife Habitat standard (OAR 345-022-0060).

This plan was developed in consultation with the Oregon Department of Fish and Wildlife (ODFW) and approved by the Oregon Energy Facility Siting Council (“Council”) in the *Final Order on the Application for Site Certificate* issued in September 2010. The plan was amended in September 2017 to satisfy the requirements of Condition 92, based on the final Phase 1 facility design/layout and habitat impact assessment completed in 2017 to satisfy requirements of Condition 31. Temporary habitat impacts (Categories 2, 3 and 4) required to be mitigated through revegetation, as evaluated in September 2017 during pre-construction of the facility, are represented in Table 1 below and temporary disturbance locations are presented on the attached figure.

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 previously approved facility components (Phase 2) to be allocated under original site certificates for facilities named Montague Solar Facility and Oregon Trail Solar Facility. The site certificate issued for the Montague Solar Facility was based entirely on the previously approved Montague Wind Power Facility site certificate; mitigation plans were based entirely on those approved in the Final Order on RFA4; modifications were incorporated into the site certificates and mitigation plans based on the allocation of previously approved facility components, location and type of equipment.

The Montague Solar Facility is a 162 megawatt (MW) solar photovoltaic energy facility located within a 1,496 solar micro-siting area and 1,763 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 ~~MWPF~~facility. 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

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<sup>1</sup> 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.

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be relatively light, but in other areas, heavy construction activity will remove all vegetation, remove topsoil, and compact the remaining subsoil. Where vegetation has been damaged or removed during construction, the certificate holder must restore suitable vegetation. In addition, the certificate holder shall maintain erosion and sediment control measures put in place during construction until the affected areas are restored as described in this plan and the revegetation efforts have succeeded enough to control erosion. When there is enough grass in place to hold the soil, the control measures can be removed. The plan specifies monitoring procedures to evaluate revegetation success of disturbed wildlife habitat areas. Remedial action may be necessary for wildlife habitat areas that do not show revegetation progress. Compensatory mitigation may be necessary if revegetation is unsuccessful.

## 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, Grassland, Shrub-steppe, and Woodland. Specifically, functional, mature sagebrush (big sage) shrub-steppe and juniper woodland habitat is patchy, occurring in specific locations within the site boundary. Sagebrush (big sage) shrub-steppe is found on deep soils in patches throughout the site and 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 juniper trees in the Eightmile Canyon area. Riparian woodland habitat within the site is limited to 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 much of the north, middle and south portions of the site.

### 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.<sup>2</sup>

**Table 1: Summary of Wildlife Habitat Revegetation Areas**

| Habitat Description | Temporary Impact (Acres) |
|---------------------|--------------------------|
| Category 2          |                          |

<sup>2</sup> MWPOPS Condition 31 *Habitat Mitigation Plan* (amended January 2018)

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**[AS AMENDED JANUARY 2018XX 2020]**

**Table 1: Summary of Wildlife Habitat Revegetation Areas**

| <b>Habitat Description</b>  | <b>Temporary Impact (Acres)</b> |
|---|---------------------------------|
| Grassland – Exotic Annual   | 10.22                           |
| Developed-Revegetated or Other Planted Grassland  | 11.03                           |
| <b>Category 2 Subtotal =</b>  | <b>21.25</b>                    |
| <b>Category 3</b>   |                                 |
| 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                            |
| <b>Category 3 Subtotal =</b>  | <b>8.26</b>                     |
| <b>Category 4</b>   |                                 |
| Grassland – Exotic Annual   | 0.85                            |
| <b>Category 4 Subtotal =</b>  | <b>0.85</b>                     |
| <b>Total Temporary Impacts to Wildlife Habitat Revegetation Areas (Categories 2, 3 and 4) =</b> | <b>30.36 Acres</b>              |

## 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.<sup>3</sup>

**Table 2: Summary of Cropland Revegetation Areas**

| <b>Habitat Description</b>   | <b>Temporary Impact (Acres)</b> |
|--|---------------------------------|
| <b>Category 6</b>  |                                 |
| Developed – Dryland Wheat  | 460.41                          |
| Developed – Irrigated Agriculture  | 5.98                            |
| Developed – Other  | 2.58                            |
| <b>Total Temporary Impacts to Cropland Revegetation Areas (Category 6) =</b> | <b>468.97</b>                   |

## III. Pre-Revegetation Agency Consultation and Revegetation Methods

The certificate holder shall consult with ODFW, ODOE and Gilliam County Weed Control Authority prior to construction to discuss the area(s) to be restored, habitat category and habitat subtype conditions, reference plot location and conditions, topsoil restoration and revegetation methods, erosion and sediment control measures, and implementation schedule.

<sup>3</sup> MWPOPS Condition 31 *Habitat Mitigation Plan* (amended January 2018)



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During construction, the certificate holder will implement site stabilization measures, including seeding of temporarily disturbed areas according to its National Pollutant Discharge Elimination System permit. Six months prior to commercial operation, the certificate holder will meet with ODFW, ODOE and Gilliam County 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 appropriate, and to revisit reference areas.

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 removed during construction, the topsoil shall be stockpiled separately from the subsurface soils. 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 agency consultation period. The certificate holder shall use mulching and other appropriate practices to control erosion and sediment during construction and during revegetation work. The certificate holder shall select the seed mix to apply based on the pre-construction land use, as described below. In order to maximize flexibility for weed control, the seed mix shall consist of grasses only, with shrub seeding to occur through normal plant succession. The certificate holder shall consult with ODFW as described in Section 1 below regarding appropriate seeding or planting per site-specific restoration needs.

### 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.

#### (a) Broadcasting

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. Apply weed-free straw from a certified field or sterile straw at a rate of two tons per acre 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 hydroseed equipment at a rate of 100 pounds per acre. Prior to mixing the tackifier, visually 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. Broadcasting should not be used if winds exceed five miles per hour.

#### (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 through the mulch provided the drill can penetrate the straw resulting in seed-to-soil contact conducive for germination.



#### 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.

#### 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 top-dressing for the area of disturbance.

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 lands. The certificate holder shall consult with ODFW, Gilliam County Weed Control Authority, the landowner, and the contractor to determine the appropriate seed mix and application rate for these areas based on the characteristics of the affected area. In order to maximize flexibility for weed control, the seed mix shall consist of grasses only, with shrub seedling to occur through 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 consider soil erosion potential, soil type, seed availability and the need for using native or native-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 complying 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.

#### 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 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.
- 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.

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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.
- Seed and straw mulch to be used for site rehabilitation will be inspected and certified free of weed seed and propagules.

## VII. Monitoring

### 1. Revegetation Record

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 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 revegetation work began and a description of the work done within the affected area. The certificate holder shall report restoration activities to the Department for the first five years after the completion of facility construction. After five years, any restoration actions will be described in the annual report per OAR 345-026-0080(e).

### 2. Monitoring Procedures

The certificate holder shall identify reference sites in consultation with ODFW. Reference sites shall be chosen to represent each of the native habitat types shown in Table 1 above: Grassland – Native perennial and Shrub-steppe – Sagebrush (big sage). 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. 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 with the success criteria. The certificate holder shall employ a qualified investigator (a botanist or revegetation specialist) to examine all noncropland 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.

#### Weed Control

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

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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  
7 be contacted to treat this species as soon after it is observed as practicable. If control measures  
8 are ineffective, the certificate holder will confer with the Department, ODFW, and the Gilliam  
9 County Weed Control Authority to develop alternative control measures.

10 *Wildlife Habitat Recovery*

11 After the first growing season following initial seeding (Year 1), a qualified investigator  
12 shall inspect each revegetation area to assess revegetation success based on the success criteria  
13 and to recommend remedial actions, if needed. The qualified investigator shall reinspect these  
14 areas annually for the first five years following the completion of construction. The certificate  
15 holder shall submit, electronically, to the Department and ODFW the investigator revegetation  
16 inspection report within 60 days following each inspection. The report shall include the  
17 investigator's assessment of whether the revegetated areas are trending toward meeting the  
18 success criteria; assessment of factors impacting the ability of the revegetated area to trend  
19 towards meeting the success criteria; description of appropriate weed control measures as  
20 recommended by the Department, ODFW and Gilliam County Weed Control Authority; and, any  
21 remedial actions recommended.

22 The certificate holder shall confer with the Department and ODFW within 60 days of  
23 receipt of the investigator's inspection report to develop an action plan for subsequent years. If  
24 an area is not trending toward meeting the success criteria at Year 5 and has not been converted  
25 by the landowner to an inconsistent use, the certificate holder may propose and the Department  
26 may require remedial action and additional monitoring based on an evaluation of site capability.  
27 As an alternative, the certificate holder or the Department may conclude that revegetation of the  
28 area was unsuccessful and propose appropriate mitigation for the permanent loss of habitat  
29 quality and quantity. The certificate holder shall implement the action plan, subject to the  
30 approval of the Department.

31 The certificate holder's qualified investigator shall evaluate whether a wildlife habitat  
32 area is trending toward meeting the success criteria by comparing the revegetation area to an  
33 approved reference area. In consultation with the Department and ODFW, prior to construction,  
34 the investigator shall choose reference sites near the revegetation area to represent the target  
35 conditions for the revegetation effort. The investigator shall select one or more reference sites  
36 that closely resemble the pre-disturbance characteristics of the revegetation area as indicated by  
37 site conditions, including vegetation density, relative proportion of desirable vegetation and  
38 species diversity of desirable vegetation. "Desirable vegetation" means those species included in  
39 the seed mix or native or native-like species, excluding noxious weeds. The investigator shall  
40 consider land use patterns, soil type, local terrain, and noxious weed densities in selecting  
41 reference sites. It is likely that different reference sites will be needed to represent different pre-  
42 disturbance habitat conditions of the disturbed areas. Once reference sites are selected by the  
43 certificate holder and approved by the Department and ODFW, the reference site shall remain in  
44 the same location unless approval for use of a differing reference site is obtained by the  
45 Department and ODFW. In the first six-month revegetation record report submitted to the

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Department, the certificate holder shall provide a map and table presenting the latitude and longitude of the reference sites.

During the initial five years of annual monitoring, the certificate holder's qualified investigator shall compare the revegetation area to the selected reference sites, unless some event (such as wildfire, tilling, or intensive livestock grazing) has changed the vegetation conditions of 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, in consultation with the Department and ODFW, shall select one or more new reference sites. Following the selection of a new reference site, an updated table and latitude/longitudinal data shall be provided to the Department within a six-month revegetation record report or annual 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.

### 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

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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.

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.

### 4. Remedial Action

After each monitoring visit, the certificate holder's qualified investigator shall report to the certificate holder regarding the revegetation progress of each wildlife habitat area. The investigator shall make recommendations to the certificate holder for reseeding, weed control or other remedial measures for areas that are not showing progress toward achieving revegetation success based upon consultation with the Department, ODFW, the Gilliam County Weed Control 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 appropriate action to meet the objectives of this revegetation plan. Within 60 days of receipt of the investigator's monitoring report, the certificate holder shall report to the Department the investigator's recommendations and the remedial actions taken. The Department may require reseeding, weed control or other remedial measures in those areas that are not trending towards meeting the success criteria by year 5.

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.

### 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.

## **Draft Oregon Trail Solar Facility Revegetation Plan**



# **Montague Oregon Trail Wind Power Solar Facility: Phase 2 Revegetation Plan** **[AS AMENDED APRIL 2019XX 2020]**

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## **I. Introduction**

This plan describes methods, success criteria, and monitoring and reporting requirements for restoration of areas temporarily disturbed during the construction of Phase 2 of the ~~Montague Oregon Trail Wind Power Solar Facility (MWPF)~~, excluding areas occupied by permanent facility components (the “footprint”).<sup>1</sup> The objective of revegetation is to restore the disturbed areas to pre-disturbance conditions or better. The evaluation of pre-disturbance conditions is 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 to note, however, that habitat conditions at reference sites may fluctuate over time depending on climate and landscape-scale shifts in plant communities, as further described in Section VI. The site certificate for the facility requires restoration of disturbed areas to satisfy the requirements of the Fish and Wildlife Habitat standard (OAR 345-022-0060).

This plan was developed in consultation with the Oregon Department of Fish and Wildlife (ODFW) and approved by the Oregon Energy Facility Siting Council (“Council”) in the *Final Order on the Application for Site Certificate* issued in September 2010. The plan was amended in September 2017 to satisfy the requirements of Condition 92, based on the final Phase 1 facility design/layout and habitat impact assessment completed in 2017 to satisfy requirements of Condition 31. Temporary habitat impacts (Categories 2, 3 and 4) required to be mitigated through revegetation, as evaluated in September 2017 during pre-construction of the facility, are represented in Table 1 below and temporary disturbance locations are presented on the attached figure.

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 previously approved facility components (Phase 2) to be allocated under original site certificates for facilities named Oregon Trail Solar Facility and Montague Solar Facility. The site certificate issued for the Oregon Trail Solar Facility was based entirely on the previously approved Montague Wind Power Facility site certificate; mitigation plans were based entirely on those approved in the Final Order on RFA4; modifications were incorporated into the site certificates and mitigation plans based on the allocation of previously approved facility components, location and type of equipment.

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 ~~MWPF~~ facility. 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

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<sup>1</sup> 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.

habitat areas). The intensity of the construction impact will vary. In some areas, the impact will be relatively light, but in other areas, heavy construction activity will remove all vegetation, remove topsoil, and compact the remaining subsoil. Where vegetation has been damaged or removed during construction, the certificate holder must restore suitable vegetation. In addition, the certificate holder shall maintain erosion and sediment control measures put in place during construction until the affected areas are restored as described in this plan and the revegetation efforts have succeeded enough to control erosion. When there is enough grass in place to hold the soil, the control measures can be removed. The plan specifies monitoring procedures to evaluate revegetation success of disturbed wildlife habitat areas. Remedial action may be necessary for wildlife habitat areas that do not show revegetation progress. Compensatory mitigation may be necessary if revegetation is unsuccessful.

## **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, Grassland, Shrub-steppe, and Woodland. Specifically, functional, mature sagebrush (big sage) shrub-steppe and juniper woodland habitat is patchy, occurring in specific locations within the site boundary. Sagebrush (big sage) shrub-steppe is found on deep soils in patches throughout the site and 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 juniper trees in the Eightmile Canyon area. Riparian woodland habitat within the site is limited to 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 much of the north, middle and south portions of the site.

### **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.<sup>2</sup>

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<sup>2</sup> MWPOPS Condition 31 *Habitat Mitigation Plan* (amended January 2018)



**Table 1: Summary of Wildlife Habitat Revegetation Areas**

| <b>Habitat Description</b>  | <b>Temporary Impact (Acres)</b> |
|---|---------------------------------|
| <b>Category 2</b>   |                                 |
| Grassland – Exotic Annual   | 10.22                           |
| Developed-Revegetated or Other Planted Grassland  | 11.03                           |
| <b>Category 2 Subtotal =</b>  | <b>21.25</b>                    |
| <b>Category 3</b>   |                                 |
| 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                            |
| <b>Category 3 Subtotal =</b>  | <b>8.26</b>                     |
| <b>Category 4</b>   |                                 |
| Grassland – Exotic Annual   | 0.85                            |
| <b>Category 4 Subtotal =</b>  | <b>0.85</b>                     |
| <b>Total Temporary Impacts to Wildlife Habitat Revegetation Areas (Categories 2, 3 and 4) =</b> | <b>30.36 Acres</b>              |

## **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.<sup>3</sup>

**Table 2: Summary of Cropland Revegetation Areas**

| <b>Habitat Description</b>   | <b>Temporary Impact (Acres)</b> |
|--|---------------------------------|
| <b>Category 6</b>  |                                 |
| Developed – Dryland Wheat  | 460.41                          |
| Developed – Irrigated Agriculture  | 5.98                            |
| Developed – Other  | 2.58                            |
| <b>Total Temporary Impacts to Cropland Revegetation Areas (Category 6) =</b> | <b>468.97</b>                   |

## **III. Pre-Revegetation Agency Consultation and Revegetation Methods**

The certificate holder shall consult with ODFW, ODOE and Gilliam County Weed Control Authority prior to construction to discuss the area(s) to be restored, habitat category and

<sup>3</sup> MWPOPS Condition 31 *Habitat Mitigation Plan* (amended January 2018)

habitat subtype conditions, reference plot location and conditions, topsoil restoration and revegetation methods, erosion and sediment control measures, and implementation schedule. During construction, the certificate holder will implement site stabilization measures, including seeding of temporarily disturbed areas according to its National Pollutant Discharge Elimination System permit. Six months prior to commercial operation, the certificate holder will meet with ODFW, ODOE and Gilliam County 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 appropriate, and to revisit reference areas.

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 removed during construction, the topsoil shall be stockpiled separately from the subsurface soils. 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 agency consultation period. The certificate holder shall use mulching and other appropriate practices to control erosion and sediment during construction and during revegetation work. The certificate holder shall select the seed mix to apply based on the pre-construction land use, as described below. In order to maximize flexibility for weed control, the seed mix shall consist of grasses only, with shrub seeding to occur through normal plant succession. The certificate holder shall consult with ODFW as described in Section 1 below regarding appropriate seeding or planting per site-specific restoration needs.

