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To: Oregon Energy Facility Siting Council

From: Kellen Tardaewether, Senior Siting Analyst

Date: October 12, 2018

Subject: Agenda Item I (Information Item)
Wheatridge Wind Energy Facility - Council Review of the Draft Proposed Order on Request for Amendment 2, Comments and Recommendations for the October 25-26, 2018 EFSC Meeting

Background

The Oregon Energy Facility Siting Council (Council) issued a site certificate for the Wheatridge Wind Energy Facility (facility) on April 28, 2017, authorizing construction and operation of a wind-energy generation facility with a generation capacity up to 500 megawatts (MW). The facility has not yet been constructed. The facility site boundary includes approximately 13,097 acres of privately owned land within Morrow and Umatilla counties. The Council previously approved an amendment to the site certificate in July 2017.

Wheatridge Wind Energy, LLC (certificate holder) submitted a complete Request for Amendment 2 (amendment request or RFA2) of the Wheatridge Wind Energy Facility site certificate on September 17, 2018. The amendment request seeks Council approval for construction and operation of additional related or supporting facilities, including two proposed battery storage systems and its interconnection facilities (e.g. control house, protective device and power transformer). The proposed battery storage systems and its interconnection facilities would be located within Morrow and Umatilla counties, adjacent to previously approved but not yet constructed substation and operation and maintenance building sites.

On September 21, 2018, the Oregon Department of Energy (Department) issued public notice of a public comment period on the amendment request and draft proposed order, and of a public hearing on the draft proposed order to be held at 5:30 p.m. on October 25, 2018 at Boardman City Hall in Boardman, Oregon. The Department is accepting comments on the draft proposed order from September 21, 2018 through the close of the October 25, 2018 public hearing, which represents a 34-day comment period.

To date, the Department has not received substantive comments on the amendment request or draft proposed order, but has received one comment from Oregon Department of Fish and Wildlife confirming that, based upon compliance with previously imposed site certificate conditions, the reviewing agency had no additional comments or concerns. This comment is included as an attachment to this staff report; additional comments received between the date of this staff report and the October 25, 2018 public hearing will be provided electronically and in hard-copy under separate cover to Council, prior to the October 25, 2018 Council meeting. Consistent with Oregon Administrative Rule (OAR) 345-027-0071, the Council will review and provide comments to the Department on the draft proposed order at its October 26, 2018 meeting, where the Department will provide a description of the draft proposed order and comments received.

Following the Council's review and consideration of comments received on the record of the public hearing, staff will issue a proposed order in accordance with OAR 345-027-0071, taking into consideration the comments of the Council, public comments received on the record of the draft proposed order public hearing, and agency consultation. In conjunction with the issuance of the proposed order, the Department will issue a notice of an opportunity to request a contested case, which will include an opportunity for those who commented, either orally or in writing, on the record of the public hearing to request a contested case on the proposed order.

This memo is intended to assist the Council in its review of the draft proposed order and to assist the Council in providing comments to staff.

Staff Evaluation of Amendment Request and Summary of Draft Proposed Order

The draft proposed order addresses each of the Council standards, and recommends that the Council find that the facility, with proposed changes, would comply with, or, based on compliance with existing, recommended new and amended site certificate conditions would comply with each of the Council standards.

Pursuant to OAR 345-027-0050(4)(a), the Department assessed the amendment request to determine whether the proposed change could result in a significant adverse impact that affects a resource or interest protected by a Council standard that the Council has not addressed earlier, and whether the facility, with proposed changes, would remain in compliance without new or amended conditions. As presented in the draft proposed order, the Department recommends Council rely on its previous reasoning and analysis and recommends reliance on previously imposed site certificate conditions in its evaluation of the ability of the facility, with proposed changes, to maintain compliance for the following standards:

- Protected Areas
- Fish and Wildlife
- Historic, Cultural and Archeological Resources
- Recreation
- Waste Minimization

- Cumulative Effects Standard for Wind Energy Facilities
- Siting Standards for Transmission Lines
- Noise Control Regulation
- Removal Fill Law
- Water Rights

Based on the potential impacts from construction and operation of the proposed battery storage systems and its interconnection facilities, the draft proposed order includes recommended findings for recommended new or amended conditions for the following standards:

- **General Standard of Review (Recommended Amended Condition):** Recommended administrative amendment to construction commencement and completion deadline conditions, to clarify specific dates instead of a timeframe based on “site certificate execution date”
- **Organizational Expertise (Recommended New Condition):** Recommended new condition requiring that the certificate holder provide evidence to the Department of a contractual agreement with a licensed third-party for transport and disposal of battery and battery waste prior to and during facility construction and operation
- **Structural Standard (Recommended Amended Condition):** Recommended substantive condition amendment requiring that the certificate holder, prior to construction, submit a protocol to the Department and DOGAMI to ensure that agency comments are considered prior to completing the site specific geo-technical investigation
- **Soil Protection (Recommended Amended Condition):** Recommended administrative amendment to condition requiring implementation of an Operational Spill Prevention Countermeasure and Control Plan, or a Spill Prevention and Management Plan, based on programmatic function of Oregon Department of Environmental Quality’s Hazardous Waste Program, and specify that the requirements apply to materials contained within and associated with the proposed battery storage systems
- **Land Use (Recommended Amended Condition):** Recommended substantive condition amendment requiring that the certificate holder, prior to construction, provide a third-party technical report to the Department and counties upon submission of the building permit application to allow the counties an opportunity to evaluate suitability of the proposed fire suppression system, hazards and mitigation, and design requirements
- **Retirement and Financial Assurance (Recommended New and Amended Conditions):** Recommended new condition requiring that, during operation, the certificate holder conduct monthly inspections of the proposed battery storage systems, and provide inspection documentation to the Department in its annual compliance report; and, to provide evidence of active property coverage under its commercial business insurance from high-loss catastrophic events. Recommended administrative condition amendment based upon increase in retirement cost estimate and pre-construction bond or letter of credit amount necessary for site restoration.

- **Threatened and Endangered Species (Recommended Amended Condition):** Recommended administrative condition amendment to specify the area to be included in pre-construction plant surveys
- **Scenic Resources (Recommended Amended Conditions):** Recommended administrative condition amendments to specify that light reducing measures and requirements to use neutral-color building finishes apply to the proposed battery storage systems
- **Public Services (Recommended Amended Condition):** Recommended substantive condition amendment requiring the certificate holder to include in its Operational Waste Management Plan onsite handling procedures in accordance with 49 Code of Federal Regulations 173.185 provisions, and appropriate employee training for handling, replacement and storage of damaged, defective or recalled batteries
- **Public Health and Safety Standards for Wind Facilities (Recommended Amended Condition):** Recommended administrative condition change requiring that the certificate holder, based on its representation, design, construct and operate the proposed battery storage systems to include fencing and locked gates to restrict public access and potential safety issues

Based on compliance with existing, recommended new and amended conditions, as summarized above and as described in the draft proposed order, the Department recommends that Council conclude that the facility, with proposed changes, would continue to comply with all applicable Council standards and other applicable rules and statutes, and that the Council should approve the final order and issue an amended site certificate.

Staff Recommendations

The Department recommends that Council direct staff to include administrative changes and modifications from the draft proposed order to proposed order. Recommended administrative changes include updates to procedural history and conversion of the “draft proposed order” to “proposed order.”

Additional recommended changes include addressing comments received on the draft proposed order. Further, the Department recommends Council direct staff to administratively remove reference in Section III.B *Organizational Expertise* of the draft proposed order of recommended amendments to Public Services Condition 13 (PRE-PS-05); this was an erroneous reference as the condition was not recommended to be amended in the order.

Attachments

Attachment 1: Draft Proposed Order on Request for Amendment 2

Attachment 2: Draft Proposed Order Comments (received by October 12, 2018)

Attachment 1: Draft Proposed Order on Request for Amendment 2

Wheatridge Wind Energy Facility Request for Amendment 2: Draft Proposed Order

To: Oregon Energy Facility Siting Council
From: Sarah Esterson, Senior Siting Analyst
Date: September 21, 2018
Re: Draft Proposed Order on Request for Amendment 2 (Battery Storage Systems)

Certificate Holder: Wheatridge Wind Energy, LLC, a wholly-owned subsidiary of NextEra Energy Resources, LLC.

Approved Facility

(Not Yet Constructed): Approved, but not yet constructed 500 megawatt (MW) wind energy generation facility. The approved facility consists of up to 292 wind turbines with related or supporting facilities that include an electrical collection system, collector substations, meteorological towers, communication and supervisory control systems and data acquisition systems (SCADA), operations and maintenance (O&M) buildings, new or improved access roads, and temporary construction areas. The approved facility also includes up to four routing options of up to 32 miles of two parallel overhead 230-kilovolt (kV) intraconnection transmission lines.

Proposed Amendments: Related or supporting facilities: Two battery storage systems (20 and 30 megawatt, each) and its interconnection facilities (control house, protective device, and power transformer)

Proposed Location: Previously approved facility site boundary, including related or supporting facilities, located within Umatilla and Morrow counties.

Staff Recommendation: Approval of Request for Amendment 2 of Site Certificate.

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 OAR 345, Divisions 22 through 24 as well as all other Oregon statutes and administrative rules applicable to the facility, with proposed changes.

As staff to EFSC, the Oregon Department of Energy (ODOE or the Department) reviewed Request for Amendment 2 to the Wheatridge Wind Energy Facility Site Certificate, in consultation with state and local reviewing agencies. Based upon its review of the amendment request, the Department recommends the Council issue an amended site certificate for the facility, with proposed changes, subject to the existing and recommended new and amended site certificate conditions. 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. In addition, the Council will hold a public hearing on this draft proposed order on October 25, 2018 at 5:30 PM, at Boardman City Hall, 200 City Center Circle Boardman, 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, in order to preserve their right to participate further in the process. The public comment period extends through the close of the public hearing on October 25, 2018. Written or oral comments must be received by the Department by October 25, 2018. Section II.B, *Amendment Review Process*, of the draft proposed order contains additional information regarding the site certificate amendment review process. The public notice associated with the release of this draft proposed order contains additional information regarding the comment period and public hearing.