## **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.

### **(a) Broadcasting**

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. Apply weed-free straw from a certified field or sterile straw at a rate of two tons per acre 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 hydroseed equipment at a rate of 100 pounds per acre. Prior to mixing the tackifier, visually 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. Broadcasting should not be used if winds exceed five miles per hour.

### **(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

through the mulch provided the drill can penetrate the straw resulting in seed-to-soil contact conducive for germination.

#### **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.

#### **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 top-dressing for the area of disturbance.

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 lands. The certificate holder shall consult with ODFW, Gilliam County Weed Control Authority, the landowner, and the contractor to determine the appropriate seed mix and application rate for these areas based on the characteristics of the affected area. In order to maximize flexibility for weed control, the seed mix shall consist of grasses only, with shrub seedling to occur through 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 consider soil erosion potential, soil type, seed availability and the need for using native or native-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 complying 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.

#### **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 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.

- 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.
- 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.

## **VII. Monitoring**

### **1. Revegetation Record**

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 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 revegetation work began and a description of the work done within the affected area. The certificate holder shall report restoration activities to the Department for the first five years after the completion of facility construction. After five years, any restoration actions will be described in the annual report per OAR 345-026-0080(e).

### **2. Monitoring Procedures**

The certificate holder shall identify reference sites in consultation with ODFW. Reference sites shall be chosen to represent each of the native habitat types shown in Table 1 above: Grassland – Native perennial and Shrub-steppe – Sagebrush (big sage). 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. 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 with the success criteria. The certificate holder shall employ a qualified investigator (a botanist or revegetation specialist) to examine all noncropland 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.

#### Weed Control

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. 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.

#### Wildlife Habitat Recovery

After the first growing season following initial seeding (Year 1), a qualified investigator shall inspect each revegetation area to assess revegetation success based on the success criteria and to recommend remedial actions, if needed. The qualified investigator shall reinspect these areas annually for the first five years following the completion of construction. The certificate holder shall submit, electronically, to the Department and ODFW the investigator revegetation inspection report within 60 days following each inspection. The report shall include the investigator's assessment of whether the revegetated areas are trending toward meeting the success criteria; assessment of factors impacting the ability of the revegetated area to trend 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 remedial actions recommended.

The certificate holder shall confer with the Department and ODFW within 60 days of receipt of the investigator's inspection report 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 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 certificate holder or the Department may conclude that revegetation of the area was unsuccessful and propose appropriate mitigation for the permanent loss of habitat quality and quantity. The 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 area is trending toward meeting the success criteria by comparing the revegetation area to an approved reference area. In consultation with the Department and ODFW, prior to construction, the investigator shall choose reference sites near the revegetation area to represent the target 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 site conditions, including vegetation density, relative proportion of desirable vegetation and species diversity of desirable vegetation. "Desirable vegetation" means those species included in the seed mix or native or native-like species, excluding noxious weeds. The investigator shall consider land use patterns, soil type, local terrain, and noxious weed densities in selecting reference sites. It is likely that different reference sites will be needed to represent different pre-disturbance habitat conditions of the disturbed areas. Once reference sites are selected by the certificate holder and approved by the Department and ODFW, the reference site shall remain in

the same location unless approval for use of a differing reference site is obtained by the Department and ODFW. In the first six-month revegetation record report submitted to the Department, the certificate holder shall provide a map and table presenting the latitude and longitude of the reference sites.

During the initial five years of annual monitoring, the certificate holder's qualified investigator shall compare the revegetation area to the selected reference sites, unless some event (such as wildfire, tilling, or intensive livestock grazing) has changed the vegetation conditions of 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, in consultation with the Department and ODFW, shall select one or more new reference sites. Following the selection of a new reference site, an updated table and latitude/longitudinal data shall be provided to the Department within a six-month revegetation record report or annual 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.

### **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



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.

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.

#### **4. Remedial Action**

After each monitoring visit, the certificate holder's qualified investigator shall report to the certificate holder regarding the revegetation progress of each wildlife habitat area. The investigator shall make recommendations to the certificate holder for reseeding, weed control or other remedial measures for areas that are not showing progress toward achieving revegetation success based upon consultation with the Department, ODFW, the Gilliam County Weed Control 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 appropriate action to meet the objectives of this revegetation plan. Within 60 days of receipt of the investigator's monitoring report, the certificate holder shall report to the Department the investigator's recommendations and the remedial actions taken. The Department may require reseeding, weed control or other remedial measures in those areas that are not trending towards meeting the success criteria by year 5.

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.

#### **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**

# MITIGATION 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 2018~~ XX 2020



CH2M HILL Engineers, Inc.  
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## Appendix

### Noxious Weed Policy and Classification System 2017

#### Table

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# 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 acres of wildlife habitat and approximately 611 acres of cropland during road, transmission line, and wind turbine 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.

Table 1. Weed Species of Greatest Concern in Vicinity of Facility Site Boundary

| Common Name         | Scientific Name                   | Mapped in Facility Vicinity <sup>a</sup> | Observed 2009-2010 <sup>b</sup> | Observed 2017 <sup>c</sup> |
|---------------------|-----------------------------------|--|---------------------------------|----------------------------|
| <b>A List Weeds</b> |                                   |  |                                 |                            |
| Musk thistle        | <i>Carduus nutans</i>             | X  |                                 |                            |
| Rush skeletonweed   | <i>Chondrilla juncea</i>          | X  | X                               |                            |
| Spotted knapweed    | <i>Centaurea stoebe</i>           | X  |                                 |                            |
| Yellow starthistle  | <i>Centaurea solstitialis</i>     | X  |                                 |                            |
| <b>B List Weeds</b> |                                   |  |                                 |                            |
| <i>Dicots</i>       |                                   |  |                                 |                            |
| Bull thistle        | <i>Cirsium vulgare</i>            | X  |                                 |                            |
| Canada thistle      | <i>Cirsium arvense</i>            | X  |                                 |                            |
| Dalmation toadflax  | <i>Linaria dalmatica</i>          | X  |                                 |                            |
| Diffuse knapweed    | <i>Centaurea diffusa</i>          | X  |                                 | X                          |
| Field bindweed      | <i>Convolvulus arvensis</i>       |  | X                               | X                          |
| Knapweed            | <i>Centaurea sp.</i>              | X  |                                 | X                          |
| Kochia              | <i>Kochia (Bassia) sp.</i>        | X  |                                 |                            |
| Poison hemlock      | <i>Conium maculatum</i>           | X  |                                 |                            |
| Puncturevine        | <i>Tribulus terrestris</i>        | X  |                                 |                            |
| Russian knapweed    | <i>Acroptilon repens</i>          | X  |                                 |                            |
| Scotch thistle      | <i>Onopordum acanthium</i>        | X  |                                 |                            |
| Spikeweed           | <i>Hemozonia pungens</i>          | X  |                                 |                            |
| Whitetop            | <i>Cardaria draba</i>             | X  |                                 | X                          |
| <i>Monocots</i>     |                                   |  |                                 |                            |
| Jointed goatgrass   | <i>Aegilops cylindrica</i>        | X  | X                               | X                          |
| Medusahead rye      | <i>Taeniatherum caput-medusae</i> | X  | X                               | X                          |
| <b>T List Weeds</b> |                                   |  |                                 |                            |
| Dalmation Toadflax  | <i>Linaria dalmatica</i>          | X  |                                 |                            |
| Kochia              | <i>Kochia (Bassia) sp.</i>        | X  |                                 |                            |
| Rush skeletonweed   | <i>Chondrilla juncea</i>          | X  | X                               |                            |
| Puncturevine        | <i>Tribulus terrestris</i>        | X  |                                 |                            |
| Yellow starthistle  | <i>Centaurea solstitialis</i>     | X  |                                 |                            |

<sup>a</sup> Source: ODA, 2017b.

Table 1. Weed Species of Greatest Concern in Vicinity of Facility Site Boundary

| Common Name | Scientific Name | Mapped in Facility Vicinity <sup>a</sup> | Observed 2009-2010 <sup>b</sup> | Observed 2017 <sup>c</sup> |
|-------------|-----------------|--|---------------------------------|----------------------------|
|-------------|-----------------|--|---------------------------------|----------------------------|

<sup>b</sup> Sources:

CH2M HILL, 2010a. Field surveys conducted June 2010.

CH2M HILL, 2010b. Field surveys conducted October 2009 and February 2010.

<sup>c</sup> 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.

Table 2. Recommended Weed Treatments for Target Weed Species

| Weed Category | Common name        | Scientific Name               | Recommended Treatment  |
|---------------|--------------------|-------------------------------|--|
| Knapweeds     | Diffuse knapweed   | <i>Centaurea diffusa</i>      | Spot application of post-emergent, species-specific herbicide. |
|               | Spotted knapweed   | <i>Centaurea maculosa</i>     |  |
|               | Russian knapweed   | <i>Acroptilon repens</i>      |  |
|               | Yellow starthistle | <i>Centaurea solstitialis</i> |  |
| Thistles      | Bull thistle       | <i>Cirsium vulgare</i>        | Spot application of post-emergent, species-specific herbicide. |
|               | Creeping thistle   | <i>Cirsium arvense</i>        |  |
|               | Musk thistle       | <i>Carduus nutans</i>         |  |

Table 2. Recommended Weed Treatments for Target Weed Species

| Weed Category                    | Common name        | Scientific Name                   | Recommended Treatment  |
|----------------------------------|--------------------|-----------------------------------|--|
|                                  | Scotch thistle     | <i>Onopordum acanthium</i>        |  |
| Other Dicot (Broad-leaved) Weeds |                    |                                   |  |
|                                  | Dalmatian toadflax | <i>Linaria dalmatica</i>          | Spot application of post-emergent, species-specific herbicide. |
|                                  | Field bindweed     | <i>Convolvulus arvensis</i>       |  |
|                                  | Kochia             | <i>Kochia sp.</i>                 |  |
|                                  | Poison hemlock     | <i>Conium maculatum</i>           |  |
|                                  | Puncturevine       | <i>Tribulus terrestris</i>        |  |
|                                  | Spikeweed          | <i>Hemozonia pungens</i>          |  |
|                                  | Rush skeletonweed  | <i>Chondrilla juncea</i>          |  |
|                                  | Whitetop           | <i>Lepidium draba</i>             |  |
| Grasses                          |                    |                                   |  |
|                                  | Jointed goatgrass  | <i>Aegilops cylindrica</i>        | Spot application of post-emergent, species-specific herbicide. |
|                                  | Medusahead rye     | <i>Taeniatherum caput-medusae</i> |  |

### 3.3.2 Special Considerations

During treatment activities, Montague will consider the following sensitive areas:

- **Washington ground squirrel sites.** 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.
- **Ephemeral streams/draws.** 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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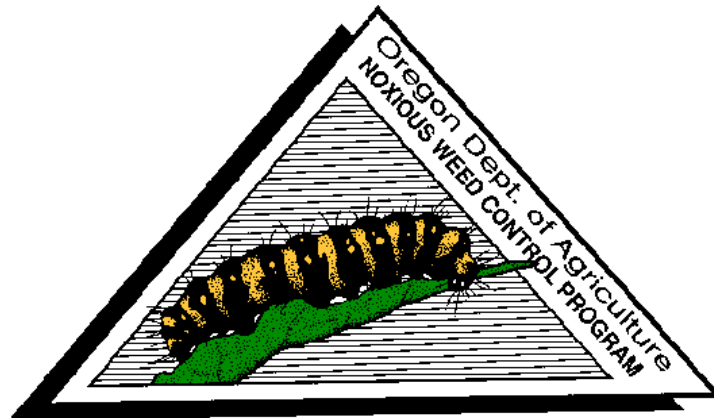
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Appendix  
Noxious Weed Policy and Classification  
System 2017

# 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](http://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.

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# Noxious Weed Control Policy and Classification System

## Definition

“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.

### Distribution

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.

Table I: A Listed Weeds

| Common Name                   | Scientific Name                            |
|-------------------------------|--|
| African rue (T)               | <i>Peganum harmala</i>                     |
| Cape-ivy (T)                  | <i>Delairea odorata</i>                    |
| Camelthorn                    | <i>Alhagi pseudalhagi</i>                  |
| Coltsfoot                     | <i>Tussilago farfara</i>                   |
| Cordgrass                     |  |
| Common (T)                    | <i>Spartina anglica</i>                    |
| Dense-flowered (T)            | <i>Spartina densiflora</i>                 |
| Saltmeadow (T)                | <i>Spartina patens</i>                     |
| Smooth (T)                    | <i>Spartina alterniflora</i>               |
| Common frogbit                | <i>Hydrocharis morsus-ranae</i>            |
| European water chestnut       | <i>Trapa natans</i>                        |
| Flowering rush (T)            | <i>Butomus umbellatus</i>                  |
| Garden yellow loosestrife (T) | <i>Lysimachia vulgaris</i>                 |
| Giant hogweed (T)             | <i>Heracleum mantegazzianum</i>            |
| Goatgrass                     |  |
| Barbed (T)                    | <i>Aegilops triuncialis</i>                |
| Ovate                         | <i>Aegilops ovata</i>                      |
| Goatsrue (T)                  | <i>Galega officinalis</i>                  |
| Hawkweed                      |  |
| King-devil                    | <i>Pilosella piloselloides</i> (Hieracium) |
| Mouse-ear (T)                 | <i>Pilosella pilosella</i> (Hieracium)     |
| Orange (T)                    | <i>Pilosella aurantiacum</i> (Hieracium)   |
| Yellow (T)                    | <i>Pilosella floribundum</i> (Hieracium)   |
| Hoary alyssum (T)             | <i>Berteroa incana</i>                     |
| Hydrilla                      | <i>Hydrilla verticillata</i>               |
| Japanese dodder               | <i>Cuscuta japonica</i>                    |
| Kudzu (T)                     | <i>Pueraria lobata</i>                     |
| Matgrass (T)                  | <i>Nardus stricta</i>                      |
| Oblong spurge (T)             | <i>Euphorbia oblongata</i>                 |
| Paterson's curse (T)          | <i>Echium plantagineum</i>                 |
| Purple nutsedge               | <i>Cyperus rotundus</i>                    |
| Ravennagrass (T)              | <i>Saccharum ravennae</i>                  |
| Silverleaf nightshade         | <i>Solanum elaeagnifolium</i>              |
| West Indian spongeplant       | <i>Limnobia laevigatum</i>                 |

(T) T Designated Weed (See page 4)

(Continued)

Table I: A Listed Weeds

| Common Name                  | Scientific Name                            |
|------------------------------|--|
| Squarrose knapweed (T)       | <i>Centaurea virgata</i>                   |
| Starthistle                  |  |
| Iberian (T)                  | <i>Centaurea iberica</i>                   |
| Purple (T)                   | <i>Centaurea calcitrapa</i>                |
| Syrian bean-caper            | <i>Zygophyllum fabago</i>                  |
| Thistle                      |  |
| Plumeless (T)                | <i>Carduus acanthoides</i>                 |
| Smooth distaff               | <i>Carthamus baeticus</i>                  |
| Taurian (T)                  | <i>Onopordum tauricum</i>                  |
| Wetted (Curly plumeless) (T) | <i>Carduus crispus</i>                     |
| Woolly distaff (T)           | <i>Carthamus lanatus</i>                   |
| Water soldiers               | <i>Stratiotes aloides</i>                  |
| White bryonia                | <i>Bryonia alba</i>                        |
| Yellow floating heart (T)    | <i>Nymphoides peltata</i>                  |
| Yellowtuft (T)               | <i>Alyssum murale</i> , <i>A. corsicum</i> |

(T) T Designated Weed (See page 4)

Table II: B Listed Weeds

| Common Name  | Scientific Name  |
|--|--|
| Armenian (Himalayan) blackberry                          | <i>Rubus armeniacus</i> ( <i>R. procerus</i> , <i>R. discolor</i> )  |
| Biddy-biddy  | <i>Acaena novae-zelandiae</i>  |
| Broom<br>French*<br>Portuguese (T)<br>Scotch*<br>Spanish | <i>Genista monspessulana</i><br><i>Cytisus striatus</i><br><i>Cytisus scoparius</i><br><i>Spartium junceum</i> |
| Buffalobur   | <i>Solanum rostratum</i>   |
| Butterfly bush   | <i>Buddleja davidii</i> ( <i>B. variabilis</i> )   |
| Common bugloss (T)                                       | <i>Anchusa officinalis</i>   |
| Common crupina   | <i>Crupina vulgaris</i>  |
| Common reed  | <i>Phragmites australis</i> ssp. <i>australis</i>  |
| Creeping yellow cress                                    | <i>Rorippa sylvestris</i>  |
| Cutleaf teasel   | <i>Dipsacus laciniatus</i>   |
| Dodder   | <i>Cuscuta</i> spp.  |
| Dyer's woad  | <i>Isatis tinctoria</i>  |
| Ivy<br>Atlantic<br>English                               | <i>Hedera hibernica</i><br><i>Hedera helix</i>   |
| Eurasian watermilfoil                                    | <i>Myriophyllum spicatum</i>   |
| False brome  | <i>Brachypodium sylvaticum</i>   |
| Field bindweed* (T)                                      | <i>Convolvulus arvensis</i>  |
| Garlic mustard (T)                                       | <i>Alliaria petiolata</i>  |
| Geranium<br>Herb Robert<br>Shiny leaf geranium           | <i>Geranium robertianum</i><br><i>Geranium lucidum</i>   |
| Gorse* (T)   | <i>Ulex europaeus</i>  |
| Halogeton  | <i>Halogeton glomeratus</i>  |
| Houndstongue   | <i>Cynoglossum officinale</i>  |
| Indigo bush  | <i>Amorpha fruticosa</i>   |
| Johnsongrass   | <i>Sorghum halepense</i>   |
| Jointed goatgrass  | <i>Aegilops cylindrica</i>   |
| Jubata grass   | <i>Cortaderia jubata</i>   |

\* Targeted for biocontrol

(T) T Designated Weed (See page 4)

(Continued)

Table II: B Listed Weeds

| Common Name              | Scientific Name                                    |
|--------------------------|--|
| Knapweed                 |  |
| Diffuse*                 | <i>Centaurea diffusa</i>                           |
| Meadow*                  | <i>Centaurea pratensis</i>                         |
| Russian*                 | <i>Acroptilon repens</i>                           |
| Spotted* (T)             | <i>Centaurea stoebe</i> ( <i>C. maculosa</i> )     |
| Knotweed                 |  |
| Giant                    | <i>Fallopia sachalinensis</i> ( <i>Polygonum</i> ) |
| Himalayan                | <i>Polygonum polystachyum</i>                      |
| Japanese                 | <i>Fallopia japonica</i> ( <i>Polygonum</i> )      |
| Kochia                   | <i>Kochia scoparia</i>                             |
| Lesser celandine         | <i>Ranunculus ficaria</i>                          |
| Meadow hawkweed (T)      | <i>Pilosella caespitosum</i> ( <i>Hieracium</i> )  |
| Mediterranean sage       | <i>Salvia aethiopis</i>                            |
| Medusahead rye           | <i>Taeniatherum caput-medusae</i>                  |
| Old man's beard          | <i>Clematis vitalba</i>                            |
| Parrot feather           | <i>Myriophyllum aquaticum</i>                      |
| Perennial peavine        | <i>Lathyrus latifolius</i>                         |
| Perennial pepperweed (T) | <i>Lepidium latifolium</i>                         |
| Pheasant's eye           | <i>Adonis aestivalis</i>                           |
| Poison hemlock           | <i>Conium maculatum</i>                            |
| Policeman's helmet       | <i>Impatiens glandulifera</i>                      |
| Puncturevine*            | <i>Tribulus terrestris</i>                         |
| Purple loosestrife*      | <i>Lythrum salicaria</i>                           |
| Ragweed                  | <i>Ambrosia artemisiifolia</i>                     |
| Ribongrass (T)           | <i>Phalaris arundinacea</i> var. <i>Picta</i>      |
| Rush skeletonweed* (T)   | <i>Chondrilla juncea</i>                           |
| Saltcedar* (T)           | <i>Tamarix ramosissima</i>                         |
| Small broomrape          | <i>Orbanche minor</i>                              |
| South American waterweed | <i>Egeria densa</i> ( <i>Elodea</i> )              |
| Spanish heath            | <i>Erica lusitanica</i>                            |
| Spikeweed                | <i>Hemizonia pungens</i>                           |
| Spiny cocklebur          | <i>Xanthium spinosum</i>                           |
| Spurge laurel            | <i>Daphne laureola</i>                             |

\* Targeted for biocontrol

(T) T Designated Weed (See page 4)

(Continued)

Table II: B Listed Weeds

| Common Name            | Scientific Name                                      |
|------------------------|--|
| Spurge                 |  |
| Leafy* (T)             | <i>Euphorbia esula</i>                               |
| Myrtle                 | <i>Euphorbia myrsinites</i>                          |
| St. Johnswort*         | <i>Hypericum perforatum</i>                          |
| Sulfur cinquefoil      | <i>Potentilla recta</i>                              |
| Swainsonpea            | <i>Sphaerophysa salsula</i>                          |
| Tansy ragwort* (T)     | <i>Senecio jacobaea</i> ( <i>Jacobaea vulgaris</i> ) |
| Thistle                |  |
| Bull*                  | <i>Cirsium vulgare</i>                               |
| Canada*                | <i>Cirsium arvense</i>                               |
| Italian                | <i>Carduus pycnocephalus</i>                         |
| Milk*                  | <i>Silybum marianum</i>                              |
| Musk*                  | <i>Carduus nutans</i>                                |
| Scotch                 | <i>Onopordum acanthium</i>                           |
| Slender-flowered*      | <i>Carduus tenuiflorus</i>                           |
| Toadflax               |  |
| Dalmatian* (T)         | <i>Linaria dalmatica</i>                             |
| Yellow*                | <i>Linaria vulgaris</i>                              |
| Tree of heaven         | <i>Ailanthus altissima</i>                           |
| Velvetleaf             | <i>Abutilon theophrasti</i>                          |
| Primrose Willow        |  |
| Large-flower (T)       | <i>Ludwigia grandiflora</i>                          |
| Floating (T)           | <i>Ludwigia hexapetala</i>                           |
| Water primrose (T)     | <i>Ludwigia peploides</i>                            |
| Whitetop               |  |
| Hairy                  | <i>Lepidium pubescens</i>                            |
| Lens-podded            | <i>Lepidium chalepensis</i>                          |
| Whitetop (hoary cress) | <i>Lepidium draba</i>                                |
| Yellow archangel       | <i>Lamiastrum galeobdolon</i>                        |
| Yellow flag iris       | <i>Iris pseudacorus</i>                              |
| Yellow nutsedge        | <i>Cyperus esculentus</i>                            |
| Yellow starthistle*    | <i>Centaurea solstitialis</i>                        |

\* Targeted for biocontrol

(T) T Designated Weed (See page 4)





# **Oregon**

Department  
of Agriculture

Created 3/2017

## ESTERSON Sarah \* ODOE

---

**From:** Hicks, Paul/PDX <Paul.Hicks@jacobs.com>  
**Sent:** Tuesday, July 10, 2018 9:11 AM  
**To:** 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](mailto:paul.hicks@ch2m.com) | [www.jacobs.com](http://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](mailto: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

XXXXXXXXXX  
XXXXXXXXXX  
[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 <[don.farrar@co.gilliam.or.us](mailto:don.farrar@co.gilliam.or.us)>  
**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

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---

**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](mailto:don.farrar@co.gilliam.or.us)

**Cc:** Hutchinson, Matthew <[matthew.hutchinson@avangrid.com](mailto:matthew.hutchinson@avangrid.com)>; Eng, Linnea/SEA <[Linnea.Eng@CH2M.com](mailto:Linnea.Eng@CH2M.com)>

**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

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---

**From:** O'Neill, Peggy/PDX

**Sent:** Tuesday, November 28, 2017 3:37 PM

**To:** 'don.farrar@co.gilliam.or.us' <[don.farrar@co.gilliam.or.us](mailto:don.farrar@co.gilliam.or.us)>

**Cc:** 'Hutchinson, Matthew' <[matthew.hutchinson@avangrid.com](mailto:matthew.hutchinson@avangrid.com)>; Eng, Linnea/SEA <[Linnea.Eng@CH2M.com](mailto:Linnea.Eng@CH2M.com)>

**Subject:** Montague Wind Project - Weed Management Plan

Hello, Don

## **Draft Montague Solar Facility Weed Control Plan**

# MITIGATION PLAN

## Weed Control Plan Montague ~~Wind Power~~Solar Facility ~~— Phase 1~~

*Prepared for*

Avangrid Renewables, LLC

d/b/a Montague ~~Wind Power~~  
~~Facility~~Solar, LLC Arlington, Oregon

~~February 2018~~XX 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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# Acronyms and Abbreviations

CH2M/CH2M HILL CH2M HILL Engineers, Inc.

Facility Montague Wind Power Facility

Montague Montague ~~Wind Power Facility~~Solar, LLC

# 1.0 Introduction

Montague ~~Wind Power Facility~~Solar, LLC (Montague) holds a Site Certificate from the Oregon Energy Facility Siting Council for the Montague ~~Wind Power~~Solar 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 acres of wildlife habitat and approximately 611 acres of cropland during road, transmission line, and wind turbine 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.

Table 1. Weed Species of Greatest Concern in Vicinity of Facility Site Boundary

| Common Name         | Scientific Name                   | Mapped in Facility Vicinity <sup>a</sup> | Observed 2009-2010 <sup>b</sup> | Observed 2017 <sup>c</sup> |
|---------------------|-----------------------------------|--|---------------------------------|----------------------------|
| <b>A List Weeds</b> |                                   |  |                                 |                            |
| Musk thistle        | <i>Carduus nutans</i>             | X  |                                 |                            |
| Rush skeletonweed   | <i>Chondrilla juncea</i>          | X  | X                               |                            |
| Spotted knapweed    | <i>Centaurea stoebe</i>           | X  |                                 |                            |
| Yellow starthistle  | <i>Centaurea solstitialis</i>     | X  |                                 |                            |
| <b>B List Weeds</b> |                                   |  |                                 |                            |
| <i>Dicots</i>       |                                   |  |                                 |                            |
| Bull thistle        | <i>Cirsium vulgare</i>            | X  |                                 |                            |
| Canada thistle      | <i>Cirsium arvense</i>            | X  |                                 |                            |
| Dalmation toadflax  | <i>Linaria dalmatica</i>          | X  |                                 |                            |
| Diffuse knapweed    | <i>Centaurea diffusa</i>          | X  |                                 | X                          |
| Field bindweed      | <i>Convolvulus arvensis</i>       |  | X                               | X                          |
| Knapweed            | <i>Centaurea sp.</i>              | X  |                                 | X                          |
| Kochia              | <i>Kochia (Bassia) sp.</i>        | X  |                                 |                            |
| Poison hemlock      | <i>Conium maculatum</i>           | X  |                                 |                            |
| Puncturevine        | <i>Tribulus terrestris</i>        | X  |                                 |                            |
| Russian knapweed    | <i>Acroptilon repens</i>          | X  |                                 |                            |
| Scotch thistle      | <i>Onopordum acanthium</i>        | X  |                                 |                            |
| Spikeweed           | <i>Hemozonia pungens</i>          | X  |                                 |                            |
| Whitetop            | <i>Cardaria draba</i>             | X  |                                 | X                          |
| <i>Monocots</i>     |                                   |  |                                 |                            |
| Jointed goatgrass   | <i>Aegilops cylindrica</i>        | X  | X                               | X                          |
| Medusahead rye      | <i>Taeniatherum caput-medusae</i> | X  | X                               | X                          |
| <b>T List Weeds</b> |                                   |  |                                 |                            |
| Dalmation Toadflax  | <i>Linaria dalmatica</i>          | X  |                                 |                            |
| Kochia              | <i>Kochia (Bassia) sp.</i>        | X  |                                 |                            |
| Rush skeletonweed   | <i>Chondrilla juncea</i>          | X  | X                               |                            |
| Puncturevine        | <i>Tribulus terrestris</i>        | X  |                                 |                            |
| Yellow starthistle  | <i>Centaurea solstitialis</i>     | X  |                                 |                            |

<sup>a</sup> Source: ODA, 2017b.

Table 1. Weed Species of Greatest Concern in Vicinity of Facility Site Boundary

| Common Name | Scientific Name | Mapped in Facility Vicinity <sup>a</sup> | Observed 2009-2010 <sup>b</sup> | Observed 2017 <sup>c</sup> |
|-------------|-----------------|--|---------------------------------|----------------------------|
|-------------|-----------------|--|---------------------------------|----------------------------|

<sup>b</sup> Sources:

CH2M HILL, 2010a. Field surveys conducted June 2010.

CH2M HILL, 2010b. Field surveys conducted October 2009 and February 2010.

<sup>c</sup> 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.

Table 2. Recommended Weed Treatments for Target Weed Species

| Weed Category | Common name        | Scientific Name               | Recommended Treatment  |
|---------------|--------------------|-------------------------------|--|
| Knapweeds     | Diffuse knapweed   | <i>Centaurea diffusa</i>      | Spot application of post-emergent, species-specific herbicide. |
|               | Spotted knapweed   | <i>Centaurea maculosa</i>     |  |
|               | Russian knapweed   | <i>Acroptilon repens</i>      |  |
|               | Yellow starthistle | <i>Centaurea solstitialis</i> |  |
| Thistles      | Bull thistle       | <i>Cirsium vulgare</i>        | Spot application of post-emergent, species-specific herbicide. |
|               | Creeping thistle   | <i>Cirsium arvense</i>        |  |
|               | Musk thistle       | <i>Carduus nutans</i>         |  |

Table 2. Recommended Weed Treatments for Target Weed Species

| Weed Category                    | Common name        | Scientific Name                   | Recommended Treatment  |
|----------------------------------|--------------------|-----------------------------------|--|
|                                  | Scotch thistle     | <i>Onopordum acanthium</i>        |  |
| Other Dicot (Broad-leaved) Weeds |                    |                                   |  |
|                                  | Dalmatian toadflax | <i>Linaria dalmatica</i>          | Spot application of post-emergent, species-specific herbicide. |
|                                  | Field bindweed     | <i>Convolvulus arvensis</i>       |  |
|                                  | Kochia             | <i>Kochia sp.</i>                 |  |
|                                  | Poison hemlock     | <i>Conium maculatum</i>           |  |
|                                  | Puncturevine       | <i>Tribulus terrestris</i>        |  |
|                                  | Spikeweed          | <i>Hemozonia pungens</i>          |  |
|                                  | Rush skeletonweed  | <i>Chondrilla juncea</i>          |  |
|                                  | Whitetop           | <i>Lepidium draba</i>             |  |
| Grasses                          |                    |                                   |  |
|                                  | Jointed goatgrass  | <i>Aegilops cylindrica</i>        | Spot application of post-emergent, species-specific herbicide. |
|                                  | Medusahead rye     | <i>Taeniatherum caput-medusae</i> |  |

### 3.3.2 Special Considerations

During treatment activities, Montague will consider the following sensitive areas:

- **Washington ground squirrel sites.** 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.
- **Ephemeral streams/draws.** 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.*

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HDR Engineering, Inc. 2017. *Wetlands and Water Bodies Delineation, Montague Wind Power Facility.* Prepared for Avangrid Renewables. July 10.

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>.

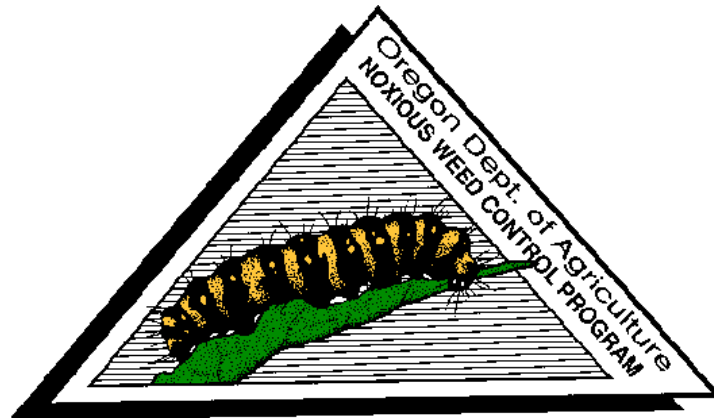
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Appendix  
Noxious Weed Policy and Classification  
System 2017



# 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](http://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  
[tbutler@oda.state.or.us](mailto:tbutler@oda.state.or.us)  
503-986-4621

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# Noxious Weed Control Policy and Classification System

## Definition

“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.

### Distribution

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.