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

In the Matter of Request for Amendment 2 for the
Wheatridge Wind Energy Facility

)
) DRAFT PROPOSED ORDER ON
) REQUEST FOR AMENDMENT 2 TO
) THE SITE CERTIFICATE

September 21, 2018

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- Attachment B: Reviewing Agency Comments on preliminary Request for Amendment 2
- Attachment C: [Reserved for Draft Proposed Order Comments/Index]
- Attachment D: Draft Habitat Mitigation Plan
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- Attachment F: Wildlife Monitoring and Management Plan

1 **I. INTRODUCTION**
2

3 The Oregon Department of Energy (Department or ODOE) issues this draft proposed order, in
4 accordance with Oregon Revised Statute (ORS) 469.405(1) and OAR 345-027-0065, based on its
5 review of Request for Amendment 2 (amendment request or RFA2) to the Wheatridge Wind
6 Energy Facility site certificate, as well as comments and recommendations received by specific
7 state agencies and local governments. The certificate holder is Wheatridge Wind Energy, LLC,
8 (hereinafter referred to as “Wheatridge” or certificate holder) which is a wholly owned
9 subsidiary of NextEra Energy Resources, LLC (NextEra or NEER).

10
11 The certificate holder requests that the Energy Facility Siting Council (EFSC or Council) approve
12 changes to the site certificate to allow construction and operation of two proposed battery
13 storage systems and interconnection facilities as related or supporting facilities to the
14 previously approved wind energy facility, including the following:
15

- 16 • Series of modular containers or a building per system (approximately 80 feet long, 100
17 feet wide and 15-20 feet tall for the 20 MW system); approximately 190 feet long, 100
18 feet wide and 15-20 feet tall for the 30 MW system)
 - 19 ○ Each system would contain lithium-ion batteries within battery modules
20 anchored racks within containers or building.
 - 21 ○ Approximately eighteen 2.7 mega-voltampere (MVA) inverters with associated
22 step up transformers with a combined footprint approximately 8 feet by 4 feet.
 - 23 ○ Each system would be equipped with a gas pressured deluge fire suppression
24 system, independent smoke detection system, and external fire water tank
 - 25 ○ Each system would include a cooling system comprised of a bank of four power
26 conditioning system fan units with motor
- 27 • Control house, approximately 16 by 11 feet, with an external heating, ventilation and air
28 conditioning unit (HVAC)
- 29 • Protective device; skid-mounted power transformer; and bi-directional inverter

30
31 Based upon review of this amendment request, in conjunction with comments and
32 recommendations received by state agencies and local government entities, the Department
33 recommends that the Council approve and grant an amendment to the Wheatridge Wind
34 Energy Facility site certificate subject to the existing, new, and recommended amended
35 conditions set forth in this draft proposed order.
36

37 **I.A. Name and Address of Certificate Holder**
38

39 Wheatridge Wind Energy, LLC
40 700 Universe Boulevard
41 Juno Beach, Florida 33408
42
43

1 **Parent Company of the Certificate Holder**

2 NextEra Energy Resources, LLC
3 FEW/JB
4 700 Universe Boulevard
5 Juno Beach, Florida 33408

6
7 **Certificate Holder Contact**

8 Jesse Marshall
9 Wheatridge Wind Energy, LLC
10 700 Universe Boulevard
11 Juno Beach, Florida 33408

12

13 **I.B. Description of the Approved Facility**

14

15 The Wheatridge Wind Energy Facility (facility) site certificate, effective May 24, 2017,
16 authorizes construction and operation of a 500 megawatt (MW) wind energy generation
17 facility, to be located within both Morrow and Umatilla counties. The facility has not yet been
18 constructed but is approved for up to 292 wind turbines and up to 32 miles of up to two parallel
19 overhead 230-kilovolt (kV) intraconnection transmission lines that would traverse one of four
20 approved routing options, described below. Additional previously approved related or
21 supporting facilities to the energy facility include an electrical collection system, up to three
22 collector substations, meteorological towers, communication and supervisory control systems
23 and data acquisition systems (SCADA), operations and maintenance (O&M) buildings, new or
24 improved access roads, and temporary construction areas.

25

26 **I.C. Description of Approved Facility Site Location**

27

28 *Site Boundary*

29

30 The facility site boundary includes approximately 13,097 acres of private land, within Morrow
31 and Umatilla counties, and includes the perimeter of the energy facility site, all temporary
32 laydown, staging areas and intraconnection transmission corridors.

33

34 The energy facility site is divided into two groups, Wheatridge West and Wheatridge East.
35 Wheatridge West is located entirely within Morrow County, bisected by Oregon Highway
36 207, approximately 5 miles northeast of Lexington and approximately 7 miles northwest of
37 Heppner. Wheatridge East is located approximately 16 miles northeast of Heppner and
38 includes land in both Morrow and Umatilla counties. Wheatridge West and Wheatridge East
39 will be connected via a 230 kV transmission line or “intraconnection” transmission line (see
40 Figure 1, *Facility Location* below).

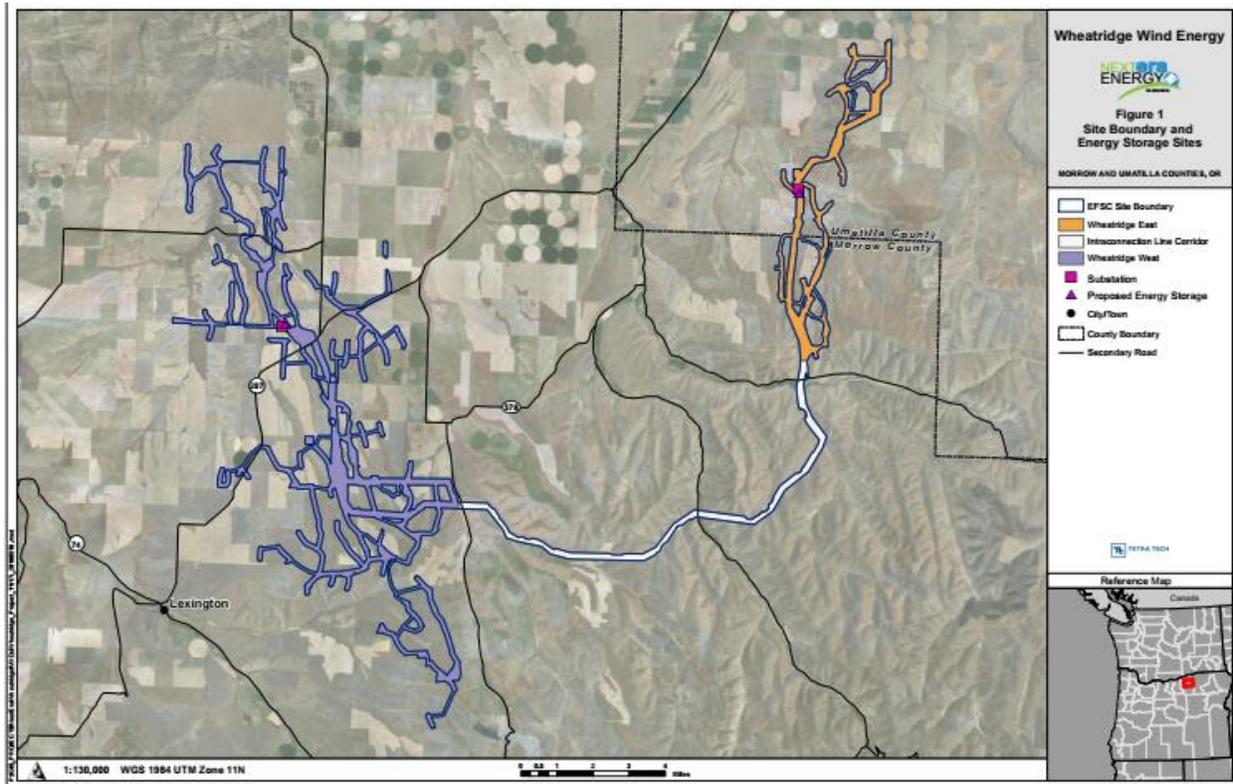
41

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44

1 **Figure 1: Facility Location**
 2



3
 4 *Micrositing Corridor*

5
 6 For this facility, the site boundary represents the micrositing corridor, and is a minimum of
 7 approximately 660 feet in width around turbines. The site boundary width around site access
 8 roads and electrical collection lines (collector lines) is narrower, between 200 feet and 500 feet
 9 in width. The micrositing corridor is wider for the area surrounding the substations,
 10 meteorological towers (met towers), O&M buildings, and construction yards.

11
 12 *Intraconnection Transmission Line Corridors*

13
 14 The certificate holder obtained approval of four routing options for the 230 kV intraconnection
 15 transmission line that interconnects Wheatridge West and Wheatridge East for the
 16 transmission of generated power. The intraconnection transmission line corridor is
 17 approximately 1,000-feet in width and ranges in length from 24.5 to 31.5 miles, based upon the
 18 four approved transmission line route options.

19
 20 The approved 230 kV intraconnection transmission line route options, as presented in ASC
 21 Exhibit C (Figures C-4a through C-4d), are summarized below:

- 22
 23
 - Option 1: 31.5-mile 230 kV intraconnection transmission line extending from
 24 Wheatridge East Substation 3 to Wheatridge West Substation 1.

- 1
- 2 • Option 2: 31.3-mile 230 kV intraconnection transmission line extending from
- 3 Wheatridge East Substation 3 to Wheatridge West Substation 2b, and then to
- 4 Wheatridge West Substation 2a (alternate).
- 5
- 6 • Option 3: 24.5-mile 230 kV intraconnection transmission line extending from
- 7 Wheatridge West Substation 1 to Wheatridge East Substation 3.
- 8
- 9 • Option 4: 27.8 mile 230 kV intraconnection transmission line extending from
- 10 Wheatridge West Substation 2a to Wheatridge West Substation 2b, and then to
- 11 Wheatridge East Substation 3.
- 12

13 **I.D. Procedural History**

14

15 The Council issued the *Final Order on the Application for Site Certificate* for the Wheatridge
16 Wind Energy Facility (Final Order on ASC) on April 28, 2017. The site certificate became
17 effective on May 24, 2017. On June 14, 2017, the certificate holder submitted Request for
18 Amendment 1 (RFA1) of the site certificate, requesting to transfer certificate holder ownership
19 from Swaggart Wind Power, LLC to a new parent company, NextEra Energy Resources, LLC. The
20 Council issued the final order and first amended site certificate on July 27, 2017. The first
21 amended site certificate became effective on August 17, 2017.

22

23 **II. AMENDMENT PROCESS**

24

25 **II.A. Requested Amendment**

26

27 *Proposed Related or Supporting Facilities*

28

29 The certificate holder requests Council approval to amend the site certificate to allow
30 construction and operation of additional related or supporting facilities, including two proposed
31 battery storage systems and interconnection facilities (e.g. control house, protective device and
32 power transformer) (see Figure 2, *Battery Storage System Layout* below).

33

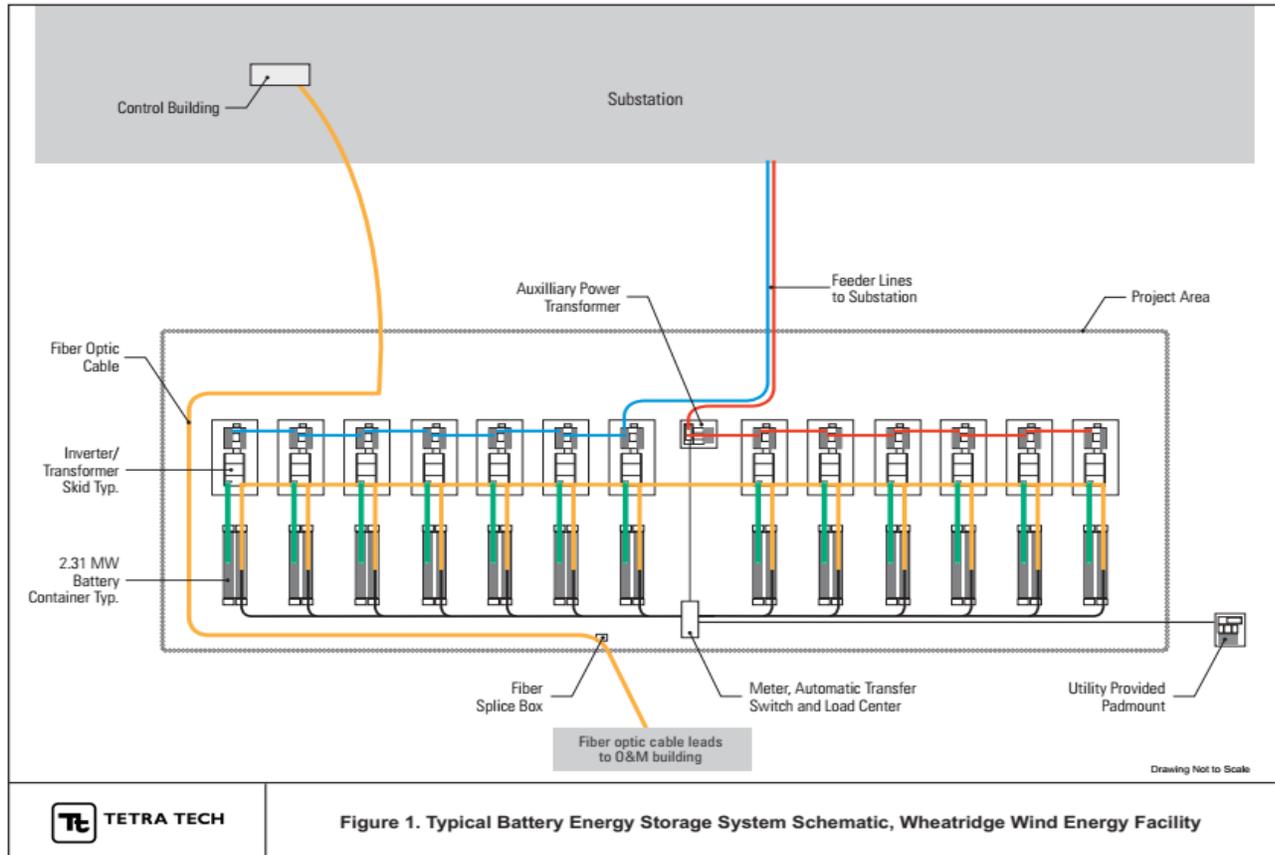
34 The proposed battery storage systems would be 20 and 30 MW, each located on up to 5 acres
35 adjacent to previously approved but not yet constructed fenced substation and O&M building
36 sites in previously approved site boundary and micro-siting area within Morrow and Umatilla
37 counties (see Figure 1, *Facility Location* above).

38

39 The certificate holder describes that the proposed battery storage systems would allow energy
40 generated from the wind facility to be stored and distributed to the grid, as needed.¹

¹ WRWAMD2Doc11 Complete Request for Amendment 2 2018-09-17. The certificate holder describes that the proposed battery storage systems “would not be built but for the construction and operation of the energy facility” and therefore meet the OAR 345-001-0010(51) definition of a related or supporting facility.

1 **Figure 2: Battery Storage System Layout**



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Components of the proposed battery storage systems and its interconnection facilities are described below.

Proposed Battery Storage Systems and Interconnection Facilities

The preliminary design of the proposed battery storage systems, as described in RFA2, would include the following components:

- Series of modular containers or a building per system (approximately 80 feet long, 100 feet wide and 15-20 feet tall for the 20 MW system); approximately 190 feet long, 100 feet wide and 15-20 feet tall for the 30 MW system)
 - Each system would contain lithium-ion batteries within battery modules anchored racks within containers or building.
 - Approximately eighteen 2.7 mega-voltampere (MVA) inverters with associated step up transformers with a combined footprint approximately 8 feet by 4 feet.
 - Each system would be equipped with a gas pressured deluge fire suppression system, independent smoke detection system, and external fire water tank
 - Each system would include a cooling system comprised of a bank of four power conditioning system fan units with motor

- 1 • Control house, approximately 16 feet by 11 feet, with an external heating, ventilation
2 and air conditioning unit (HVAC)
- 3 • Protective device; skid-mounted power transformer; and bi-directional inverter
4

5 As described in RFA2, battery and inverter equipment would be electrically connected via a
6 combination of aboveground cable trays, underground conduit, and covered cable trenches.
7 Site surfacing would remain primarily gravel. The proposed battery storage systems would
8 interconnect with facility substations via feeder lines.
9

10 In RFA2, the certificate holder explains that only two of the four previously approved 230 kV
11 intraconnection transmission line routing options, Options 1 and 3, would apply if the battery
12 storage systems are included in the final facility design (*see Section I.C. Description of Approved
13 Facility Site Location*).

14
15 The certificate holder has not specifically requested amendments to site certificate conditions,
16 though as described in this DPO, the Department recommends new and amended conditions.
17

18 **II.B. Amendment Review Process**

19
20 Council rules describe the processes for transfers, Type A, Type B, and Type C review of a
21 request for amendment at OAR 345-027-0051. The Type A review is the standard or “default”
22 site certificate amendment process for changes that require an amendment. Type C review
23 process is associated with construction-related changes. The key procedural difference
24 between the Type A and Type B review is that the Type A review includes a public hearing on
25 the draft proposed order and an opportunity to request a contested case proceeding. The
26 primary timing differences between Type A and Type B review are in the maximum allowed
27 timelines for the Department’s determination of completeness of the preliminary request for
28 amendment, as well as the issuance of the draft proposed order, and proposed order. It is
29 important to note that Council rules authorize the Department to adjust the timelines for these
30 specific procedural requirements, if necessary.
31

32 On April 9, 2018, the certificate holder submitted a Type B review amendment determination
33 request (Type B Review ADR) for Request for Amendment 2 (RFA2), requesting the
34 Department’s review and determination of whether, based on evaluation of the OAR 345-027-
35 0057(8) factors, the amendment request could be reviewed under the Type B review process.
36 At the time of the Type B Review ADR submittal, RFA2 had not been submitted to the
37 Department. That ADR included two requested amendment components: the battery storage
38 systems, as well as the option to use a proposed differing wind turbine model than was
39 previously considered by Council. Pursuant to OAR 345-027-0057(6), on April 25, 2018, the
40 Department issued a written determination to the certificate holder stating that the
41 modifications proposed, to be included in the RFA, be processed under the Type A review
42 process. On May 18, 2018, the certificate holder re-submitted a Type B Review ADR for that
43 RFA, and also submitted a preliminary request for amendment (pRFA). Within the Type B
44 Review ADR, the certificate holder requested that the Department reconsider its previous

1 determination that Type A review be maintained. In addition, the certificate holder requested
2 that the Department provide separate amendment review determinations for the modifications
3 to the wind turbines and for the battery storage additions. In a letter issued on June 14, 2018,
4 the Department concluded that Type A review be maintained for the proposed changes in wind
5 turbine model and battery storage systems, even if separated into two separate and distinct
6 amendment requests.