Table I: A Listed Weeds

| Common Name                   | Scientific Name                            |
|-------------------------------|--|
| African rue (T)               | <i>Peganum harmala</i>                     |
| Cape-ivy (T)                  | <i>Delairea odorata</i>                    |
| Camelthorn                    | <i>Alhagi pseudalhagi</i>                  |
| Coltsfoot                     | <i>Tussilago farfara</i>                   |
| Cordgrass                     |  |
| Common (T)                    | <i>Spartina anglica</i>                    |
| Dense-flowered (T)            | <i>Spartina densiflora</i>                 |
| Saltmeadow (T)                | <i>Spartina patens</i>                     |
| Smooth (T)                    | <i>Spartina alterniflora</i>               |
| Common frogbit                | <i>Hydrocharis morsus-ranae</i>            |
| European water chestnut       | <i>Trapa natans</i>                        |
| Flowering rush (T)            | <i>Butomus umbellatus</i>                  |
| Garden yellow loosestrife (T) | <i>Lysimachia vulgaris</i>                 |
| Giant hogweed (T)             | <i>Heracleum mantegazzianum</i>            |
| Goatgrass                     |  |
| Barbed (T)                    | <i>Aegilops triuncialis</i>                |
| Ovate                         | <i>Aegilops ovata</i>                      |
| Goatsrue (T)                  | <i>Galega officinalis</i>                  |
| Hawkweed                      |  |
| King-devil                    | <i>Pilosella piloselloides</i> (Hieracium) |
| Mouse-ear (T)                 | <i>Pilosella pilosella</i> (Hieracium)     |
| Orange (T)                    | <i>Pilosella aurantiacum</i> (Hieracium)   |
| Yellow (T)                    | <i>Pilosella floribundum</i> (Hieracium)   |
| Hoary alyssum (T)             | <i>Berteroa incana</i>                     |
| Hydrilla                      | <i>Hydrilla verticillata</i>               |
| Japanese dodder               | <i>Cuscuta japonica</i>                    |
| Kudzu (T)                     | <i>Pueraria lobata</i>                     |
| Matgrass (T)                  | <i>Nardus stricta</i>                      |
| Oblong spurge (T)             | <i>Euphorbia oblongata</i>                 |
| Paterson's curse (T)          | <i>Echium plantagineum</i>                 |
| Purple nutsedge               | <i>Cyperus rotundus</i>                    |
| Ravennagrass (T)              | <i>Saccharum ravennae</i>                  |
| Silverleaf nightshade         | <i>Solanum elaeagnifolium</i>              |
| West Indian spongeplant       | <i>Limnobium laevigatum</i>                |

(T) T Designated Weed (See page 4)



(Continued)

Table I: A Listed Weeds

| Common Name                  | Scientific Name                            |
|------------------------------|--|
| Squarrose knapweed (T)       | <i>Centaurea virgata</i>                   |
| Starthistle                  |  |
| Iberian (T)                  | <i>Centaurea iberica</i>                   |
| Purple (T)                   | <i>Centaurea calcitrapa</i>                |
| Syrian bean-caper            | <i>Zygophyllum fabago</i>                  |
| Thistle                      |  |
| Plumeless (T)                | <i>Carduus acanthoides</i>                 |
| Smooth distaff               | <i>Carthamus baeticus</i>                  |
| Taurian (T)                  | <i>Onopordum tauricum</i>                  |
| Wetted (Curly plumeless) (T) | <i>Carduus crispus</i>                     |
| Woolly distaff (T)           | <i>Carthamus lanatus</i>                   |
| Water soldiers               | <i>Stratiotes aloides</i>                  |
| White bryonia                | <i>Bryonia alba</i>                        |
| Yellow floating heart (T)    | <i>Nymphoides peltata</i>                  |
| Yellowtuft (T)               | <i>Alyssum murale</i> , <i>A. corsicum</i> |

(T) T Designated Weed (See page 4)

Table II: B Listed Weeds

| Common Name  | Scientific Name  |
|--|--|
| Armenian (Himalayan) blackberry                          | <i>Rubus armeniacus</i> ( <i>R. procerus</i> , <i>R. discolor</i> )  |
| Biddy-biddy  | <i>Acaena novae-zelandiae</i>  |
| Broom<br>French*<br>Portuguese (T)<br>Scotch*<br>Spanish | <i>Genista monspessulana</i><br><i>Cytisus striatus</i><br><i>Cytisus scoparius</i><br><i>Spartium junceum</i> |
| Buffalobur   | <i>Solanum rostratum</i>   |
| Butterfly bush   | <i>Buddleja davidii</i> ( <i>B. variabilis</i> )   |
| Common bugloss (T)                                       | <i>Anchusa officinalis</i>   |
| Common crupina   | <i>Crupina vulgaris</i>  |
| Common reed  | <i>Phragmites australis</i> ssp. <i>australis</i>  |
| Creeping yellow cress                                    | <i>Rorippa sylvestris</i>  |
| Cutleaf teasel   | <i>Dipsacus laciniatus</i>   |
| Dodder   | <i>Cuscuta</i> spp.  |
| Dyer's woad  | <i>Isatis tinctoria</i>  |
| Ivy<br>Atlantic<br>English                               | <i>Hedera hibernica</i><br><i>Hedera helix</i>   |
| Eurasian watermilfoil                                    | <i>Myriophyllum spicatum</i>   |
| False brome  | <i>Brachypodium sylvaticum</i>   |
| Field bindweed* (T)                                      | <i>Convolvulus arvensis</i>  |
| Garlic mustard (T)                                       | <i>Alliaria petiolata</i>  |
| Geranium<br>Herb Robert<br>Shiny leaf geranium           | <i>Geranium robertianum</i><br><i>Geranium lucidum</i>   |
| Gorse* (T)   | <i>Ulex europaeus</i>  |
| Halogeton  | <i>Halogeton glomeratus</i>  |
| Houndstongue   | <i>Cynoglossum officinale</i>  |
| Indigo bush  | <i>Amorpha fruticosa</i>   |
| Johnsongrass   | <i>Sorghum halepense</i>   |
| Jointed goatgrass  | <i>Aegilops cylindrica</i>   |
| Jubata grass   | <i>Cortaderia jubata</i>   |

\* Targeted for biocontrol

(T) T Designated Weed (See page 4)

(Continued)

Table II: B Listed Weeds

| Common Name              | Scientific Name                                    |
|--------------------------|--|
| Knapweed                 |  |
| Diffuse*                 | <i>Centaurea diffusa</i>                           |
| Meadow*                  | <i>Centaurea pratensis</i>                         |
| Russian*                 | <i>Acroptilon repens</i>                           |
| Spotted* (T)             | <i>Centaurea stoebe</i> ( <i>C. maculosa</i> )     |
| Knotweed                 |  |
| Giant                    | <i>Fallopia sachalinensis</i> ( <i>Polygonum</i> ) |
| Himalayan                | <i>Polygonum polystachyum</i>                      |
| Japanese                 | <i>Fallopia japonica</i> ( <i>Polygonum</i> )      |
| Kochia                   | <i>Kochia scoparia</i>                             |
| Lesser celandine         | <i>Ranunculus ficaria</i>                          |
| Meadow hawkweed (T)      | <i>Pilosella caespitosum</i> ( <i>Hieracium</i> )  |
| Mediterranean sage       | <i>Salvia aethiopis</i>                            |
| Medusahead rye           | <i>Taeniatherum caput-medusae</i>                  |
| Old man's beard          | <i>Clematis vitalba</i>                            |
| Parrot feather           | <i>Myriophyllum aquaticum</i>                      |
| Perennial peavine        | <i>Lathyrus latifolius</i>                         |
| Perennial pepperweed (T) | <i>Lepidium latifolium</i>                         |
| Pheasant's eye           | <i>Adonis aestivalis</i>                           |
| Poison hemlock           | <i>Conium maculatum</i>                            |
| Policeman's helmet       | <i>Impatiens glandulifera</i>                      |
| Puncturevine*            | <i>Tribulus terrestris</i>                         |
| Purple loosestrife*      | <i>Lythrum salicaria</i>                           |
| Ragweed                  | <i>Ambrosia artemisiifolia</i>                     |
| Ribongrass (T)           | <i>Phalaris arundinacea</i> var. <i>Picta</i>      |
| Rush skeletonweed* (T)   | <i>Chondrilla juncea</i>                           |
| Saltcedar* (T)           | <i>Tamarix ramosissima</i>                         |
| Small broomrape          | <i>Orbanche minor</i>                              |
| South American waterweed | <i>Egeria densa</i> ( <i>Elodea</i> )              |
| Spanish heath            | <i>Erica lusitanica</i>                            |
| Spikeweed                | <i>Hemizonia pungens</i>                           |
| Spiny cocklebur          | <i>Xanthium spinosum</i>                           |
| Spurge laurel            | <i>Daphne laureola</i>                             |

\* Targeted for biocontrol

(T) T Designated Weed (See page 4)

(Continued)

Table II: B Listed Weeds

| Common Name            | Scientific Name                                      |
|------------------------|--|
| Spurge                 |  |
| Leafy* (T)             | <i>Euphorbia esula</i>                               |
| Myrtle                 | <i>Euphorbia myrsinites</i>                          |
| St. Johnswort*         | <i>Hypericum perforatum</i>                          |
| Sulfur cinquefoil      | <i>Potentilla recta</i>                              |
| Swainsonpea            | <i>Sphaerophysa salsula</i>                          |
| Tansy ragwort* (T)     | <i>Senecio jacobaea</i> ( <i>Jacobaea vulgaris</i> ) |
| Thistle                |  |
| Bull*                  | <i>Cirsium vulgare</i>                               |
| Canada*                | <i>Cirsium arvense</i>                               |
| Italian                | <i>Carduus pycnocephalus</i>                         |
| Milk*                  | <i>Silybum marianum</i>                              |
| Musk*                  | <i>Carduus nutans</i>                                |
| Scotch                 | <i>Onopordum acanthium</i>                           |
| Slender-flowered*      | <i>Carduus tenuiflorus</i>                           |
| Toadflax               |  |
| Dalmatian* (T)         | <i>Linaria dalmatica</i>                             |
| Yellow*                | <i>Linaria vulgaris</i>                              |
| Tree of heaven         | <i>Ailanthus altissima</i>                           |
| Velvetleaf             | <i>Abutilon theophrasti</i>                          |
| Primrose Willow        |  |
| Large-flower (T)       | <i>Ludwigia grandiflora</i>                          |
| Floating (T)           | <i>Ludwigia hexapetala</i>                           |
| Water primrose (T)     | <i>Ludwigia peploides</i>                            |
| Whitetop               |  |
| Hairy                  | <i>Lepidium pubescens</i>                            |
| Lens-podded            | <i>Lepidium chalepensis</i>                          |
| Whitetop (hoary cress) | <i>Lepidium draba</i>                                |
| Yellow archangel       | <i>Lamiastrum galeobdolon</i>                        |
| Yellow flag iris       | <i>Iris pseudacorus</i>                              |
| Yellow nutsedge        | <i>Cyperus esculentus</i>                            |
| Yellow starthistle*    | <i>Centaurea solstitialis</i>                        |

\* Targeted for biocontrol

(T) T Designated Weed (See page 4)



# Oregon

Department  
of Agriculture

## ESTERSON Sarah \* ODOE

---

**From:** Hicks, Paul/PDX <Paul.Hicks@jacobs.com>  
**Sent:** Tuesday, July 10, 2018 9:11 AM  
**To:** 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](mailto:paul.hicks@ch2m.com) | [www.jacobs.com](http://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

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---

**From:** Don Farrar <[don.farrar@co.gilliam.or.us](mailto: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

XXXXXXXXXX  
XXXXXXXXXX  
[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 <[don.farrar@co.gilliam.or.us](mailto:don.farrar@co.gilliam.or.us)>  
**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

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---

**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](mailto:don.farrar@co.gilliam.or.us)

**Cc:** Hutchinson, Matthew <[matthew.hutchinson@avangrid.com](mailto:matthew.hutchinson@avangrid.com)>; Eng, Linnea/SEA <[Linnea.Eng@CH2M.com](mailto:Linnea.Eng@CH2M.com)>

**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

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**From:** O'Neill, Peggy/PDX

**Sent:** Tuesday, November 28, 2017 3:37 PM

**To:** 'don.farrar@co.gilliam.or.us' <[don.farrar@co.gilliam.or.us](mailto:don.farrar@co.gilliam.or.us)>

**Cc:** 'Hutchinson, Matthew' <[matthew.hutchinson@avangrid.com](mailto:matthew.hutchinson@avangrid.com)>; Eng, Linnea/SEA <[Linnea.Eng@CH2M.com](mailto:Linnea.Eng@CH2M.com)>

**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.

**Table 1. Weed Species of Greatest Concern in Vicinity of Oregon Trail Solar Site Boundary**

| Common Name         | Scientific Name                   | Mapped in Facility Vicinity <sup>a</sup> | Observed 2009-2010 <sup>b</sup> | Observed 2017-2018 <sup>c</sup> |
|---------------------|-----------------------------------|--|---------------------------------|---------------------------------|
| <b>A List Weeds</b> |                                   |  |                                 |                                 |
| Musk thistle        | <i>Carduus nutans</i>             | X  |                                 |                                 |
| Rush skeletonweed   | <i>Chondrilla juncea</i>          | X  | X                               | X                               |
| Spotted knapweed    | <i>Centaurea stoebe</i>           | X  |                                 |                                 |
| Yellow starthistle  | <i>Centaurea solstitialis</i>     | X  |                                 |                                 |
| <b>B List Weeds</b> |                                   |  |                                 |                                 |
| <i>Dicots</i>       |                                   |  |                                 |                                 |
| Bull thistle        | <i>Cirsium vulgare</i>            | X  |                                 |                                 |
| Canada thistle      | <i>Cirsium arvense</i>            | X  |                                 |                                 |
| Dalmation toadflax  | <i>Linaria dalmatica</i>          | X  |                                 |                                 |
| Diffuse knapweed    | <i>Centaurea diffusa</i>          | X  |                                 | X                               |
| Field bindweed      | <i>Convolvulus arvensis</i>       |  | X                               | X                               |
| Knapweed            | <i>Centaurea sp.</i>              | X  |                                 | X                               |
| Kochia              | <i>Kochia (Bassia) sp.</i>        | X  |                                 |                                 |
| Poison hemlock      | <i>Conium maculatum</i>           | X  |                                 |                                 |
| Puncturevine        | <i>Tribulus terrestris</i>        | X  |                                 |                                 |
| Russian knapweed    | <i>Acroptilon repens</i>          | X  |                                 |                                 |
| Scotch thistle      | <i>Onopordum acanthium</i>        | X  |                                 |                                 |
| Spikeweed           | <i>Hemizonia pungens</i>          | X  |                                 |                                 |
| Whitetop            | <i>Cardaria draba</i>             | X  |                                 | X                               |
| <i>Monocots</i>     |                                   |  |                                 |                                 |
| Jointed goatgrass   | <i>Aegilops cylindrica</i>        | X  | X                               | X                               |
| Medusahead rye      | <i>Taeniatherum caput-medusae</i> | X  | X                               | X                               |
| <b>T List Weeds</b> |                                   |  |                                 |                                 |
| Dalmation Toadflax  | <i>Linaria dalmatica</i>          | X  |                                 |                                 |
| Kochia              | <i>Kochia (Bassia) sp.</i>        | X  |                                 |                                 |
| Rush skeletonweed   | <i>Chondrilla juncea</i>          | X  | X                               |                                 |
| Puncturevine        | <i>Tribulus terrestris</i>        | X  |                                 |                                 |
| Yellow starthistle  | <i>Centaurea solstitialis</i>     | X  |                                 |                                 |

<sup>a</sup> Source: ODA, 2020.

<sup>b</sup> Sources:

CH2M HILL, 2010a. Field surveys conducted June 2010.

CH2M HILL, 2010b. Field surveys conducted October 2009 and February 2010.

<sup>c</sup> 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 Vicinity <sup>a</sup> | Observed 2009-2010 <sup>b</sup> | Observed 2017-2018 <sup>c</sup> |
|-------------|-----------------|--|---------------------------------|---------------------------------|
|-------------|-----------------|--|---------------------------------|---------------------------------|

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.

**Table 2. Recommended Weed Treatments for Target Weed Species**

| Weed Category                    | Common Name        | Scientific Name                   | Recommended Treatment  |
|----------------------------------|--------------------|-----------------------------------|--|
| Knapweeds                        |                    |                                   |  |
|                                  | Diffuse knapweed   | <i>Centaurea diffusa</i>          | Spot application of post-emergent, species-specific herbicide. |
|                                  | Spotted knapweed   | <i>Centaurea maculosa</i>         |  |
|                                  | Russian knapweed   | <i>Acroptilon repens</i>          |  |
|                                  | Yellow starthistle | <i>Centaurea solstitialis</i>     |  |
| Thistles                         |                    |                                   |  |
|                                  | Bull thistle       | <i>Cirsium vulgare</i>            | Spot application of post-emergent, species-specific herbicide. |
|                                  | Creeping thistle   | <i>Cirsium arvense</i>            |  |
|                                  | Musk thistle       | <i>Carduus nutans</i>             |  |
|                                  | Scotch thistle     | <i>Onopordum acanthium</i>        |  |
| Other Dicot (Broad-leaved) Weeds |                    |                                   |  |
|                                  | Dalmatian toadflax | <i>Linaria dalmatica</i>          | Spot application of post-emergent, species-specific herbicide. |
|                                  | Field bindweed     | <i>Convolvulus arvensis</i>       |  |
|                                  | Kochia             | <i>Kochia</i> sp.                 |  |
|                                  | Poison hemlock     | <i>Conium maculatum</i>           |  |
|                                  | Puncturevine       | <i>Tribulus terrestris</i>        |  |
|                                  | Spikeweed          | <i>Hemozonia pungens</i>          |  |
|                                  | Rush skeletonweed  | <i>Chondrilla juncea</i>          |  |
|                                  | Whitetop           | <i>Lepidium draba</i>             |  |
| Grasses                          |                    |                                   |  |
|                                  | Jointed goatgrass  | <i>Aegilops cylindrica</i>        | Spot application of post-emergent, species-specific herbicide. |
|                                  | Medusahead rye     | <i>Taeniatherum caput-medusae</i> |  |

### 3.3.2 Special Considerations

During treatment activities, Oregon Trail Solar will consider the following sensitive areas:

- **Washington ground squirrel sites**. 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.
- **Ephemeral streams/draws**. 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

CH2M HILL. 2010a. *Rare Plant Survey Report, Montague Wind Power Facility, Gilliam County, Oregon*.

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CH2M. 2017a. *2017 Rare Plant Surveys for Montague Wind Power Facility – Phase 1*.

CH2M. 2017b. *2017 Washington Ground Squirrel Surveys and Habitat Mapping for Montague Wind Power Facility – Phase 1*.

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HDR Engineering, Inc. 2017. *Wetlands and Water Bodies Delineation, Montague Wind Power Facility*. Prepared for Avangrid Renewables. July 10.