7
8 OAR 345-027-0057(7) allows that, at the request of the certificate holder, the Department's
9 determination must be referred to the Council for concurrence, modification, or rejection. The
10 certificate holder requested to refer the Department's Type A review determination to Council
11 for its consideration. Additionally, the certificate holder requested that the Council provide
12 separate decisions on amendment review pathways for the proposed wind turbine changes and
13 battery storage systems.

14
15 At its June 29, 2018 meeting, the Council evaluated the Department's separate determinations
16 for the turbine modifications and the battery storage systems. The Council concurred that Type
17 A review be maintained for the proposed battery storage systems, but determined that the
18 proposed option to use a differing wind turbine model could be processed under Type B review.
19 In response, the certificate holder separated the amendment components and submitted two
20 separate amendment requests. The proposed battery storage systems are presented in RFA2
21 and the proposed wind turbine model option are presented in RFA3.²
22 The certificate holder submitted a complete RFA2 on September 17, 2018. On September 21,
23 2018 the Department posted the complete RFA2 on its website and posted an announcement
24 on the project website informing the public that the complete RFA2 had been received and is
25 available for viewing.

26
27 *Reviewing Agency Comments on Request for Amendment 2*

28
29 The Department received comments on pRFA2 from the reviewing agencies listed below:

- 30
31
- 32 • Oregon Department of Aviation
 - 33 • Oregon Department of Fish and Wildlife
 - 34 • Morrow County (Special Advisory Group)
 - 35 • Umatilla County (Special Advisory Group)

36 Comments from these agencies are incorporated into the Department's analysis of Council
37 standards below, as applicable, and provided in Attachment B.

38

² NextEra also submitted a complete Request for Amendment 3 (RFA3) on September 17, 2018 requesting Council approval to use a differing wind turbine model option. As discussed, RFA3 is being reviewed under the Type B review process.

1 **II.C. Council Review Process**
2

3 On September 21, 2018, the Department issued the draft proposed order, and a notice of
4 public hearing and comment period on RFA2 and the draft proposed order (notice). The notice
5 was distributed to all persons on the Council’s general mailing list, to the special mailing list
6 established for the facility, to an updated list of property owners supplied by the certificate
7 holder, and to a list of reviewing agencies as defined in OAR 345-001-0010(52).
8

9 The comment period extends through the close of the public hearing scheduled to occur on
10 October 25, 2018 at 5:30 p.m. at Boardman City Hall in Boardman, Oregon. In addition to
11 accepting written comments during the comment period, the Council will also accept oral
12 testimony at the public hearing. The record of the draft proposed order will close at the
13 conclusion of the public hearing on October 25, 2018, as described in the public notice issued
14 concurrently with the DPO.
15

16 Following the close of the record of the public hearing and Council’s review of the draft
17 proposed order, the Department will issue a proposed order, taking into consideration Council
18 comments, any comments received “on the record of the public hearing” (i.e., oral testimony
19 provided at the public hearing and written comments received by the Department after the
20 date of the notice of the public hearing and before the close of the public hearing comment
21 period), including any comments from reviewing agencies, special advisory groups, and Tribal
22 Governments. Concurrent with the issuance of the proposed order, the Department will issue a
23 notice of contested case and a public notice of the proposed order.³ Only those persons who
24 comment in person or in writing on the record of the public hearing may request a contested
25 case proceeding. Additionally, to raise an issue in a contested case proceeding, the issue must
26 be within Council jurisdiction, and the person must have raised the issue on the record of the
27 public hearing with “sufficient specificity to afford the Council, the Department, and the
28 certificate holder an adequate opportunity to respond to the issue.”⁴
29

30 In making a decision to grant or deny issuance of an amended site certificate, the Council shall
31 apply the applicable laws and Council standards required under OAR 345-027-0075(2) and in
32 effect on the dates described in OAR 345-027-0075(3). The Council’s final order is subject to
33 judicial review by the Oregon Supreme Court. Only a party to the contested case proceeding
34 may request judicial review and the issues on appeal are limited to those raised by the parties
35 to the contested case proceeding. A petition for judicial review of the Council’s approval or
36 rejection of an application for a site certificate (ASC) or amended site certificate must be filed
37 with the Supreme Court within 60 days after the date of service of the Council’s final order or
38 within 30 days after the date of a petition for rehearing is denied or deemed denied.⁵
39

³ See OAR 345-027-0071.

⁴ OAR 345-027-0071(7).

⁵ ORS 469.403 and OAR 345-027-0071(12).

1 **II.D. Applicable Division 27 Rule Requirements**
2

3 A site certificate amendment is necessary under OAR 345-027-0050(4) because the certificate
4 holder requests to design, construct, and operate the facility in a manner different from the
5 description in the site certificate, and the proposed changes: (1) could result in a significant
6 adverse impact to a resource or interest protected by a Council standard that the Council has
7 not addressed in an earlier order; (2) could impair the certificate holder’s ability to comply with
8 a site certificate condition; or (3) could require new conditions or modification to existing
9 conditions in the site certificate, or could meet more than one of these criteria.

10
11 The Type A amendment review process (consisting of OARs 345-027-0059, -0060, -0063, -0065,
12 -0067, -0071 and -0075) is the default amendment review process and shall apply to the
13 Council’s review of a request for amendment proposing a change described in OAR 345-027-
14 0050(2), (3), and (4).⁶

15
16 **III. REVIEW OF THE REQUESTED AMENDMENT**
17

18 Under ORS 469.310, the Council is charged with ensuring that the “siting, construction and
19 operation of energy facilities shall be accomplished in a manner consistent with protection of
20 the public health and safety.” ORS 469.401(2) further provides that the Council must include in
21 the amended site certificate “conditions for the protection of the public health and safety, for
22 the time for completion of construction, and to ensure compliance with the standards, statutes
23 and rules described in ORS 469.501 and ORS 469.503.”⁷ The Council implements this statutory
24 framework by adopting findings of fact, conclusions of law, and conditions of approval
25 concerning the amended facility’s compliance with the Council’s Standards for Siting Facilities
26 at OAR 345, Divisions 22, 24, 26, and 27.

27
28 This draft proposed order includes the Department’s initial analysis of whether the proposed
29 changes meet each applicable Council Standard (with mitigation and subject to compliance with
30 existing and recommended new and amended conditions, as applicable), based on the
31 information in the record. Following the written comment period and hearing on the draft
32 proposed order, the Department will issue its proposed order, which will include the
33 Department’s consideration of the comments and any additional evidence received on the
34 record of the draft proposed order.

35
36 **III.A. General Standard of Review: OAR 345-022-0000**
37

38 *(1) To issue a site certificate for a proposed facility or to amend a site certificate, the*
39 *Council shall determine that the preponderance of evidence on the record supports the*
40 *following conclusions:*
41

⁶ OAR 345-027-0051(2).

⁷ ORS 469.401(2).

1 (a) The facility complies with the requirements of the Oregon Energy Facility Siting
2 statutes, ORS 469.300 to ORS 469.570 and 469.590 to 469.619, and the standards
3 adopted by the Council pursuant to ORS 469.501 or the overall public benefits of the
4 facility outweigh the damage to the resources protected by the standards the facility
5 does not meet as described in section (2);
6

7 (b) Except as provided in OAR 345-022-0030 for land use compliance and except for
8 those statutes and rules for which the decision on compliance has been delegated by
9 the federal government to a state agency other than the Council, the facility
10 complies with all other Oregon statutes and administrative rules identified in the
11 project order, as amended, as applicable to the issuance of a site certificate for the
12 proposed facility. If the Council finds that applicable Oregon statutes and rules, other
13 than those involving federally delegated programs, would impose conflicting
14 requirements, the Council shall resolve the conflict consistent with the public interest.
15 In resolving the conflict, the Council cannot waive any applicable state statute.

16 * * *

17 (4) In making determinations regarding compliance with statutes, rules and ordinances
18 normally administered by other agencies or compliance with requirement of the Council
19 statutes if other agencies have special expertise, the Department of Energy shall consult
20 such other agencies during the notice of intent, site certificate application and site
21 certificate amendment processes. Nothing in these rules is intended to interfere with the
22 state's implementation of programs delegated to it by the federal government.
23

24 **Findings of Fact**

25
26 OAR 345-022-0000 provides the Council's General Standard of Review and requires the Council
27 to find that a preponderance of evidence on the record supports the conclusion that the
28 facility, with proposed changes, would comply with the requirements of EFSC statutes and the
29 siting standards adopted by the Council and that the facility, with proposed changes, would
30 comply with all other Oregon statutes and administrative rules applicable to the issuance of an
31 amended site certificate for the facility.⁸
32

33 The requirements of OAR 345-022-0000 are discussed in the sections that follow. The
34 Department consulted with other state agencies, Morrow County Board of Commissioners and
35 Umatilla County Board of Commissioners during review of pRFA2 to aid in the evaluation of
36 whether the facility, with proposed changes, would maintain compliance with statutes, rules
37 and ordinances otherwise administered by other agencies. Additionally, in many circumstances

⁸ OAR 345-022-0000(2) and (3) apply to RFAs where a certificate holder has shown that the proposed amendments cannot meet Council standards or has shown that there is no reasonable way to meet the Council standards through mitigation or avoidance of adverse effects to protected resources; and, for those instances, establish criteria for the Council to evaluate in making a balancing determination. The certificate holder does not assert that the proposed amendments cannot meet an applicable Council standard. Therefore, OAR 345-022-0000(2) and (3) do not apply to this review.

1 the Department relies upon these reviewing agencies' special expertise in evaluating
2 compliance with the requirements of Council standards.