Montague Wind Power Facility, LLC (Montague). 2019. *Montague Wind Power Facility: Revegetation Plan*. December.

Oregon Department of Agriculture (ODA). 2019. *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). 2020. *Weed Mapper*.

<http://www.oregon.gov/ODA/programs/Weeds/Pages/WeedMapper.aspx>

**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**



# Montague Wind Power Facility: ~~Phase 2~~ Wildlife Monitoring and Mitigation Plan

[AS AMENDED ~~JANUARY 2018~~XX 2020]

This plan describes wildlife monitoring that the certificate holder shall conduct during operation of ~~Phase 2 of~~ the Montague Wind Power Facility (MWPF).<sup>1</sup> 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 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.

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.

The *Wildlife Monitoring and Mitigation Plan* for the MWPF has the following components:

1) Fatality monitoring program including:

- a) Definitions and methods
- b) Removal trials
- c) Searcher efficiency trials
- d) Fatality monitoring search protocol
- e) Incidental finds and injured birds
- f) Statistical methods for fatality estimates

<sup>1</sup> 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.

# Montague Wind Power Facility: ~~Phase 2~~ Wildlife Monitoring and Mitigation Plan

[AS AMENDED ~~JANUARY 2018~~ **XX 2020**]

## g) Mitigation

2) Raptor nesting surveys

3) Washington ground squirrel surveys

4) Wildlife Reporting and Handling System

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).

## 1. Fatality Monitoring

### (a) Definitions and Methods

#### Seasons

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  |

#### Search Plots

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 plots will be centered on the turbine location and will have a radius equal to the maximum blade tip height of the turbine contained within the plot. "Maximum blade tip height" is the turbine hub-height plus one-half the rotor diameter. Square search plots will be of sufficient size to contain a circular search plot as described above. The certificate holder shall use the same search plots for each search conducted during a monitoring year.

#### Scheduling

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:

## Montague Wind Power Facility: ~~Phase 2~~ Wildlife Monitoring and Mitigation Plan

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| 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)   |

### Sample Size

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 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 constructed in two phases (Phases 1 and 2). Phase 1 will be completed in advance of Phase 2. 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 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:

- 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 holder shall consult with an independent expert with experience in statistical analysis of avian fatality data to determine whether it would be possible to design a turbine sample with a sufficient number of turbines in each size class to allow a statistical comparison of fatality rates for all birds as a group. The certificate holder shall submit the expert's written analysis to the 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 each class and conduct the comparison study. The certificate holder may choose to sample more than 50 turbines in each monitoring year, if a larger sample size would allow the comparison study to be done.

### 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 completed a full year of monitoring.~~ As a result of the construction schedule, monitoring of

## Montague Wind Power Facility: ~~Phase 2~~ Wildlife Monitoring and Mitigation Plan

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turbines at the facility will continue without interruption for longer than one full year and possibly 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.~~

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:

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.~~

-or-

~~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).~~

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.

### (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 15 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.

## Montague Wind Power Facility: ~~Phase 2~~ Wildlife Monitoring and Mitigation Plan

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1 The investigators shall use game birds or other legal sources of avian species as test  
2 carcasses for the removal trials, and the investigators may use carcasses found in fatality  
3 monitoring searches. The investigators shall select species with approximately the same  
4 coloration and size attributes as species found within the site boundary. If suitable trial carcasses  
5 are available, trials during the fall season will include several small brown birds to simulate bat  
6 carcasses. Legally obtained bat carcasses will be used if available.

7 Trial carcasses will be marked discreetly for recognition by searchers and other  
8 personnel. Carcasses will be placed in a variety of postures to simulate a range of conditions. For  
9 example, birds will be: (1) placed in an exposed posture (e.g., thrown over the shoulder), (2)  
10 hidden to simulate a crippled bird (e.g., placed beneath a shrub or tuft of grass) or (3) partially  
11 hidden. The trial carcasses will be placed randomly within the carcass removal trial plots. Trial  
12 carcasses will be left in place until the end of the carcass removal trial.

13 An approximate schedule for assessing removal status is once daily for the first 4 days,  
14 and on days 7, 10, 14, 21, 28 and 35. This schedule may be adjusted depending on actual carcass  
15 removal rates, weather conditions and coordination with the other survey work. The condition of  
16 scavenged carcasses will be documented during each assessment, and at the end of the trial all  
17 traces of the carcasses will be removed from the site. Scavenger or other activity could result in  
18 complete removal of all traces of a carcass in a location or distribution of feathers and carcass  
19 parts to several locations. This distribution will not constitute removal if evidence of the carcass  
20 remains within an area similar in size to a search plot and if the evidence would be discernible to  
21 a searcher during a normal survey.

22 Before beginning removal trials for any subsequent year of fatality monitoring, the  
23 certificate holder shall report the results of the first-year removal trials to the Department and  
24 ODFW. In the report, the certificate holder shall analyze whether four removal trials per year, as  
25 described above, provide sufficient data to accurately estimate adjustment factors for carcass  
26 removal. The number of removal trials may be adjusted up or down, subject to the approval of  
27 the Department.

### 28 (c) Searcher Efficiency Trials

29 The objective of searcher efficiency trials is to estimate the percentage of bird and bat  
30 fatalities that searchers are able to find. The investigators shall conduct searcher efficiency trials  
31 on the fatality monitoring search plots in both grassland/shrub-steppe and cultivated agriculture  
32 habitat types. A pooled estimate of searcher efficiency will be used to adjust carcass counts for  
33 detection bias.

34 The investigators shall conduct searcher efficiency trials within each of the seasons  
35 defined above during the years in which the fatality monitoring occurs. Each trial will involve  
36 approximately 4 to 15 carcasses. The searchers will not be notified of carcass placement or test  
37 dates. The investigators shall vary the number of trials per season and the number of carcasses  
38 per trial so that the searchers will not know the total number of trial carcasses being used in any  
39 trial. In total, approximately 80 carcasses will be used per year, or approximately 15 to 25 per  
40 season.

41 For each trial, the investigators shall use small- and large-bodied species. The  
42 investigators shall use game birds or other legal sources of avian species as test carcasses for the  
43 efficiency trials, and the investigators may use carcasses found in fatality monitoring searches.



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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.

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 search (described below) but before the beginning of the search, investigators will place 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 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 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.

### (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.

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1 Searchers shall flag all avian or bat carcasses discovered. Carcasses are defined as a  
2 complete carcass or body part, 10 or more feathers or three or more primary feathers in one  
3 location. When parts of carcasses and feathers from the same species are found within a search  
4 plot, searchers shall make note of the relative positions and assess whether or not these are from  
5 the same fatality.

6 All carcasses (avian and bat) found during the standardized carcass searches will be  
7 photographed, recorded and labeled with a unique number. Searchers shall make note of the  
8 nearest two or three structures (turbine, power pole, fence, building or overhead line) and the  
9 approximate distance from the carcass to these structures. The species and age of the carcass will  
10 be determined when possible. Searchers shall note the extent to which the carcass is intact and  
11 estimate time since death. Searchers shall describe all evidence that might assist in determination  
12 of cause of death, such as evidence of electrocution, vehicular strike, wire strike, predation or  
13 disease.

14 The investigators shall calculate fatality rates using the statistical methods described in  
15 Section (f), except that the investigators may use different notation or methods that are  
16 mathematically equivalent with prior approval of the Department. In making these calculations,  
17 the investigators may exclude carcass data from the first search of each turbine plot (to eliminate  
18 possible counting of carcasses that were present before the turbine was operating).

19 The investigators shall estimate the number of avian and bat fatalities attributable to  
20 operation of the facility based on the number of avian and bat fatalities found at the facility site.  
21 All carcasses located within areas surveyed, regardless of species, will be recorded and, if  
22 possible, a cause of death determined based on blind necropsy results. If a different cause of  
23 death is not apparent, the fatality will be attributed to facility operation. The total number of  
24 avian and bat fatalities will be estimated by adjusting for removal and searcher efficiency bias.

25 On an annual basis, the certificate holder shall report an estimate of fatalities in eight  
26 categories: (1) all birds, (2) small birds, (3) large birds, (4) raptors, (5) grassland birds, (6)  
27 nocturnal migrants, (7) state and federally listed threatened and endangered species and State  
28 Sensitive Species listed under OAR 635-100-0040 and (8) bats. The certificate holder shall  
29 report annual fatality rates on both a per-megawatt (MW) and per-turbine basis.

### 30 (e) Incidental Finds and Injured Birds

31 The searchers might discover carcasses incidental to formal carcass searches (e.g., while  
32 driving within the project area). For each incidentally discovered carcass, the searcher shall  
33 identify, photograph, record data and collect the carcass as would be done for carcasses within  
34 the formal search sample during scheduled searches. If the incidentally discovered carcass is  
35 found within a formal search plot, the fatality data will be included in the calculation of fatality  
36 rates. If the incidentally discovered carcass is found outside a formal search plot, the data will be  
37 reported separately. The certificate holder shall coordinate collection of incidentally discovered  
38 state endangered, threatened, sensitive or other state protected species with ODFW. The  
39 certificate holder shall coordinate incidentally discovered federally-listed endangered or  
40 threatened species and Migratory Bird Treaty Act protected avian species with USFWS.

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The certificate holder shall contact a qualified rehabilitation specialist approved by the Department<sup>2</sup> 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, unless the cause of injury is clearly demonstrated to be unrelated to the facility operations.

### (f) Statistical Methods for Fatality Estimates

The estimate of the total number of wind facility-related fatalities is based on:

- (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.<sup>3</sup>
- (3) Searcher efficiency expressed as the proportion of planted carcasses found by searchers.
- (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.

### Definition of Variables

The following variables are used in the equations below:

|             |  |
|-------------|--|
| $c_i$       | 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   |
| $n$         | the number of search plots   |
| $k$         | 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) |
| $\bar{c}$   | the average number of carcasses observed per turbine per year  |
| $s$         | the number of carcasses used in removal trials   |
| $s_c$       | the number of carcasses in removal trials that remain in the study area after 35 days  |
| $se$        | standard error (square of the sample variance of the mean)   |
| $t_i$       | the time (days) a carcass remains in the study area before it is removed   |
| $\bar{t}$   | the average time (days) a carcass remains in the study area before it is removed   |
| $d$         | the total number of carcasses placed in searcher efficiency trials   |
| $p$         | the estimated proportion of detectable carcasses found by searchers  |
| $I$         | the average interval between searches in days  |
| $\hat{\pi}$ | the estimated probability that a carcass is both available to be found during a search and is found  |

<sup>2</sup> 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.

<sup>3</sup> If a different cause of death is not apparent, the fatality will be attributed to facility operation.



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$m_t$  the estimated annual average number of fatalities per turbine per year, adjusted for removal and observer detection bias

C nameplate energy output of turbine in MW

### Observed Number of Carcasses

The estimated average number of carcasses ( $\bar{c}$ ) observed per turbine per year is:

$$\bar{c} = \frac{\sum_{i=1}^n c_i}{k} . \quad (1)$$

### 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:

$$\bar{t} = \frac{\sum_{i=1}^s t_i}{s - s_c} . \quad (2)$$

This estimator is the maximum likelihood estimator assuming the removal times follow an 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. Removal rates will be estimated by carcass size (small and large), habitat type and season.

### Estimation of Observer Detection Rates

Observer detection rates (i.e., searcher efficiency rates) are expressed as  $p$ , the proportion of trial carcasses that are detected by searchers. Observer detection rates will be estimated by carcass size, habitat type and season.

### Estimation of Facility-Related Fatality Rates

The estimated per turbine annual fatality rate ( $m_t$ ) is calculated by:

$$m_t = \frac{\bar{c}}{\hat{\pi}} , \quad (3)$$

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:

$$\hat{\pi} = \frac{\bar{t} \cdot p}{I} \cdot \left[ \frac{\exp\left(\frac{I}{\bar{t}}\right) - 1}{\exp\left(\frac{I}{\bar{t}}\right) - 1 + p} \right] . \quad (4)$$

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The estimated per MW annual fatality rate ( $m$ ) is calculated by:

$$m = \frac{m_t}{C}. \quad (5)$$

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 5<sup>th</sup> and upper 95<sup>th</sup> percentiles of the 5000 bootstrap estimates are estimates of the lower limit and upper limit of 90% confidence intervals.

### 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.

### (g) Mitigation

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.”<sup>4</sup> 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:

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<sup>4</sup> 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.”

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| Species Group   | Threshold of Concern<br>(fatalities per MW) |
|---|---|
| Raptors<br>(All eagles, hawks, falcons, and owls, including burrowing owls.)  | 0.09  |
| Raptor species of special concern<br>(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<br>(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<br>(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  
2 certificate holder shall implement additional mitigation if the Department determines that  
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  
8 holder, in consultation with the Department and ODFW, shall propose mitigation measures  
9 designed to benefit the affected species. Acceptable mitigation may include, but not limited to,  
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  
12 required or provided in conjunction with raptor nest monitoring, habitat mitigation, or other  
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  
17 the need for mitigation is unclear based on the information available at the time. The certificate  
18 holder shall implement such data collection as approved by the Council.

19 The certificate holder shall design mitigation to benefit the affected species group.  
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  
22 intact and functional for wildlife are preferable to degraded habitat areas. Preference should be  
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  
28 contribution to research that will aid in understanding more about the affected species and its  
29 conservation needs in the region.

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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 species and to develop possible ways to reduce impacts to the affected species.

### Solar Array

~~In addition to wind turbines, Phase 2 may include a photovoltaic (PV) solar energy array on up to 1,189 acres in Category 6 habitat within the solar micrositing area. Although publicly 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 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 California was low (0.50 birds/MW/year). In comparison, Johnson and Erickson (2011) 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 (excluding raptors) mortality was 2.28 fatalities/MW/year.~~

~~Some risk of avian mortality occurs with most human development (ranging from single-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 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 risk. The role of these risk factors has been outlined in the USFWS guidelines for wind turbines (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).~~

~~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.~~

## 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

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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.

### (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.

#### 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).

#### For Burrowing Owls

If burrowing owl nest sites are discovered during pre-construction, construction, or post-construction, the investigators will monitor them according to the following protocol approved by ODFW. This species is not easily detected during aerial raptor nest surveys.. Any nests discovered during post-construction surveys, whether active or showing signs of intermittent use 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 recorded for each nest site. Coordinates for ancillary burrows used by one nesting pair or a group of nesting pairs will also be recorded. Locations of inactive nests will be recorded because they could become occupied during future years.

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

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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.

### (b) Long-Term Monitoring

In addition to the two years of post-construction raptor nest surveys described in Section 2(a), the investigators shall conduct long-term raptor nest surveys at 5-year intervals for the life of the facility.<sup>5</sup> Investigators will conduct the first long-term raptor nest survey in the first raptor nesting season that is at least 5 years after the completion of construction and is in a year that is 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 described above in Section 2(a) unless the investigators propose alternative protocols that are 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 investigators will analyze the data and report after each year of long-term raptor nest surveys.

### (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, 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 site is an MWPF turbine, unless the certificate holder demonstrates, and the Department agrees, that the reduction was due to a different cause. At a minimum, if the analysis shows that a Swainson's hawk, ferruginous hawk or burrowing owl has abandoned a nest territory within the facility site or within ½ mile of the facility site or has not fledged any young over two successive surveys within that same area, the investigators will assume the abandonment or unsuccessful fledging is due to operation of the facility unless another cause can be demonstrated convincingly.

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

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<sup>5</sup> 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.



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turbine and nesting parameters (e.g., number of fledglings per reproductive pair) will be very low. Therefore, impacts may have to be judged based on trends in the data, results from other wind energy facility monitoring studies and literature on what is known regarding the populations in the region.

### (d) Mitigation

If the analysis shows a reduction in nesting success or nest use, the certificate holder shall 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 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 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 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, additional raptor nest monitoring, protection of natural nest sites from human disturbance or cattle activity (preferably within the general area of the facility) or participation in research 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 conjunction with other components of the *Wildlife Monitoring and Mitigation Plan* or *Habitat Mitigation Plan* would also benefit the raptor species whose nesting success was adversely affected.

### 3. Washington ground squirrel surveys

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 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 areas and the buffer areas within 785 feet in suitable habitat. The investigators will walk standard protocol-level transects twice between late March and late May and record level of use, notes on natal sites, physical extent of the sites and any noticeable land use or habitat changes that may 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-construction boundaries.

The certificate holder shall conduct surveys during the year following construction and 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 survey, the certificate holder shall report the results to ODFW and to the Department and shall 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 waterbodies) or an absence of suitable habitat corridors that would prevent the dispersal of WGS into areas where facility components are located.

#### 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.

During the years in which fatality monitoring occurs, if maintenance personnel discover incidental finds outside the search plots for the fatality monitoring searches, the data will be reported separately from fatality monitoring data. If maintenance personnel discover carcasses within search plots, the data will be included in the calculation of fatality rates. The maintenance personnel will notify a project biologist..

#### 5. Data Reporting

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 monitoring program data, raptor nest survey data, WGS survey data, WGS incidental observation and assessment reports and Wildlife Reporting and Handling System data. The certificate holder may include the reporting of wildlife monitoring data and analysis in the annual report required under OAR 345-026-0080 or submit this information as a separate document at the same time the annual report is submitted. In addition, the certificate holder shall provide to the Department any data or record generated in carrying out this monitoring plan upon request by the Department.