3
4 Certificate Expiration (OAR 345-025-0006)

5
6 Under OAR 345-025-0060(4), the certificate holder must begin construction of the facility, with
7 proposed changes, no later than the construction beginning date specified by Council in the site
8 certificate, unless an amendment is requested and granted. The certificate holder has not
9 requested to extend the previously imposed construction commencement or construction
10 deadlines, as previously imposed in General Standard Conditions 1 and 2 (GEN-GS-01 and GEN-
11 GS-02). The previously imposed conditions establish commencement and construction
12 deadlines based on three and six years, respectively, from the effective date of the site
13 certificate, but did not include specific dates. Because this is the second amendment request,
14 and to avoid unnecessary ambiguity in established deadlines, the Department recommends
15 Council amend General Standard Conditions 1 and 2 (GEN-GS-01 and GEN-GS-02), as presented
16 below, to reference specific dates and require that the certificate holder provide the
17 Department written notification of construction commencement and completion. The site
18 certificate became effective on May 24, 2017.

19
20 **Recommended Amended General Standard Condition 1 (GEN-GS-01):** The certificate
21 holder shall begin construction of the facility by May 24, 2020~~within three years after~~
22 ~~the effective date of the site certificate. Under OAR 345-015-0085(9), the site certificate~~
23 ~~is effective upon execution by the Council chair and the applicant. On or before May 24,~~
24 2020, the certificate holder shall provide written notification to the Department that it
25 has met the construction commencement deadline. Construction is defined in OAR 345-
26 001-0010.

27 [Final Order on ASC, Mandatory Condition OAR 345-025-0006(4); Amended in Final
28 Order on AMD2]

29
30 **Recommended Amended General Standard Condition 2 (GEN-GS-02):** The certificate
31 holder shall complete construction of the facility by May 24, 2023~~within six years after~~
32 ~~the effective date of the site certificate. The certificate holder shall promptly notify the~~
33 Department of the date of completion of construction.

34 [Final Order on ASC, Mandatory Condition OAR 345-025-0006(4); Amended in Final
35 Order on AMD2]

36
37 *Mandatory and Site-Specific Conditions in Site Certificates [OAR 345-025-0006 and OAR 345-*
38 *025-0010]*

39
40 OAR 345-025-0006 lists certain mandatory conditions that the Council must adopt in every site
41 certificate. The Council's October 2017 rule changes moved the mandatory conditions from
42 Division 27 to Division 25. As such, the Department recommends Council administratively
43 amend the rule citations included in the following mandatory and site-specific conditions: GEN-

1 GS-03, GEN-GS-04, GEN-GS-05, GEN-GS-06, GEN-GS-07, GEN-GS-08, GEN-GS-09, GEN-GS-10,
2 GEN-GS-11, GEN-RF-01, PRE-RF-01, OPR-GS-01, RET-RF-01, RET-RF-02, and GEN-GS-12.⁹

3
4 **Conclusions of Law**

5
6 Based on the foregoing findings of fact and conclusions of law, and subject to compliance with
7 the existing and recommended new and amended site certificate conditions the Department
8 recommends that the Council find that the facility, with proposed changes, would continue to
9 satisfy the requirements of OAR 345-022-0000.

10
11 **III.B. Organizational Expertise: OAR 345-022-0010**

12
13 *(1) To issue a site certificate, the Council must find that the applicant has the*
14 *organizational expertise to construct, operate and retire the proposed facility in*
15 *compliance with Council standards and conditions of the site certificate. To conclude that*
16 *the applicant has this expertise, the Council must find that the applicant has*
17 *demonstrated the ability to design, construct and operate the proposed facility in*
18 *compliance with site certificate conditions and in a manner that protects public health*
19 *and safety and has demonstrated the ability to restore the site to a useful, non-*
20 *hazardous condition. The Council may consider the applicant's experience, the*
21 *applicant's access to technical expertise and the applicant's past performance in*
22 *constructing, operating and retiring other facilities, including, but not limited to, the*
23 *number and severity of regulatory citations issued to the applicant.*

24
25 *(2) The Council may base its findings under section (1) on a rebuttable presumption that*
26 *an applicant has organizational, managerial and technical expertise, if the applicant has*
27 *an ISO 9000 or ISO 14000 certified program and proposes to design, construct and*
28 *operate the facility according to that program.*

29
30 *(3) If the applicant does not itself obtain a state or local government permit or approval*
31 *for which the Council would ordinarily determine compliance but instead relies on a*
32 *permit or approval issued to a third party, the Council, to issue a site certificate, must*
33 *find that the third party has, or has a reasonable likelihood of obtaining, the necessary*
34 *permit or approval, and that the applicant has, or has a reasonable likelihood of entering*
35 *into, a contractual or other arrangement with the third party for access to the resource*
36 *or service secured by that permit or approval.*

37

⁹ At the October 19, 2017 meeting, the Council approved a rulemaking project to reorganize Division 27 and rewrite its rules governing requests for amendments to site certificates. A component of this rulemaking was the renumbering of OAR 345-027-0006 (previous reference for mandatory conditions), to OAR 345-025-0006 (new reference for mandatory conditions) as well as the renumbering of site-specific condition from OAR 345-025-0023 to OAR 345-025-0010. The effective date of this rule change was October 24, 2017.

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

8
9 **Findings of Fact**

10
11 Subsections (1) and (2) of the Council’s Organizational Expertise standard require that the
12 certificate holder demonstrate its ability to design, construct and operate the facility, with
13 proposed changes, in compliance with Council standards and all site certificate conditions, and
14 in a manner that protects public health and safety, as well as its ability to restore the site to a
15 useful, non-hazardous condition. The Council may consider the certificate holder’s experience
16 and past performance in constructing, operating and retiring other facilities in determining
17 compliance with the Council’s Organizational Expertise standard. Subsections (3) and (4)
18 address third party permits.

19
20 *Compliance with Council Standards and Site Certificate Conditions*

21
22 The Council may consider a certificate holder’s past performance, including but not limited to
23 the quantity or severity of any regulatory citations in the construction or operation a facility,
24 type of equipment, or process similar to the facility, in evaluating whether a proposed change
25 may impact the certificate holder’s ability to design, construct and operate a facility in
26 compliance with Council standards and site certificate conditions.¹⁰ To evaluate whether the
27 proposed battery storage systems would impact the certificate holder’s ability to comply with
28 Council standards and site certificate conditions, the Department evaluates the certificate
29 holder’s relevant experience constructing and operating similar systems and whether any
30 regulatory citations have been received for its facilities.

31
32 Wheatridge Wind Energy, LLC, is a project-specific LLC and therefore relies upon the
33 organizational expertise and experience of its parent company, NextEra.¹¹ The certificate holder
34 states that NextEra has not received any regulatory citations, nor has it received any North
35 American Energy Reliability Corporation (NERC) violations, for the operation of an EFSC-

¹⁰ OAR 345-021-0010(1)(d)(D)

¹¹ As noted in the Council’s *Final Order on Amendment 1*, the certificate holder’s parent company, NextEra, maintains approximately 66 billion dollars in capital and produces approximately 19,882 MW of energy from 175 facilities located throughout the United States and Canada. NextEra maintains a workforce of approximately 5,000 professionals that are employed in fields such as operations and maintenance, development, environmental services, construction, engineering, and legal services.

1 jurisdictional wind facility (Stateline Wind Project) or its operational battery storage system in
2 Arizona, discussed further below.

3
4 In RFA2, the certificate holder describes that its parent company has experience constructing
5 and operating battery storage systems, including 100 MW systems currently under construction
6 and 106 MW systems currently in operation. The certificate holder also represents that it has
7 executed Power Purchase Agreements (PPAs) for combined solar and battery storage projects
8 in operation in Arizona and to be constructed in both Arizona and Nevada. The certificate
9 holder, however, represents that qualified contractors, engineers, and manufacturers would be
10 selected to construct the facility, with proposed changes; and, that these contractors,
11 engineers, and manufacturers would comply with site certificate conditions. Council previously
12 imposed Organizational Expertise Conditions 1 and 3 (PRE-OE-01 and PRE-OE-03) requiring the
13 certificate holder to, prior to construction, provide the Department the major design,
14 engineering, and construction contractor qualifications demonstrating substantial experience in
15 such work for similar facilities; and, contractually require contractors to comply with all
16 applicable laws and regulations, and the terms of the site certificate.

17
18 The Department recommends that the Council find that the certificate holder has
19 demonstrated an ability to design, construct, and operate the facility, with proposed changes,
20 in compliance with Council standards and site certificate conditions for the following reasons:
21 the certificate holder demonstrates experience constructing and operating battery storage
22 systems; the certificate holder has not received regulatory citations for its battery storage
23 facilities nor its EFSC jurisdictional facility; and, existing site certificate conditions require the
24 certificate holder to select qualified contractors and contractually require compliance with site
25 certificate conditions during facility design, construction and engineering.

26
27 *Public Health and Safety*

28
29 Construction and operation of the proposed battery storage systems could result in public
30 health and safety risks during battery and battery waste transport; and, onsite handling and
31 storage of battery-related materials and waste. This is further discussed in Sections III.M, *Public*
32 *Services* and Section III.N, *Waste Minimization* of this order.

33
34 In RFA2, the certificate holder describes that battery and battery waste transport would be
35 provided by a licensed third party battery supplier whom, through their licensure, would be
36 required to handle and transport batteries and battery waste in accordance with applicable
37 regulations including 49 Code of Federal Regulations (CFR) 173.185 Department of
38 Transportation Pipeline and Hazardous Material Administration handling guidelines.¹² 49 CFR
39 173.185 includes requirements for prevention of dangerous evolution of heat; prevention of
40 short circuits; prevention of damage to terminals; and, prevention of contact with other
41 batteries or conductive materials. Because the certificate holder relies upon the expertise of a
42 licensed third-party to handle and transport batteries and battery waste and to minimize

¹² WRWAMD2Doc11 Complete Request for Amendment 2, Section 4.4. 2018-09-17.

1 impacts of the proposed battery storage systems to the certificate holder’s ability to construct
2 and operate the facility, with proposed changes, in a manner that protects public health and
3 safety, the Department recommends Council impose the following condition:
4

5 **Recommended Organizational Expertise Condition 10** (GEN-OE-04): The certificate
6 holder shall:

- 7 a. Prior to and during construction, as applicable, provide evidence to the Department
8 that a contractual agreement has been obtained for transport and disposal of
9 battery and battery waste by a licensed hauler and requires the third-party to
10 comply with all applicable laws and regulations, including applicable provisions of 49
11 CFR 173.185.
12 b. Prior to transporting and disposing of battery and battery waste during facility
13 operations, provide evidence to the Department that a contractual agreement has
14 been obtained for transport and disposal of battery and battery waste by a licensed
15 hauler and requires the third-party to comply with all applicable laws and
16 regulations, including applicable provisions of 49 CFR 173.185.

17 [Final Order on AMD2, Organizational Expertise Condition 10]
18

19 The certificate holder also describes that potential safety hazards from onsite handling,
20 management and transport of batteries and battery waste would be minimized through proper
21 personnel training, safe interim storage, segregation from other potential waste streams, and
22 adherence to 49 CFR 173.185 Department of Transportation Pipeline and Hazardous Material
23 Administration handling guidelines. Based on the certificate holder’s representation and to
24 minimize potential public health and safety risks during onsite handling of battery and battery
25 waste, the Department recommends Council amend Public Services Condition 4 (OPR-PS-03),
26 Operational Waste Management Plan. The recommended amended condition, as presented in
27 Section III.M, *Public Services*, would require the plan to include an onsite handling procedure, in
28 accordance with 49 CFR 173.185 packaging requirements, for replacement, damaged, defective
29 or recalled lithium-ion batteries and to provide the Department review and approval authority
30 of the plan.
31

32 The Department also refers Council to previously imposed Public Services Condition 13 and 20
33 (PRE-PS-05 and PRE-PS-06) which require the certificate holder to, prior to construction,
34 develop and implement an Emergency Management Plan and Health and Safety Plan,
35 respectively. In RFA2, the certificate holder describes implementation of an Emergency Action
36 Plan that would include at a minimum, based on the example provided, emergency response
37 procedures in severe weather events, fire and environmental events. Based on the certificate
38 holder’s representation, the Department recommends Council amend Public Services Condition
39 13 (PRE-PS-05), Emergency Management Plan, to include battery storage system emergency
40 response procedures for severe weather events, fire, and environmental events. This is further
41 described in Section III.M, *Public Services* of this order.
42

43 Based upon the evidence provided, and compliance with existing, recommended new and
44 amended conditions, the Department recommends that Council find that the certificate holder

1 has provided reasonable assurance that it can successfully construct, operate and retire the
2 facility, with proposed changes, in a manner that protects public health and safety in
3 accordance with the Organizational Expertise standard.

4
5 *Ability to Restore the Site to a Useful, Non-Hazardous Condition*

6
7 The certificate holder's ability to restore the facility site to a useful, non-hazardous condition is
8 evaluated in Section III.G, *Retirement and Financial Assurance* of this order, in which the
9 Department recommends that Council find that the certificate holder would continue to be able
10 to comply with the Retirement and Financial Assurance standard.

11
12 *ISO 900 or ISO 14000 Certified Program*

13
14 OAR 345-022-0010(2) is not applicable because the certificate holder has not proposed to
15 design, construct or operate the facility, with proposed changes, according to an ISO 9000 or
16 ISO 14000 certified program.

17
18 *Third-Party Permits*

19
20 OAR 345-022-0010(3) addresses the requirements for potential third party contractors. In RFA2,
21 the certificate holder describes that the proposed changes would not require any additional
22 state or local government permits or approvals for which the Council would ordinarily
23 determine compliance but that would instead be issued to a third-party not previously
24 considered.

25
26 **Conclusions of Law**

27
28 Based on the evidence in the record, and subject to compliance with the existing,
29 recommended new and amended conditions, the Department recommends that the Council
30 find that the certificate holder would continue to satisfy the requirements of the Council's
31 Organizational Expertise standard.

32
33 **III.C. Structural Standard: OAR 345-022-0020**

34
35 *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the*
36 *Council must find that:*

37
38 *(a) The applicant, through appropriate site-specific study, has adequately*
39 *characterized the seismic hazard risk of the site;*

40
41 *(b) The applicant can design, engineer, and construct the facility to avoid dangers to*
42 *human safety and the environment presented by seismic hazards affecting the site,*
43 *as identified in subsection (1)(a);*
44

1 (c) *The applicant, through appropriate site-specific study, has adequately*
2 *characterized the potential geological and soils hazards of the site and its vicinity*
3 *that could, in the absence of a seismic event, adversely affect, or be aggravated by,*
4 *the construction and operation of the proposed facility; and*

5
6 (d) *The applicant can design, engineer and construct the facility to avoid dangers to*
7 *human safety and the environment presented by the hazards identified in subsection*
8 *(c).*

9
10 (2) *The Council may not impose the Structural Standard in section (1) to approve or deny*
11 *an application for an energy facility that would produce power from wind, solar or*
12 *geothermal energy. However, the Council may, to the extent it determines appropriate,*
13 *apply the requirements of section (1) to impose conditions on a site certificate issued for*
14 *such a facility.*

15
16 (3) *The Council may not impose the Structural Standard in section (1) to deny an*
17 *application for a special criteria facility under OAR 345-015-0310. However, the Council*
18 *may, to the extent it determines appropriate, apply the requirements of section (1) to*
19 *impose conditions on a site certificate issued for such a facility.*

20
21 **Findings of Fact**

22
23 As provided in section (1) above, the Structural Standard generally requires the Council to
24 evaluate whether the applicant (certificate holder) has adequately characterized the potential
25 seismic, geological and soil hazards of the site, and whether the applicant (certificate holder)
26 can design, engineer and construct the facility to avoid dangers to human safety and the
27 environment from these hazards.¹³ Pursuant to OAR 345-022-0020(2), the Council may issue a
28 site certificate for a wind energy facility without making findings regarding compliance with the
29 Structural Standard; however, the Council may apply the requirements of the standard to
30 impose site certificate conditions.

31
32 The analysis area for the Structural Standard is the area within the site boundary.

33
34 *Potential Seismic, Geological and Soil Hazards*

35
36 In RFA2, the certificate holder asserts that, because the proposed battery storage systems
37 would be located in previously approved micrositing corridors and site boundary area, the
38 assessment of potential seismic, geological and soil hazards completed in 2014 during the ASC
39 phase remains valid. To address rule changes in effect as of October 2017 modifying the
40 Division 21, Exhibit H requirements for geologic and soil stability, the certificate holder

¹³ OAR 345-022-0020(3) does not apply to this facility because the facility, with proposed changes, is a not a special criteria facility under OAR 345-015-0310.

1 discusses future climate condition impacts on the facility, with proposed changes. The
2 certificate holder provides that likely temperature or rainfall increases would not impact the
3 underlying geology of the facility and thus there is minimal risk to the environment and human
4 safety by non-seismic geologic hazards associated with climate conditions.¹⁴ Based on the
5 certificate holder's representations, and DOGAMI's confirmation of compliance with applicable
6 requirements during the 2012-2017 ASC phase, the Department recommends Council rely on
7 the previous characterization of potential seismic, geological and soil hazards as presented in
8 the *Final Order on the ASC*. To aid the Council in its review and understanding of its previous
9 evaluation, the Department presents a summary of the seismic and non-seismic hazards as
10 evaluated in the *2017 Final Order on the ASC*.

11
12 As described in the *Final Order on the ASC*, the geologic setting of the site boundary generally
13 consists of loess and weak sedimentary rock overlying basalt bedrock. The region of the facility
14 site is affected by four potential types of earthquakes: crustal, intraplate, volcanic, and deep
15 subduction zone. Of these, the deep subduction zone earthquake along the Cascadia
16 Subduction Zone (CSZ) has the potential to produce the largest magnitude earthquake. The
17 certificate holder provided an assessment of the design parameters for ground motion that
18 may affect the facility and to determine the maximum credible earthquake (MCE). The MCE has
19 a peak ground acceleration (PGA) of 0.167g at the bedrock surface. This value of PGA on rock is
20 an average representation of the acceleration most likely to occur within the site boundary for
21 all seismic events (crustal, intraplate, or subduction).¹⁵ The probabilistic seismic hazard analysis
22 (a two-percent probability of exceedance in 50 years or a 2,500 year nominal recurrence
23 period), as conducted by the certificate holder during the ASC phase, resulted in an expected
24 6.0 magnitude earthquake with a 16 mile epicentral distance from the site boundary, and a PGA
25 of 0.167g.

26
27 The Council previously found that the certificate holder adequately characterized the facility
28 site as to the maximum credible earthquake and maximum probable ground motion, taking into
29 account ground failure and amplification for the site specific soil profile under the maximum
30 credible and maximum probable seismic event. Council previously imposed Mandatory
31 Condition 7 (GEN-GS-08), pursuant to OAR 345-025-0006(12), requiring that the certificate
32 holder design, engineer and construct the facility to avoid dangers to human safety and the
33 environment presented by seismic hazards affecting the site that are expected to result from all
34 maximum probable seismic events.