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.<sup>6</sup>

#### 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.

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<sup>6</sup> 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.



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## 7. References

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## **Draft Montague Solar Facility Wildlife Monitoring and Mitigation Plan**

# Montague ~~Wind Power~~Solar Facility: ~~Phase 2~~ Wildlife Monitoring and Mitigation Plan

[~~AS AMENDED JANUARY 2018~~XX 2020]

This plan describes wildlife monitoring that the certificate holder shall conduct during operation of ~~Phase 2 of the Montague Wind Power~~Solar Facility (~~MWPF~~).<sup>1</sup> This plan was approved in September 2019 as part of the Energy Facility Siting Council's (EFSC) Final Order on Request for Amendment 4 of the Montague Wind Power Facility site certificate (Final Order on RFA4). Final Order on RFA4 approved modifications to the 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 acres approved for solar facility components, the land was used for cultivation of dryland winter wheat and was designated habitat Category 6. 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 previously approved facility components (Phase 2) to be allocated under original site certificates for facilities named Montague Solar Facility and Oregon Trail Solar Facility. The site certificate issued for the Montague Solar Facility was based entirely on the previously approved Montague Wind Power Facility site certificate; mitigation plans were based entirely on those approved in the Final Order on RFA4; modifications were incorporated into the site certificates and mitigation plans based on the allocation of previously approved facility components, location and type of equipment.

This Wildlife Monitoring and Mitigation Plan is based on the draft amended plan provided as Attachment F of the Final Order on RFA4, revised accordingly to describe and apply to the Montague Solar Facility. The Montague Solar Facility is a 162 megawatt (MW) solar photovoltaic energy facility located within a 1,496 solar micrositing area and 1,763 acre site boundary, in northeastern Gilliam County.

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.

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.

The *Wildlife Monitoring and Mitigation Plan* for the ~~MWPF~~-Montague Solar Facility has the following components:

1) Fatality monitoring ~~program including:~~applicability review

~~a) Definitions and methods~~

~~b) Removal trials~~

<sup>1</sup> This plan is incorporated by reference in the site certificate for the ~~MWPF~~-Montague Solar 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.

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- ~~e) Searcher efficiency trials~~
- ~~d) Fatality monitoring search protocol~~
- ~~e) Incidental finds and injured birds~~
- ~~f) Statistical methods for fatality estimates~~
- ~~g) Mitigation~~

~~2) Raptor nesting surveys~~

~~3) Washington ground squirrel surveys~~

~~4)2) Wildlife Reporting and Handling System~~

~~5)3) 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).~~

## ~~1. — Fatality Monitoring~~

### ~~(a) Definitions and Methods~~

#### Seasons

~~This plan uses the following dates for defining seasons:~~

| <del>Season</del>           | <del>Dates</del>                   |
|-----------------------------|------------------------------------|
| <del>Spring Migration</del> | <del>March 16 to May 15</del>      |
| <del>Summer/Breeding</del>  | <del>May 16 to August 15</del>     |
| <del>Fall Migration</del>   | <del>August 16 to October 31</del> |
| <del>Winter</del>           | <del>November 1 to March 15</del>  |

#### Search Plots

~~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 plots will be centered on the turbine location and will have a radius equal to the maximum blade tip height of the turbine contained within the plot. “Maximum blade tip height” is the turbine hub height plus one half the rotor diameter. Square search plots will be of sufficient size to contain a circular search plot as described above. The certificate holder shall use the same search plots for each search conducted during a monitoring year.~~

~~Scheduling~~

~~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:~~

| <del>Season</del>           | <del>Frequency</del>                         |
|-----------------------------|--|
| <del>Spring Migration</del> | <del>2 searches per month (4 searches)</del> |
| <del>Summer/Breeding</del>  | <del>1 search per month (3 searches)</del>   |
| <del>Fall Migration</del>   | <del>2 searches per month (5 searches)</del> |
| <del>Winter</del>           | <del>1 search per month (4 searches)</del>   |

~~Sample Size~~

~~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 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 constructed in two phases (Phases 1 and 2). Phase 1 will be completed in advance of Phase 2. 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 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:~~

- ~~• 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 holder shall consult with an independent expert with experience in statistical analysis of avian fatality data to determine whether it would be possible to design a turbine sample with a sufficient number of turbines in each size class to allow a statistical comparison of fatality rates for all birds as a group. The certificate holder shall submit the expert's written analysis to the 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 each class and conduct the comparison study. The certificate holder may choose to sample more than 50 turbines in each monitoring year, if a larger sample size would allow the comparison study to be done.~~

~~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~~

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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 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.

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.

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:

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.

~~or~~

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).

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.

**(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.



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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.~~

14       ~~Trial carcasses will be marked discreetly for recognition by searchers and other~~  
15 ~~personnel. Carcasses will be placed in a variety of postures to simulate a range of conditions. For~~  
16 ~~example, birds will be: (1) placed in an exposed posture (e.g., thrown over the shoulder), (2)~~  
17 ~~hidden to simulate a crippled bird (e.g., placed beneath a shrub or tuft of grass) or (3) partially~~  
18 ~~hidden. The trial carcasses will be placed randomly within the carcass removal trial plots. Trial~~  
19 ~~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,~~  
21 ~~and on days 7, 10, 14, 21, 28 and 35. This schedule may be adjusted depending on actual carcass~~  
22 ~~removal rates, weather conditions and coordination with the other survey work. The condition of~~  
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~~  
25 ~~complete removal of all traces of a carcass in a location or distribution of feathers and carcass~~  
26 ~~parts to several locations. This distribution will not constitute removal if evidence of the carcass~~  
27 ~~remains within an area similar in size to a search plot and if the evidence would be discernible to~~  
28 ~~a searcher during a normal survey.~~

29       ~~Before beginning removal trials for any subsequent year of fatality monitoring, the~~  
30 ~~certificate holder shall report the results of the first year removal trials to the Department and~~  
31 ~~ODFW. In the report, the certificate holder shall analyze whether four removal trials per year, as~~  
32 ~~described above, provide sufficient data to accurately estimate adjustment factors for carcass~~  
33 ~~removal. The number of removal trials may be adjusted up or down, subject to the approval of~~  
34 ~~the Department.~~

### 35 ~~(c) Searcher Efficiency Trials~~

36       ~~The objective of searcher efficiency trials is to estimate the percentage of bird and bat~~  
37 ~~fatalities that searchers are able to find. The investigators shall conduct searcher efficiency trials~~  
38 ~~on the fatality monitoring search plots in both grassland/shrub steppe and cultivated agriculture~~  
39 ~~habitat types. A pooled estimate of searcher efficiency will be used to adjust carcass counts for~~  
40 ~~detection bias.~~

41       ~~The investigators shall conduct searcher efficiency trials within each of the seasons~~  
42 ~~defined above during the years in which the fatality monitoring occurs. Each trial will involve~~  
43 ~~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~~  
2 ~~per trial so that the searchers will not know the total number of trial carcasses being used in any~~  
3 ~~trial. In total, approximately 80 carcasses will be used per year, or approximately 15 to 25 per~~  
4 ~~season.~~

5 ~~For each trial, the investigators shall use small and large-bodied species. The~~  
6 ~~investigators shall use game birds or other legal sources of avian species as test carcasses for the~~  
7 ~~efficiency trials, and the investigators may use carcasses found in fatality monitoring searches.~~  
8 ~~The investigators shall select species with approximately the same coloration and size attributes~~  
9 ~~as species found within the site boundary. If suitable test carcasses are available, trials during the~~  
10 ~~fall season will include several small brown birds to simulate bat carcasses. Legally obtained bat~~  
11 ~~carcasses will be used if available. The investigators shall mark the test carcasses to differentiate~~  
12 ~~them from other carcasses that might be found within the search plot and shall use methods~~  
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.~~

15 ~~The certificate holder shall distribute trial carcasses in varied habitat in rough proportion~~  
16 ~~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~~  
19 ~~plot) within areas to be searched. If scavengers appear attracted by placement of carcasses, the~~  
20 ~~carcasses will be distributed before dawn.~~

21 ~~Efficiency trials will be spread over the entire season to incorporate effects of varying~~  
22 ~~weather and vegetation growth. Carcasses will be placed in a variety of postures to simulate a~~  
23 ~~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.~~

25 ~~The number and location of the efficiency trial carcasses found during the carcass search~~  
26 ~~will be recorded. The number of efficiency trial carcasses available for detection during each~~  
27 ~~trial will be determined immediately after the trial by the person responsible for distributing the~~  
28 ~~carcasses. Following plot searches, all traces of test carcasses will be removed from the site.~~

29 ~~If new searchers are brought into the search team, additional searcher efficiency trials~~  
30 ~~will be conducted to ensure that detection rates incorporate searcher differences. The certificate~~  
31 ~~holder shall include a discussion of any changes in search personnel and any additional detection~~  
32 ~~trials in the reporting required under Section 5 of this plan.~~

33 ~~Before beginning searcher efficiency trials for any subsequent year of fatality monitoring,~~  
34 ~~the certificate holder shall report the results of the first year efficiency trials to the Department~~  
35 ~~and ODFW. In the report, the certificate holder shall analyze whether the efficiency trials as~~  
36 ~~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~~



1 ~~variances. The investigators shall perform fatality monitoring using standardized carcass~~  
2 ~~searches according to the schedule described above.~~

3 ~~Personnel trained in proper search techniques (“the searchers”) will conduct the carcass~~  
4 ~~searches by walking parallel transects approximately 6 meters apart within the search plots. A~~  
5 ~~searcher will walk at a rate of approximately 45 to 60 meters per minute along each transect,~~  
6 ~~searching both sides out to 3 meters for casualties. Search area and speed may be adjusted by~~  
7 ~~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~~  
14 ~~photographed, recorded and labeled with a unique number. Searchers shall make note of the~~  
15 ~~nearest two or three structures (turbine, power pole, fence, building or overhead line) and the~~  
16 ~~approximate distance from the carcass to these structures. The species and age of the carcass will~~  
17 ~~be determined when possible. Searchers shall note the extent to which the carcass is intact and~~  
18 ~~estimate time since death. Searchers shall describe all evidence that might assist in determination~~  
19 ~~of cause of death, such as evidence of electrocution, vehicular strike, wire strike, predation or~~  
20 ~~disease.~~

21 ~~The investigators shall calculate fatality rates using the statistical methods described in~~  
22 ~~Section (f), except that the investigators may use different notation or methods that are~~  
23 ~~mathematically equivalent with prior approval of the Department. In making these calculations,~~  
24 ~~the investigators may exclude carcass data from the first search of each turbine plot (to eliminate~~  
25 ~~possible counting of carcasses that were present before the turbine was operating).~~

26 ~~The investigators shall estimate the number of avian and bat fatalities attributable to~~  
27 ~~operation of the facility based on the number of avian and bat fatalities found at the facility site.~~  
28 ~~All carcasses located within areas surveyed, regardless of species, will be recorded and, if~~  
29 ~~possible, a cause of death determined based on blind necropsy results. If a different cause of~~  
30 ~~death is not apparent, the fatality will be attributed to facility operation. The total number of~~  
31 ~~avian and bat fatalities will be estimated by adjusting for removal and searcher efficiency bias.~~

32 ~~On an annual basis, the certificate holder shall report an estimate of fatalities in eight~~  
33 ~~categories: (1) all birds, (2) small birds, (3) large birds, (4) raptors, (5) grassland birds, (6)~~  
34 ~~nocturnal migrants, (7) state and federally listed threatened and endangered species and State~~  
35 ~~Sensitive Species listed under OAR 635-100-0040 and (8) bats. The certificate holder shall~~  
36 ~~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~~

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.

The certificate holder shall contact a qualified rehabilitation specialist approved by the Department<sup>2</sup> 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, unless the cause of injury is clearly demonstrated to be unrelated to the facility operations.

#### (f) ~~Statistical Methods for Fatality Estimates~~

The estimate of the total number of wind facility related fatalities is based on:

- (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.<sup>3</sup>
- (3) Searcher efficiency expressed as the proportion of planted carcasses found by searchers.
- (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.

#### Definition of Variables

The following variables are used in the equations below:

$c_i$  — 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

$n$  — the number of search plots

$k$  — 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)

$\bar{c}$  — the average number of carcasses observed per turbine per year

$s$  — the number of carcasses used in removal trials

$s_e$  — the number of carcasses in removal trials that remain in the study area after 35 days

$se$  — standard error (square of the sample variance of the mean)

$t_i$  — the time (days) a carcass remains in the study area before it is removed

$\bar{t}$  — the average time (days) a carcass remains in the study area before it is removed

$d$  — the total number of carcasses placed in searcher efficiency trials

<sup>2</sup> 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.

<sup>3</sup> If a different cause of death is not apparent, the fatality will be attributed to facility operation.

$p$  — the estimated proportion of detectable carcasses found by searchers

$I$  — the average interval between searches in days

$\hat{\pi}$  — the estimated probability that a carcass is both available to be found during a search and is found

$m_i$  — the estimated annual average number of fatalities per turbine per year, adjusted for removal and observer detection bias

$C$  — nameplate energy output of turbine in MW

#### Observed Number of Carcasses

The estimated average number of carcasses ( $\bar{c}$ ) observed per turbine per year is:

$$\bar{c} = \frac{\sum_{i=1}^n c_i}{k} \quad (1)$$

#### 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:

$$\bar{t} = \frac{\sum_{i=1}^s t_i}{s - s_c} \quad (2)$$

This estimator is the maximum likelihood estimator assuming the removal times follow an 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. Removal rates will be estimated by carcass size (small and large), habitat type and season.

#### Estimation of Observer Detection Rates

Observer detection rates (i.e., searcher efficiency rates) are expressed as  $p$ , the proportion of trial carcasses that are detected by searchers. Observer detection rates will be estimated by carcass size, habitat type and season.

#### Estimation of Facility-Related Fatality Rates

The estimated per turbine annual fatality rate ( $m_i$ ) is calculated by:

$$m_i = \frac{\bar{c}}{\hat{\pi}}, \quad (3)$$

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:

$$\hat{\pi} = \frac{\bar{t} \cdot p}{I} \cdot \frac{\left[ \exp\left(\frac{I}{\bar{t}}\right) - 1 \right]}{\left[ \exp\left(\frac{I}{\bar{t}}\right) - 1 + p \right]} \quad (4)$$

The estimated per MW annual fatality rate ( $m$ ) is calculated by:

$$m = \frac{m_i}{C} \quad (5)$$

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 5<sup>th</sup> and upper 95<sup>th</sup> percentiles of the 5000 bootstrap estimates are estimates of the lower limit and upper limit of 90% confidence intervals.

### 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.

### (g) Mitigation

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.”<sup>4</sup> 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:

<sup>4</sup> 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.”

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| Species Group   | Threshold of Concern<br>(fatalities per MW) |
|---|---|
| Raptors<br>(All eagles, hawks, falcons, and owls, including burrowing owls.)  | 0.09  |
| Raptor species of special concern<br>(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<br>(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<br>(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  
2        certificate holder shall implement additional mitigation if the Department determines that  
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  
8        holder, in consultation with the Department and ODFW, shall propose mitigation measures  
9        designed to benefit the affected species. Acceptable mitigation may include, but not limited to,  
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  
12       required or provided in conjunction with raptor nest monitoring, habitat mitigation, or other  
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  
17       the need for mitigation is unclear based on the information available at the time. The certificate  
18       holder shall implement such data collection as approved by the Council.

19       The certificate holder shall design mitigation to benefit the affected species group.  
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  
22       intact and functional for wildlife are preferable to degraded habitat areas. Preference should be  
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  
28       contribution to research that will aid in understanding more about the affected species and its  
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 species and to develop possible ways to reduce impacts to the affected species.~~

### Solar Array

~~In addition to wind turbines, Phase 2 may include a photovoltaic (PV) solar energy array on up to 1,189 acres in Category 6 habitat within the solar micrositing area. Although publicly 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 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 California was low (0.50 birds/MW/year). In comparison, Johnson and Erickson (2011) 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 (excluding raptors) mortality was 2.28 fatalities/MW/year.~~

Some risk of avian mortality occurs with most human development (ranging from single-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 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 risk. The role of these risk factors has been outlined in the USFWS guidelines for wind turbines (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).

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~~facility.

## **~~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~~



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~~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.~~

### ~~(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.~~

#### ~~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).~~

#### ~~For Burrowing Owls~~

~~If burrowing owl nest sites are discovered during pre-construction, construction, or post-construction, the investigators will monitor them according to the following protocol approved by ODFW. This species is not easily detected during aerial raptor nest surveys. Any nests discovered during post-construction surveys, whether active or showing signs of intermittent use 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 recorded for each nest site. Coordinates for ancillary burrows used by one nesting pair or a group of nesting pairs will also be recorded. Locations of inactive nests will be recorded because they could become occupied during future years.~~

~~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~~

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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.

### (b) Long-Term Monitoring

In addition to the two years of post construction raptor nest surveys described in Section 2(a), the investigators shall conduct long term raptor nest surveys at 5 year intervals for the life of the facility.<sup>5</sup> Investigators will conduct the first long term raptor nest survey in the first raptor nesting season that is at least 5 years after the completion of construction and is in a year that is 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 described above in Section 2(a) unless the investigators propose alternative protocols that are 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 investigators will analyze the data and report after each year of long term raptor nest surveys.