35
36 As previously evaluated, non-seismic hazards in the facility vicinity include landslides, volcanic
37 activity, erosion and the collapse of potential loess. The evaluation of landslides found no active
38 landslides within the site boundary; during the ASC phase the certificate holder stated that
39 evidence of landslides was found in close proximity to the southern portion of Wheatridge
40 West but this area is not near the proposed location of the battery storage system.¹⁶ In RFA2,

¹⁴ WRWAMD2Doc11 Complete Request for Amendment 2, Section 6.1.1. 2018-09-17.

¹⁶ WRWAPPDoc139-7 ASC Exhibit H, p. 19. 2015-07-01.

1 the certificate holder reiterates that the risk of landslides is low and that the basalt bedrock
2 present within the site boundary is structurally competent and free of existing landslides. The
3 certificate holder stated in the ASC that the probability of volcanic activity impacting the facility
4 is extremely unlikely. To further assess geotechnical considerations at the facility site, Council
5 previously imposed Structural Standard Condition 1 (PRE-SS-01), presented below, requiring
6 that the certificate holder review and assess potential seismic, geologic, and soil hazards of the
7 facility site, in consultation with the Department and DOGAMI, through a pre-construction, site-
8 specific geotechnical investigation.

9
10 *Design, Engineer and Construct Facility to Avoid Dangers to Human Safety from Seismic and*
11 *Non-Seismic Hazards*

12
13 In RFA2, the certificate holder maintains that because the proposed battery storage systems
14 would be located adjacent to the previously evaluated O&M building and substation sites, that
15 the pre-construction site specific geotechnical work required per Structural Standard Condition
16 1 (PRE-SS-01) would ensure that the proposed battery storage systems are designed,
17 engineered and constructed to avoid dangers to human safety from seismic and non-seismic
18 hazards. The certificate holder commits to modifying facility layout and construction
19 requirements as needed, based on the results of the pre-construction site-specific geotechnical
20 investigation. To ensure that design criteria are provided for the proposed battery storage
21 systems within the pre-construction site-specific geotechnical report, the Department
22 recommends Council amend Structural Standard Condition 1 (PRE-SS-01) as follows:

23
24 **Recommended Amended Structural Standard Condition 1 (PRE-SS-01):** Before
25 beginning construction, the certificate holder must:

- 26 (a) Submit a protocol to the Department and Oregon Department of Geology & Mineral
27 Industries (DOGAMI), for review, with the applicable codes, standards, and
28 guidelines to be used, and proposed geotechnical work to be conducted for the site-
29 specific geotechnical investigation report.
- 30 (b) Following receipt and review of Department and DOGAMI comments on the
31 protocol per (a), the certificate holder shall conduct a site-specific geological and
32 geotechnical investigation, and shall report its findings to DOGAMI and the
33 department. The report shall be used by the certificate holder in final facility layout
34 and design. The department shall review, in consultation with DOGAMI, and confirm
35 that the investigation report includes an adequate assessment of the following
36 information:
- 37 • Subsurface soil and geologic conditions of the site boundary
 - 38 • Define and delineate geological and geotechnical hazards, and means to mitigate
39 these hazards
 - 40 • Geotechnical design criteria and data for the turbine foundations, foundations of
41 substations, O&M buildings, battery storage systems, roads, and other related
42 and supporting facilities
 - 43 • Design data for installation of underground and overhead collector lines, and

- 1 overhead transmission lines
- 2 • Investigation of specific areas with potential for slope instability and landslide
- 3 hazards. Landslide hazard evaluation shall be conducted by LIDAR and field work,
- 4 as recommended by DOGAMI
- 5 • Investigations of the swell and collapse potential of loess soils within the site
- 6 boundary.
- 7 [Final Order on ASC, Structural Standard Condition 1; Amended in Final Order on
- 8 AMD2]

9

10 Existing Structural Standard Condition 2 (GEN-SS-01) requires the design, engineering and

11 construction of the facility to comply with current structural and buildings codes. Existing

12 Structural Standard Conditions 3, 4, and 5 (PRE-SS-02, PRE-SS-03, PRE-SS-04, respectively)

13 require that the pre-construction site-specific geotechnical investigation report, required per

14 Structural Standard Condition 1 (PRE-SS-01), include an investigation of potentially active faults,

15 slope instability and landslide hazards, swell and collapse potential. These conditions ensure

16 that the pre-construction site-specific geotechnical investigation evaluate the potential seismic

17 and non-seismic risks to the facility and identify any additional mitigation that would be

18 undertaken to safely design, construct, and operate the facility. Additionally, existing Soil

19 Protection Condition 1 (CON-SP-01) requires that the certificate holder conduct all construction

20 activities in compliance with best management practices of an Erosion and Sediment Control

21 Plan to reduce and mitigate erosion and sedimentation, as discussed further in Section III.D *Soil*

22 *Protection* of this order.

23

24 Based upon the analysis presented above and subject to compliance with existing and

25 recommended amended conditions, the Department recommends that Council find that the

26 certificate holder has adequately characterized the potential seismic, geologic and soil hazards

27 within the site boundary and its vicinity, and that the certificate holder maintains the ability to

28 design, engineer, and construct the facility, with proposed changes, to avoid dangers to human

29 safety presented by the identified hazards.

30

31 **Conclusions of Law**

32

33 Based on the foregoing analysis, and subject to existing and recommended amended

34 conditions, the Department recommends the Council find that the facility, with proposed

35 changes, would continue to comply with the Structural Standard.

1 **III.D. 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, with proposed changes, are not likely to
13 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. The proposed battery storage systems described in RFA2 would be
17 located adjacent to previously approved substations and O&M buildings, within Morrow and
18 Umatilla counties (see Figure 1, *Facility Location*).
19

20 *Potential Significant Adverse Impacts to Soils*
21

22 Potential impacts to soils within the analysis area (site boundary) could occur during
23 construction and operation of the proposed battery storage systems from erosion; and during
24 transport, use or disposal of batteries, if not properly handled. The facility site boundary would
25 not be modified as a result of the proposed battery storage systems; therefore, the Department
26 recommends Council rely upon previously evaluated soil classifications described in the *Final*
27 *Order on the ASC*. To aid the Council in its review and understanding of the evaluation of
28 existing soil types and potential soil impacts, the Department presents a summary of the
29 evaluation of potential impacts to soils represented in the *Final Order on the ASC*, as well as an
30 evaluation of potential adverse impacts resulting from the proposed amendment.
31

32 As described in RFA2, the proposed battery storage systems would be installed adjacent to the
33 previously-approved facility substation and O&M building sites, within the existing site
34 boundary. The certificate holder explains that the proposed battery storage systems would add,
35 at maximum, 5 acres of permanent disturbance each (10 acres total), but that temporary
36 impacts would be contained within the previously evaluated temporary disturbance areas (10
37 to 25 acres).¹⁷ The certificate holder describes that erosion control measures would be

¹⁷ WRWAMD2Doc2. Complete Request for Amendment 2. 2018-09-17. In RFA2 Section 3.3 Location of the Proposed Change, the certificate holder describes that construction impacts from the proposed battery storage system sites would occur within the 5-acre disturbance area already analysis and asserts that there would be no additional temporary impacts. Based on the Department’s review of ASC Exhibit C Table C-2, temporary disturbance of the substation and O&M building sites assumed 10 to 25 acres would be temporary disturbed. Therefore, the Department refers to the temporary disturbance for the substation sites of 10 to 25 acres, total, as referenced in ASC Exhibit C.

1 implemented during construction in accordance with previously imposed Soil Protection
2 Conditions 1 and 2 (CON-SP-01 and CON-SP-02). Soil Protection Conditions 1 and 2 require the
3 certificate holder to, during construction, implement erosion and sediment control measures
4 and best management practices in accordance with the DEQ-approved National Pollutant
5 Discharge Elimination System Construction Stormwater Discharge General Permit (NPDES)
6 1200-C. Council previously imposed Soil Protection Condition 6 (OPR-SP-01) requiring the
7 certificate holder to, during operations, implement and maintain erosion and sediment control
8 measures and restrict vehicular use and maintenance activities to constructed access roads in
9 order to avoid unnecessary erosion or spill risk. The Department recommends Council find that
10 based upon compliance with existing conditions, potential soil erosion impacts during
11 construction and operation would not likely be significant or adverse.

12
13 Potential adverse impacts to soils could occur during proposed battery storage system
14 operation from leakage or spills of battery cell electrolyte fluid during potential equipment
15 malfunction or improper handling. In RFA2, the certificate holder describes that the proposed
16 battery storage systems would include battery cells contained within modules within containers
17 or a building, where the modules and container or building would provide secondary and
18 tertiary spill containment, respectively. Furthermore, the proposed battery storage systems
19 would be constructed on concrete foundations and placed on top of 6-inches of gravel. The
20 certificate holder describes that battery function would be electronically monitored and
21 physically inspected by O&M personnel. Additionally, any reduction in battery function, such as
22 from a battery malfunction, would be detected prior to a leak occurring, and even in a scenario
23 where a leak occurs it would be unlikely to escape from the module and the container or
24 building containment. Based on this assessment, the Department recommends Council find,
25 based on the proposed design of the battery storage systems, potential adverse impacts to soil
26 from potential battery leakage would not be likely.

27
28 The proposed battery storage systems would include oil and coolant containing equipment
29 (power transformers, distribution/auxiliary transformers, cooling systems), which could result
30 in adverse impacts to soils during a spill. The cooling units would be placed either on top or
31 alongside the battery storage containers. The Council previously imposed Soil Protection
32 Condition 5 (PRO-SP-01) requiring the certificate holder to, during operations, develop and
33 implement a DEQ-approved Spill Prevention Control and Countermeasures (SPCC) Plan, if
34 determined to be required by DEQ, or otherwise an operational Spill Prevention and
35 Management Plan. While the Department recommends administrative amendments to this
36 condition, as described below, the Department recommends Council find that development
37 and implementation of an operational SPCC Plan or Spill Prevention and Management Plan, as
38 required through existing site certificate conditions, would continue to minimize potential
39 adverse impacts to soils during a spill event.