### (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, 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 site is an MWPF turbine, unless the certificate holder demonstrates, and the Department agrees, that the reduction was due to a different cause. At a minimum, if the analysis shows that a Swainson's hawk, ferruginous hawk or burrowing owl has abandoned a nest territory within the facility site or within ½ mile of the facility site or has not fledged any young over two successive surveys within that same area, the investigators will assume the abandonment or unsuccessful fledging is due to operation of the facility unless another cause can be demonstrated convincingly.

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

<sup>5</sup> 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

6 If the analysis shows a reduction in nesting success or nest use, the certificate holder shall  
7 implement mitigation if the Department determines that mitigation is appropriate. The certificate  
8 holder shall propose mitigation for the affected species in consultation with the Department and  
9 ODFW and shall implement mitigation as approved by the Council. In proposing appropriate  
10 mitigation, the certificate holder shall advise the Department if any other wind project in the area  
11 is obligated to provide mitigation for a reduction in raptor nesting success at the same nest site.  
12 Mitigation should be designed to benefit the affected species or contribute to overall scientific  
13 knowledge and understanding of what causes nest abandonment or nest failure. Mitigation may  
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 cattle 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.  
18 Mitigation may take into consideration whether the mitigation required or provided in  
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  
24 Washington ground squirrel (WGS) activity within the site boundary. Qualified professional  
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  
31 WGS detections but the boundaries of Category 1 habitat will not be revised from pre-  
32 construction boundaries.

33 The certificate holder shall conduct surveys during the year following construction and  
34 every three years thereafter for the life of the facility in areas where WGS were detected within  
35 the typical maximum dispersal distance of 3,281 feet (1,000 meters) of the facility. After each  
36 survey, the certificate holder shall report the results to ODFW and to the Department and shall  
37 include maps of the areas surveyed and detection locations. WGS surveys will not be conducted  
38 if there are barriers to WGS dispersal (i.e., active agriculture fields, highways, perennial  
39 waterbodies) or an absence of suitable habitat corridors that would prevent the dispersal of WGS  
40 into areas where facility components are located.

#### 1 **4.1. Wildlife Reporting and Handling System**

2 The Wildlife Reporting and Handling System is a voluntary monitoring program for  
3 maintenance personnel to search for avian and bat casualties during operation of the facility.  
4 Maintenance personnel will be trained in the methods needed to carry out this program. This  
5 monitoring program includes the initial response, handling, and reporting of bird and bat  
6 carcasses discovered incidental to maintenance operations (“incidental finds”). This is a  
7 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  
15 for each calendar year in which wildlife monitoring occurs. Monitoring data include fatality  
16 monitoring program data, raptor nest survey data, WGS survey data, WGS incidental observation  
17 and assessment reports and Wildlife Reporting and Handling System data. The certificate holder  
18 may include the reporting of wildlife monitoring data and analysis in the annual report required  
19 under OAR 345-026-0080 or submit this information as a separate document at the same time  
20 the annual report is submitted. In addition, the certificate holder shall provide to the Department  
21 any data or record generated in carrying out this monitoring plan upon request by the  
22 Department.

23 The certificate holder shall notify USFWS and ODFW if any federal or state endangered  
24 or threatened species are killed or injured on the facility site within 48 hours of species  
25 identification.

26 Within 30 days after receiving the final versions of reports that are required under this  
27 plan, the Department will make the reports available to the public on its website and will specify  
28 a time in which the public may submit comments to the Department.<sup>6</sup>

#### 29 **6.3. Amendment of the Plan**

30 This *Wildlife Monitoring and Mitigation Plan* may be amended from time to time by  
31 agreement of the certificate holder and the Council. Such amendments may be made without  
32 amendment of the site certificate. The Council authorizes the Department to agree to  
33 amendments to this plan and to mitigation actions that may be required under this plan. The  
34 Department shall notify the Council of all amendments and mitigation actions, and the Council  
35 retains the authority to approve, reject or modify any amendment of this plan or mitigation action  
36 agreed to by the Department.

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<sup>6</sup> 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.

7.4. References

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[https://www.fws.gov/southwest/es/documents/R2ES/LitCited/LPC\\_2012/Johnson\\_and\\_Erickson\\_2011.pdf](https://www.fws.gov/southwest/es/documents/R2ES/LitCited/LPC_2012/Johnson_and_Erickson_2011.pdf).

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Manly, B. F. J. 1997. *Randomization, Bootstrap, and Monte Carlo Methods in Biology*. 2nd edition. New York: Chapman and Hall.

U.S. Fish and Wildlife Service (USFWS). 2012. *U.S. Fish and Wildlife Service Land-Based Wind Energy Guidelines*. UOMB Control No. 1018-0148.

U.S. Fish and Wildlife Service (USFWS). 2013. *Revised Guidelines for Communication Tower Design, Siting, Construction, Operation, Retrofitting, and Decommissioning -- Suggestions Based on Previous USFWS Recommendations to FCC Regarding WT Docket No. 03-187, FCC 06-164, Notice of Proposed Rulemaking, "Effects of Communication Towers on Migratory Birds," Docket No. 08-61, FCC's Antenna Structure Registration Program, and Service 2012 Wind Energy Guidelines*.

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## **Draft Oregon Trail Solar Facility Wildlife Monitoring and Mitigation Plan**

**~~Montague Wind Power~~Oregon Trail Solar Facility: ~~Phase 2~~ Wildlife  
Monitoring and Mitigation Plan  
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This plan describes wildlife monitoring that the certificate holder shall conduct during operation of ~~Phase 2 of the Montague Oregon Trail Wind Power~~Solar Facility (~~MWPF~~).<sup>1</sup> This plan was approved in September 2019 as part of the Energy Facility Siting Council's (EFSC) Final Order on Request for Amendment 4 of the Montague Wind Power Facility site certificate (Final Order on RFA4). Final Order on RFA4 approved modifications to the previously approved layout and specifications of wind facility components and the addition of approximately 1,189 acres of solar photovoltaic energy generation equipment. 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.

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 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.

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.

The *Wildlife Monitoring and Mitigation Plan* for the ~~MWPF~~Oregon Trail Solar Facility has the following components:

- 1) Fatality monitoring program including:
  - a) Definitions and methods
  - b) Removal trials
  - c) Searcher efficiency trials
  - d) Fatality monitoring search protocol
  - e) Incidental finds and injured birds
  - f) Statistical methods for fatality estimates

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<sup>1</sup> This plan is incorporated by reference in the site certificate for the ~~MWPF~~Oregon Trail Solar 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.

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g) Mitigation

2) Raptor nesting surveys

3) Washington ground squirrel surveys

4) Wildlife Reporting and Handling System

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).

**1. Fatality Monitoring**

(a) Definitions and Methods

Seasons

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  |

Search Plots

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 plots will be centered on the turbine location and will have a radius equal to the maximum blade tip height of the turbine contained within the plot. "Maximum blade tip height" is the turbine hub-height plus one-half the rotor diameter. Square search plots will be of sufficient size to contain a circular search plot as described above. The certificate holder shall use the same search plots for each search conducted during a monitoring year.

Scheduling

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:

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| 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)   |

**Sample Size**

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 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 constructed in two phases (Phases 1 and 2). Phase 1 will be completed in advance of Phase 2.~~ 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 throughout the entire facility ~~(comprising Phases 1 and 2).~~

The certificate holder may choose to build the MWPF-Oregon Trail Solar Facility using turbine types in two size classes:

- 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 large turbines, the certificate holder shall consult with an independent expert with experience in statistical analysis of avian fatality data to determine whether it would be possible to design a turbine sample with a sufficient number of turbines in each size class to allow a statistical comparison of fatality rates for all birds as a group. The certificate holder shall submit the expert's written analysis to the 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 each class and conduct the comparison study. The certificate holder may choose to sample more than 50 turbines in each monitoring year, if a larger sample size would allow the comparison study to be done.

**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 completed a full year of monitoring.~~ As a result of the construction schedule, monitoring of



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turbines at the facility will continue without interruption for longer than one full year and possibly 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.~~

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 Solar Facility 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-Oregon Trail Solar Facility 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:

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.~~

-or-

~~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).~~

If fatality rates for the first year of monitoring at the MWPF-Oregon Trail Solar Facility 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.

**(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 15 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.



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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, and on days 7, 10, 14, 21, 28 and 35. This schedule may be adjusted depending on actual carcass removal rates, weather conditions and coordination with the other survey work. The condition of scavenged carcasses will be documented during each assessment, and at the end of the trial all 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 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 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.

**(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.

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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.

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 search (described below) but before the beginning of the search, investigators will place 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 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 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.

**(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.

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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 photographed, recorded and labeled with a unique number. Searchers shall make note of the nearest two or three structures (turbine, power pole, fence, building or overhead line) and the 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 estimate time since death. Searchers shall describe all evidence that might assist in determination of cause of death, such as evidence of electrocution, vehicular strike, wire strike, predation or 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.

**(e) Incidental Finds and Injured Birds**

The searchers might discover carcasses incidental to formal carcass searches (e.g., while driving within the project area). For each incidentally discovered carcass, the searcher shall 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 found within a formal search plot, the fatality data will be included in the calculation of fatality rates. If the incidentally discovered carcass is found outside a formal search plot, the data will be 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.

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The certificate holder shall contact a qualified rehabilitation specialist approved by the Department<sup>2</sup> 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, unless the cause of injury is clearly demonstrated to be unrelated to the facility operations.

(f) Statistical Methods for Fatality Estimates

The estimate of the total number of wind facility-related fatalities is based on:

- (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.<sup>3</sup>
- (3) Searcher efficiency expressed as the proportion of planted carcasses found by searchers.
- (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.

Definition of Variables

The following variables are used in the equations below:

|             |  |
|-------------|--|
| $c_i$       | 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   |
| $n$         | the number of search plots   |
| $k$         | 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) |
| $\bar{c}$   | the average number of carcasses observed per turbine per year  |
| $s$         | the number of carcasses used in removal trials   |
| $s_c$       | the number of carcasses in removal trials that remain in the study area after 35 days  |
| $se$        | standard error (square of the sample variance of the mean)   |
| $t_i$       | the time (days) a carcass remains in the study area before it is removed   |
| $\bar{t}$   | the average time (days) a carcass remains in the study area before it is removed   |
| $d$         | the total number of carcasses placed in searcher efficiency trials   |
| $p$         | the estimated proportion of detectable carcasses found by searchers  |
| $I$         | the average interval between searches in days  |
| $\hat{\pi}$ | the estimated probability that a carcass is both available to be found during a search and is found  |

<sup>2</sup> 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.

<sup>3</sup> If a different cause of death is not apparent, the fatality will be attributed to facility operation.

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$m_t$  the estimated annual average number of fatalities per turbine per year, adjusted for removal and observer detection bias

C nameplate energy output of turbine in MW

Observed Number of Carcasses

The estimated average number of carcasses ( $\bar{c}$ ) observed per turbine per year is:

$$\bar{c} = \frac{\sum_{i=1}^n c_i}{k} . \quad (1)$$

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:

$$\bar{t} = \frac{\sum_{i=1}^s t_i}{s - s_c} . \quad (2)$$

This estimator is the maximum likelihood estimator assuming the removal times follow an 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. Removal rates will be estimated by carcass size (small and large), habitat type and season.

Estimation of Observer Detection Rates

Observer detection rates (i.e., searcher efficiency rates) are expressed as  $p$ , the proportion of trial carcasses that are detected by searchers. Observer detection rates will be estimated by carcass size, habitat type and season.

Estimation of Facility-Related Fatality Rates

The estimated per turbine annual fatality rate ( $m_t$ ) is calculated by:

$$m_t = \frac{\bar{c}}{\hat{\pi}} , \quad (3)$$

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:

$$\hat{\pi} = \frac{\bar{t} \cdot p}{I} \cdot \left[ \frac{\exp\left(\frac{I}{\bar{t}}\right) - 1}{\exp\left(\frac{I}{\bar{t}}\right) - 1 + p} \right] . \quad (4)$$

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The estimated per MW annual fatality rate (m) is calculated by:

$$m = \frac{m_t}{C} . \quad (5)$$

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 5<sup>th</sup> and upper 95<sup>th</sup> percentiles of the 5000 bootstrap estimates are estimates of the lower limit and upper limit of 90% confidence intervals.

**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.

**(g) Mitigation**

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.”<sup>4</sup> 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~~Oregon Trail Solar Facility:

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<sup>4</sup> 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.”



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| <b>Species Group</b>   | <b>Threshold of Concern<br/>(fatalities per MW)</b> |
|--|---|
| <b>Raptors</b><br>(All eagles, hawks, falcons, and owls, including burrowing owls.)  | 0.09  |
| <b>Raptor species of special concern</b><br>(Swainson's hawk, ferruginous hawk, peregrine falcon, golden eagle, bald eagle, burrowing owl and any federal threatened or endangered raptor species.)                                    | 0.06  |
| <b>Grassland species</b><br>(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  |
| <b>State sensitive avian species listed under OAR 635-100-0040</b><br>(Excluding raptors listed above.)  | 0.2   |
| <b>Bat species as a group</b>  | 2.5   |

1 If the data show that a threshold of concern for a species group has been exceeded, the  
2 certificate holder shall implement additional mitigation if the Department determines that  
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  
8 holder, in consultation with the Department and ODFW, shall propose mitigation measures  
9 designed to benefit the affected species. Acceptable mitigation may include, but not limited to,  
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  
12 required or provided in conjunction with raptor nest monitoring, habitat mitigation, or other  
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  
17 the need for mitigation is unclear based on the information available at the time. The certificate  
18 holder shall implement such data collection as approved by the Council.

19 The certificate holder shall design mitigation to benefit the affected species group.  
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  
22 intact and functional for wildlife are preferable to degraded habitat areas. Preference should be  
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  
28 contribution to research that will aid in understanding more about the affected species and its  
29 conservation needs in the region.

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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 species and to develop possible ways to reduce impacts to the affected species.

#### Solar Array

~~In addition to wind turbines, Phase 2 may include a photovoltaic (PV) solar energy array on up to 1,189 acres in Category 6 habitat within the solar micrositing area. Although publicly 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 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 California was low (0.50 birds/MW/year). In comparison, Johnson and Erickson (2011) 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 (excluding raptors) mortality was 2.28 fatalities/MW/year.~~

~~Some risk of avian mortality occurs with most human development (ranging from single-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 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 risk. The role of these risk factors has been outlined in the USFWS guidelines for wind turbines (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).~~

~~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.~~

## 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) 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



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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.

(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.

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).

For Burrowing Owls

If burrowing owl nest sites are discovered during pre-construction, construction, or post-construction, the investigators will monitor them according to the following protocol approved by ODFW. This species is not easily detected during aerial raptor nest surveys.. Any nests discovered during post-construction surveys, whether active or showing signs of intermittent use 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 recorded for each nest site. Coordinates for ancillary burrows used by one nesting pair or a group of nesting pairs will also be recorded. Locations of inactive nests will be recorded because they could become occupied during future years.

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

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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.

**(b) Long-Term Monitoring**

In addition to the two years of post-construction raptor nest surveys described in Section 2(a), the investigators shall conduct long-term raptor nest surveys at 5-year intervals for the life of the facility.<sup>5</sup> Investigators will conduct the first long-term raptor nest survey in the first raptor nesting season that is at least 5 years after the completion of construction and is in a year that is 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 described above in Section 2(a) unless the investigators propose alternative protocols that are 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 investigators will analyze the data and report after each year of long-term raptor nest surveys.

**(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~~Oregon Trail Solar Facility, operation of another wind facility in the vicinity or some other cause. The investigators shall attribute the reduction to operation of the ~~MWPF~~Oregon Trail Solar Facility if the wind turbine closest to the affected nest site is an ~~MWPF~~Oregon Trail Solar Facility turbine, unless the certificate holder demonstrates, and the Department agrees, that the reduction was due to a different cause. At a minimum, if the analysis shows that a Swainson's hawk, ferruginous hawk or burrowing owl has abandoned a nest territory within the facility site or within ½ mile of the facility site or has not fledged any young over two successive surveys within that same area, the investigators will assume the abandonment or unsuccessful fledging is due to operation of the facility unless another cause can be demonstrated convincingly.

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

<sup>5</sup> 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.

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reproductive pair) will be very low. Therefore, impacts may have to be judged based on trends in the data, results from other wind energy facility monitoring studies and literature on what is known regarding the populations in the region.

(d) Mitigation

If the analysis shows a reduction in nesting success or nest use, the certificate holder shall 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 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 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 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, additional raptor nest monitoring, protection of natural nest sites from human disturbance or cattle activity (preferably within the general area of the facility) or participation in research 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 conjunction with other components of the *Wildlife Monitoring and Mitigation Plan* or *Habitat Mitigation Plan* would also benefit the raptor species whose nesting success was adversely affected.

**3. Washington ground squirrel surveys**

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 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 areas and the buffer areas within 785 feet in suitable habitat. The investigators will walk standard protocol-level transects twice between late March and late May and record level of use, notes on natal sites, physical extent of the sites and any noticeable land use or habitat changes that may 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-construction boundaries.

The certificate holder shall conduct surveys during the year following construction and 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 survey, the certificate holder shall report the results to ODFW and to the Department and shall 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 waterbodies) or an absence of suitable habitat corridors that would prevent the dispersal of WGS into areas where facility components are located.

**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.

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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.

During the years in which fatality monitoring occurs, if maintenance personnel discover incidental finds outside the search plots for the fatality monitoring searches, the data will be reported separately from fatality monitoring data. If maintenance personnel discover carcasses within search plots, the data will be included in the calculation of fatality rates. The maintenance personnel will notify a project biologist..

## **5. Data Reporting**

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 monitoring program data, raptor nest survey data, WGS survey data, WGS incidental observation and assessment reports and Wildlife Reporting and Handling System data. The certificate holder may include the reporting of wildlife monitoring data and analysis in the annual report required under OAR 345-026-0080 or submit this information as a separate document at the same time the annual report is submitted. In addition, the certificate holder shall provide to the Department any data or record generated in carrying out this monitoring plan upon request by the Department.

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.<sup>6</sup>

## **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.

## **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.

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<sup>6</sup> 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.

**~~Montague Wind Power~~Oregon Trail Solar Facility: Phase 2**

**Wildlife Monitoring and Mitigation Plan**

[AS AMENDED ~~JANUARY 2018~~XX 2020]

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8 [https://www.fws.gov/southwest/es/documents/R2ES/LitCited/LPC\\_2012/Johnson\\_and\\_Erickson](https://www.fws.gov/southwest/es/documents/R2ES/LitCited/LPC_2012/Johnson_and_Erickson_2011.pdf)  
9 [\\_2011.pdf](https://www.fws.gov/southwest/es/documents/R2ES/LitCited/LPC_2012/Johnson_and_Erickson_2011.pdf).

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11 "Night Migrant Fatalities and Obstruction Lighting at Wind Turbines in North America." *Wilson*  
12 *Journal of Ornithology* 122(4): 744-754.

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16 *Based Wind Energy Guidelines*. UOMB Control No. 1018-0148.

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18 *Tower Design, Siting, Construction, Operation, Retrofitting, and Decommissioning --*  
19 *Suggestions Based on Previous USFWS Recommendations to FCC Regarding WT Docket No.*  
20 *03-187, FCC 06-164, Notice of Proposed Rulemaking, "Effects of Communication Towers on*  
21 *Migratory Birds," Docket No. 08-61, FCC's Antenna Structure Registration Program, and*  
22 *Service 2012 Wind Energy Guidelines*.

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24 preliminary assessment of avian mortality at utility-scale solar energy facilities in the United  
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

**STEP 1: STOP WORK IMMEDIATELY.** 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.

**STEP 2: NOTIFY CONSTRUCTION PROJECT MANAGEMENT IMMEDIATELY.** 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](mailto:david.sheldon@Jacobs.com)



Matt Steinkamp  
CH2M  
Cell: (503) 358-9499  
[matt.steinkamp@jacobs.com](mailto:matt.steinkamp@jacobs.com)

STEP 3: NOTIFY THE STATE HISTORIC PRESERVATION OFFICE IMMEDIATELY. 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.

STEP 4: PARTICIPATE IN CONSULTATION AND DOCUMENTATION. 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:

- Secure the Site: 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).
- Direct Construction Elsewhere Onsite: The construction project manager will direct construction to resume away from cultural resources where appropriate and in communication with the affiliated Tribe(s).
- Contact Project Cultural Resources Specialist: 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:

- Notify Tribes: If not already notified, the cultural resources specialist will notify the Tribe(s) of the discovery.
- Identify Find: 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.
- Formulate Plan: 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](mailto:Dennis.Griffin@oregon.gov)  
(503) 986-0674

-or-

Assistant State Archaeologist  
John Pouley  
E-mail: [john.pouley@oregon.gov](mailto: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](mailto: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  
[tearafarrowferman@ctuir.com](mailto:tearafarrowferman@ctuir.com)  
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.

STEP 1: STOP WORK. In the event that human remains are discovered, stop all work in the area and secure the site.

STEP 2: NOTIFY APPROPRIATE PARTIES. 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

STEP 3: PROTECT THE REMAINS. 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-POWER~~SOLAR FACILITY, GILLIAM COUNTY, OREGON

## 1.0 Introduction

Montague ~~Wind Power Facility~~Solar, LLC (Montague) proposes to construct the Montague ~~Wind Power~~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)
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- 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

STEP 1: STOP WORK IMMEDIATELY. 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.

STEP 2: NOTIFY CONSTRUCTION PROJECT MANAGEMENT IMMEDIATELY. 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](mailto:david.sheldon@Jacobs.com)

Matt Steinkamp  
CH2M  
Cell: (503) 358-9499  
[matt.steinkamp@jacobs.com](mailto:matt.steinkamp@jacobs.com)

STEP 3: NOTIFY THE STATE HISTORIC PRESERVATION OFFICE IMMEDIATELY. The Montague 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.

STEP 4: PARTICIPATE IN CONSULTATION AND DOCUMENTATION. The Montague Solar 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:

- Secure the Site: 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).
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- Identify Find: 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.
- Formulate Plan: 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](mailto:Dennis.Griffin@oregon.gov)  
(503) 986-0674

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Assistant State Archaeologist  
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## Tribes

Confederated Tribes of the Warm Springs Reservation of Oregon  
Robert Brunoe, Tribal Historic Preservation Officer  
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Confederated Tribes of the Umatilla Indian Reservation  
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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.

STEP 1: STOP WORK. In the event that human remains are discovered, stop all work in the area and secure the site.

STEP 2: NOTIFY APPROPRIATE PARTIES. 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
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STEP 3: PROTECT THE REMAINS. 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 POWER~~OREGON TRAIL SOLAR FACILITY, GILLIAM COUNTY, OREGON

## 1.0 Introduction

~~Montague Wind Power Facility~~Oregon Trail Solar, LLC (~~Montague~~certificate holder) proposes to construct the ~~Montague Wind Power~~Oregon 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
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- 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

STEP 1: STOP WORK IMMEDIATELY. 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.

STEP 2: NOTIFY CONSTRUCTION PROJECT MANAGEMENT IMMEDIATELY. Contact the construction project manager or cultural resources specialist for the ~~Montague Facility~~Oregon Trail Solar 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:

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STEP 3: NOTIFY THE STATE HISTORIC PRESERVATION OFFICE IMMEDIATELY. The ~~Montague Facility~~Oregon 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.

STEP 4: PARTICIPATE IN CONSULTATION AND DOCUMENTATION. The ~~Montague Oregon Trail Solar 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:

- Secure the Site: 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).
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- Notify State Agencies: The construction project manager will contact Oregon SHPO.
- Formulate Plan: 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](mailto:Dennis.Griffin@oregon.gov)  
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John Pouley  
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## Tribes

Confederated Tribes of the Warm Springs Reservation of Oregon  
Robert Brunoe, Tribal Historic Preservation Officer  
[THPO@ctwsbnr.org](mailto: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  
[tearafarrowferman@ctuir.com](mailto:tearafarrowferman@ctuir.com)  
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.

STEP 1: STOP WORK. In the event that human remains are discovered, stop all work in the area and secure the site.

STEP 2: NOTIFY APPROPRIATE PARTIES. 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

STEP 3: PROTECT THE REMAINS. 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~~certificate holder.

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~~certificate 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**

**Montague ~~Wind Power~~Solar Facility**  
**Draft ~~Phase 2~~ Historical Resource Mitigation Plan**  
**[~~APRIL 2019~~AMENDED XX 2020]**

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**I. Introduction**

This draft plan describes approaches to mitigating the significant adverse impact to the Weatherford Barn resulting from construction and operation of the ~~Montague Wind Power Facility (MWPF)~~Montague Solar Facility).<sup>1</sup> ~~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.

**II. Regulatory Context for Mitigation**

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 MWPF~~the 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).

**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.

**1. Weatherford Barn**

The Weatherford Barn is a one-story, rectangular plan, wood-frame building with a front gable roof constructed in 1880. The building is surrounded by agricultural fields. Overall, the building is in poor condition and is no longer in regular use. Two large open bays are located on the north elevation – a double-height central bay and a side-aisle bay on the west side of the 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 covered in shingles, large sections of which are missing or badly deteriorated. The barn's exterior walls are covered in vertical wood boards. Many of these boards are rotten or missing, particularly on the west and south elevations. In addition, the original barn doors are missing. The building's interior floors are formed by wood planks on a slightly raised pier foundation.

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<sup>1</sup> This plan is incorporated by reference in the site certificate for the Montague ~~Wind Power~~Solar 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~~Solar Facility: Draft ~~Phase 2~~ Historical Resource Mitigation Plan

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.

### 2. Determination of Eligibility

An Oregon Inventory of Historic Properties Historic Resource Survey Form was completed for the Weatherford Barn in 1987. The form labels the property as the Weatherford Barn, and lists the owner as Marion T. Weatherford. The Weatherford family was, and remains, an important farming family in the area. However, it is not certain that the barn was originally constructed by the Weatherford family. A 1934 Metsker Map of the area shows that the parcel containing the barn was at that time part of Cannon Ranch, owned by A. M. Cannon. According to the 1934 map, the Weatherford Ranch was located approximately 3 miles southwest, near Olex (Metsker Maps, 1934). However, the parcels surrounding the barn appear to have been 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 southwest. A brief history of the county and the Weatherford family is included below for context.

Gilliam County encompasses 1,223 square miles and is bordered by the Columbia River to the north, Wasco and Sherman counties to the west, Morro and Grant counties to the east, and Wheeler County to the south. Originally located within the eastern region of Wasco County, the Legislative Assembly established Gilliam County on February 25, 1885. After the county was established, the town of Arlington, formerly known as Alkali, which had been platted in 1882, was named the county seat (Portland State University and the Oregon Historical Society, 2017). However, the county seat was moved to Condon, Oregon (formerly known as Summit Springs) in 1890.

### 3. Ownership

Marion T. Weatherford was born on October 9, 1906, near Arlington, Oregon “on his family’s wheat and cattle farm” (Burson, 2015). The farm became known for the Weatherford 16 Mule Team, which hauled wagons 26 miles to and from the railroad in Arlington. Between 1922 and 1942, Marion T. did not live at the family farm, although he visited regularly and “always kept in touch with current events in this community” (Burson, 2015). In 1942, after the death of his parents, Marion T. “returned to take over the farm with his wife Leona” (Burson, 2015). It was apparently at this time that Marion T. acquired the property on OR 19, known currently as the Marion T. Weatherford Ranch; it is also likely that at this time he acquired the barn, referred to as Weatherford Barn. After Marion T. returned to the community, he became involved in a number of local organizations during the 1940s and 1950s and established himself as an important figure within the community (Burson, 2015; Oregon State University, 2017).

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

## Montague ~~Wind Power~~Solar Facility: Draft ~~Phase 2~~ Historical Resource Mitigation Plan

integrity, including design, setting, location, feeling, and association. It remains significant as the oldest known barn in Gilliam County. As such, the property remains eligible for listing in the NRHP under Criterion A, for its association with the early agricultural history of the area.

### 4. Setting

The Weatherford Barn is located in an agricultural field north of Bottemiller Lane and west of OR 19 in Gilliam County, Oregon. OR 19, also known as the John Day Highway, connects Arlington in northern Gilliam County to Condon near the Gilliam County/Wheeler County line to the south. An approximately 3.9-mile segment of the highway crosses the ~~proposed expanded~~ site boundary ~~for Phase 2 of the MWPF~~ and is adjacent to the proposed solar area, battery storage system, and ~~Phase 2~~Montague 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 2~~solar 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 215 feet in elevation over the 3.9 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 turbines are located approximately 1.8 miles northwest of the Weatherford Barn.

### IV. Description of the Impacts Addressed by the Plan

In a letter dated March 1, 2019, regarding SHPO Case No. 10-0378, SHPO concluded that components of the certificate holder's ~~proposed Phase 2~~solar facilities near the Weatherford Barn would diminish the setting, feeling, and association of Weatherford Barn. 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 one of the mitigation options described in Section VI.

### V. Implementation of Setbacks

The ~~proposed Phase 2~~solar facilities near the Weatherford Barn include the solar array area, facility substation, battery storage system, and transmission lines. The solar array is approximately 1 mile wide and will extend along the west side of OR 19 for 2 miles between Bottemiller Lane and the southern boundary of the facility near Baseline Road. As ~~proposed~~approved, the solar array is set back 100 to 150 feet from the highway and will be arranged in orderly rows.

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 2~~Montague Solar 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~~solar facilities arrangement would have a significant adverse impact on the Weatherford Barn.



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2 To avoid a significant adverse impact, the certificate holder will continue to consult with  
3 the Oregon Department of Energy (Department) and SHPO on the relocation of ~~proposed Phase~~  
43 ~~2 facilities~~solar facility components to determine if a location exists that will result in no  
significant impact to the setting, feeling, and association of the Weatherford Barn. If no feasible  
facility location exists that avoids these impacts, the certificate holder will implement one of the  
mitigation actions provided in Section VI.

### 54 VI. Mitigation Measures

#### 65 1. Mitigation Option 1: Historic Barn Survey

76 The certificate holder would conduct a reconnaissance-level survey of up to 25 barns in  
87 Gilliam County built prior to 1950. This date is selected to focus the study on barns associated  
98 with the earlier period of the agricultural industry in the county. This project would include the  
409 following tasks.

4410 *Research* – Prior to conducting the fieldwork, an architectural historian would review the  
4211 Oregon Historic Sites Database to obtain background information about barns previously  
4312 inventoried in Gilliam County. In addition to the review of historical literature, maps, and  
4413 photos, this research would include communicating with the Gilliam County Historical Museum  
4514 staff to determine if the museum had recommendations about noteworthy barns in the area. The  
4615 architectural historian would communicate with SHPO to determine the type of forms on which  
4716 properties would be recorded.

4817 *Fieldwork* – A field investigation would be conducted and would include  
4918 (1) photographing barns identified from research and (2) photographing noteworthy barns  
2019 identified in the field. Photographs would be taken from the public right-of-way, unless property  
2420 owner allowed architectural historian on the property. Though some properties may be located  
2221 within a complex of historic buildings associated with a farmstead, the inventory would only  
2322 include the barn. Overview photographs showing the associated buildings as they relate to the  
2423 setting of the barn would be included.

2524 *Reporting* – Architectural historians would prepare a draft and final report including an  
2625 overview of the agricultural history of Gilliam County, a summary of common barn types and  
2726 forms found in the county, a description of the study area, methods used, summaries of  
2827 inventoried properties, and a map showing their locations. The draft report would be reviewed by  
2928 the Oregon SHPO. Comments would be addressed in a final report. Copies of inventory forms  
3029 would be submitted to SHPO.

#### 3430 2. Mitigation Option 2: Local Historical Society Exhibit

3231 The certificate holder would partner with a local historical society or other organization  
3332 to display an exhibit on Gilliam County historic barns. The certificate holder would hire a  
3433 consultant or museum to prepare a portable exhibit documenting the agricultural history of  
3534 Gilliam County as it relates to the development of historic barns. The exhibit would provide  
3635 architectural information about the different types, forms, materials and methods of construction  
3736 of barns in the county. This project would involve research in local repositories including the  
3837 Gilliam County Historical Museum and libraries to obtain historical photographs, maps, and  
3938 other research materials. The exhibit would consist of text, photos, and graphical information  
4039 mounted on portable display panels allowing it to be moved to different locations for display.  
4440 The exhibit would initially be installed at the Gilliam County Historical Museum, which is



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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. Mitigation Option 3: Contribution to Historical Organization Dedicated to Preserving the Agricultural History of Gilliam County**

The certificate holder would make a \$25,000 contribution to the Gilliam County Historical Museum to support the construction of a new building being erected to house agricultural artifacts such as tractors and other equipment donated to the museum, which focuses 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.

**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 to confirm the mitigation option selected.

**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.

**IX. References**

- Burson, Heather. 2015. *An Original Pioneer: Founder Marion T. Weatherford*. Oregon Aglink. October 2. Accessed June 6, 2017. <http://www.aglink.org/an-original-pioneer-abc-founder-marion-t-weatherford/>.
- Metsker Maps. 1934. *Gilliam County*. Page 026 – Township 1 N, Ranch 21 E, Rock Cr. Historic Map Works. Accessed June 7, 2017. <http://www.historicmapworks.com>.
- Oregon Historic Sites Database. 2017. *Weatherford Barn. Site Information*. Accessed July 18, 2017. [http://heritagedata.prd.state.or.us/historic/index.cfm?do=v.dsp\\_siteSummary&resultDisplay=37317](http://heritagedata.prd.state.or.us/historic/index.cfm?do=v.dsp_siteSummary&resultDisplay=37317).
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- Portland State University and the Oregon Historical Society. 2017. “Arlington.” *The Oregon Encyclopedia*. Accessed June 7, 2017. <https://oregonencyclopedia.org/articles/arlington/#WTgw32wkt3g>.
- Startz, Kathleen. 1987. “Weatherford Barn.” *Oregon Inventory of Historic Properties*. Historic Resource Survey Form.

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**Notice of the Right to Appeal**  
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