40
41 The Department understands, based on conversations with DEQ, that it is the certificate
42 holder's obligation to determine if an SPCC Plan is required under DEQ's federally-delegated
43 Hazardous Waste Program, and the certificate holder's obligation to develop and implement
44 the SPCC Plan in accordance with applicable requirements, but that DEQ does not review or

1 approve the plans unless during an inspection or review of spill event and response.¹⁸ The
2 Department, therefore, recommends Council administratively amend Soil Protection Condition
3 5 (PRO-SP-01) based on DEQ's programmatic function and process and to provide clarification
4 that the materials inventory apply to all facility components, including proposed battery
5 storage systems, that would use or store hazardous and non-hazardous materials:
6

7 **Recommended Amended Soil Protection Condition 5 (PRO-SP-01):** Prior to beginning
8 facility operation, the certificate holder shall provide the Department a copy of an
9 ~~DEQ approved~~ operational SPCC plan, if required per DEQ's Hazardous Waste Program
10 ~~determined to be required by DEQ~~. If an SPCC plan is not required by DEQ, the
11 certificate holder shall prepare and submit to the Department for review and approval
12 an operational Spill Prevention and Management plan. The Spill Prevention and
13 Management Plan shall include at a minimum the following procedures and BMPs:

- 14 • Procedures for oil and hazardous material emergency response consistent with
15 OAR 340, Division 100-122 and 142
- 16 • Procedures demonstrating compliance with all applicable local, state, and
17 federal environmental laws and regulations for handling hazardous materials
18 used onsite in a manner that protects public health, safety, and the environment
- 19 • Current inventory (type and quantity) of all hazardous materials stored onsite,
20 specifying the amounts at each O&M building, substation and battery storage
21 system components
- 22 • Restriction limiting onsite storage of diesel fuel or gasoline
- 23 • Requirement to store lubricating and dielectric oils in quantities equal to or
24 greater than 55-gallons in qualified oil-filled equipment
- 25 • Preventative measures and procedures to avoid spills
 - 26 ○ Procedures for chemical storage
 - 27 ○ Procedures for chemical transfer
 - 28 ○ Procedures for chemical transportation
 - 29 ○ Procedures for fueling and maintenance of equipment and vehicles
- 30 • Employee training and education
- 31 • Clean-up and response procedures, in case of an accidental spill or release
- 32 • Proper storage procedures
- 33 • Reporting procedures in case of an accidental spill or release
- 34 [Final Order on ASC, Soil Protection Condition 5; Amended in Final Order on
35 AMD2]

36
37 Based on the certificate holder's representation, and to minimize potential adverse impacts to
38 soils during battery handling, the Department recommends Council amend Public Services
39 Condition 4 (OPR-PS-03), Operational Waste Management Plan. The recommended amended
40 condition, as presented in Section III.M *Public Services*, would require the plan to include an

¹⁸ DEQ's federally-delegated Hazardous Waste Program and SPCC Plan requirement applies to facilities that store, transfer, use or consume oil or oil products, in quantities greater than 1,320 gallons; and, in the event of a spill or discharge, could reasonably be expected to discharge oil to navigable waters of the U.S. or adjoining shoreline.

1 onsite handling procedure, in accordance with 49 CFR 173.185 packaging requirements, for
2 replacement, damaged, defective or recalled lithium-ion batteries and to provide the
3 Department review and approval authority of the plan.

4
5 In RFA2, the certificate holder describes that a licensed third-party would handle and transport
6 batteries and battery waste in accordance with applicable regulations. As described in Section
7 III.B *Organizational Expertise*, the Department recommends Council impose Organizational
8 Expertise Condition 10 (GEN-OE-04): to require the certificate holder to provide evidence to the
9 Department that a contractual agreement has been secured with a licensed third-party
10 contractor to provide battery and battery waste transport services in compliance with
11 applicable regulations.

12
13 Based on the foregoing analysis, the Department recommends that Council find that
14 compliance with existing, recommended new and recommended amended conditions would
15 minimize the potential for accidental chemical spills or leaks and soil erosion to cause a
16 significant adverse impact to soils during construction and operation of the facility, with
17 proposed changes.

18 19 **Conclusions of Law**

20
21 Based on the foregoing recommended findings of fact and conclusions of law, and subject to
22 compliance with existing, recommended new and amended site certificate conditions, the
23 Department recommends that the Council find that the facility, with proposed changes, would
24 continue to comply with the Council's Soil Protection standard.

25 26 **III.E. Land Use: OAR 345-022-0030**

- 27
28 *1) To issue a site certificate, the Council must find that the proposed facility complies*
29 *with the statewide planning goals adopted by the Land Conservation and*
30 *Development Commission.*
31
32 *2) The Council shall find that a proposed facility complies with section (1) if:*
33
34 *(a) The applicant elects to obtain local land use approvals under ORS 469.504(1)(a)*
35 *and the Council finds that the facility has received local land use approval under*
36 *the acknowledged comprehensive plan and land use regulations of the affected*
37 *local government; or*
38
39 *(b) The applicant elects to obtain a Council determination under ORS 469.504(1)(b)*
40 *and the Council determines that:*
41
42 *(A) The proposed facility complies with applicable substantive criteria as*
43 *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 **Findings of Fact**

15
16 The Land Use standard requires the Council to find that the facility, with proposed changes,
17 would continue to comply with local applicable substantive criteria, as well as the statewide
18 planning goals adopted by the Land Conservation and Development Commission (LCDC).¹⁹

19
20 The analysis area for potential land use impacts, as defined in the project order, is the area
21 within and extending ½-mile from the site boundary.

22
23 **Local Applicable Substantive Criteria**

24
25 On November 2, 2012, during the review of the ASC, the Council appointed the Umatilla County
26 Board of Commissioners and Morrow County Board of Commissioners as the Special Advisory
27 Group (SAG) for the facility. On behalf of and as authorized by the SAG, Morrow and Umatilla
28 County Planning Directors identified applicable substantive criteria to be considered during the
29 ASC phase and through subsequent amendment requests has identified changes in local code
30 to be considered applicable substantive criteria. In a comment provided on pRFA2, on behalf of
31 the SAG, Morrow County Planning Department confirmed that Morrow County Zoning
32 Ordinance (MCZO) Section 3.010 had been updated since Council’s previous evaluation, but
33 that the updates aligned local code requirements with state statute and would not affect
34 Council’s previous findings of compliance with the Land Use standard.²⁰ In a comment provided
35 on pRFA2, Umatilla County Planning Department confirmed that there have been no changes in
36 local code provisions that would affect Council’s previous findings of compliance with the Land
37 Use standard.²¹

38
39
40

¹⁹ The Council must apply the Land Use standard in conformance with the requirements of ORS 469.504.

²⁰ WRWAMD2Doc6 pRFA2 Special Advisory Group Comment Morrow County. 2018-07-02.

²¹ WRWAMD2Doc7 pRFA2 Reviewing Agency Comment Umatilla County. 2018-07-03.

1 **IV.E.1 Morrow County**

2

3 Table 1, *Applicable Substantive Criteria – Morrow County*, below, summarizes the applicable
 4 substantive criteria Council previously evaluated and determined the certificate holder could
 5 satisfy.

Table 1: Applicable Substantive Criteria – Morrow County

Morrow County Zoning Ordinance (MCZO)	
<i>Article 3 – Use Zones</i>	
Section 3.010	Exclusive Farm Use, EFU Zone
Section A	Purpose
Section C	Uses Permitted Outright
Section D	Conditional Uses Permitted
Section G	Dimensional Standards
<i>Article 4 – Supplementary Provisions</i>	
Section 4.165	Site Plan Review
<i>Article 6 – Conditional Uses</i>	
Section 6.015	Requirements Under a State Energy Facility Site Certificate
Section 6.020	General Criteria
Section 6.025	Resource Zone Standards for Approval
Section 6.030	General Conditions
Section 6.050	Standards Governing Conditional Uses
Morrow County Comprehensive Plan	
Agricultural Policy 1 Energy Policies 2 and 3 Fish and Wildlife Protection Plan (Attachment to M CCP)	

6

7 The facility, with proposed changes, could impact the certificate holder’s ability to satisfy the
 8 requirements of MCZO Section 3.010(K)(2)(c)-(e), Section 4.165 and Section 6.025. Therefore,
 9 the Department provides its evaluation of the certificate holder’s compliance with these
 10 applicable substantive criteria below.

11

12 ***MCZO Article 3 Use Zones***

13

14 *MCZO Section 3.010(K)(2)(c) Wind Power Generation Facility Minimum Standards,*
 15 *Additional Criteria*

16

- 17 c. *For wind power generation facility proposals on arable lands, meaning lands that are*
 18 *cultivated or suitable for cultivation, including high-value farmland soils described at*
 19 *ORS 195.300(10), the governing body or its designate must find that:*

20

- 1 (1) *The proposed wind power facility will not create unnecessary negative impacts*
2 *on agricultural operations conducted on the subject property. Negative impacts*
3 *could include, but are not limited to, the unnecessary construction of roads,*
4 *dividing a field or multiple fields in such a way that creates small or isolated*
5 *pieces of property that are more difficult to farm, and placing wind farm*
6 *components such as meteorological towers on lands in a manner that could*
7 *disrupt common and accepted farming practices;*
8
9 (2) *The presence of a proposed wind power facility will not result in unnecessary soil*
10 *erosion or loss that could limit agricultural productivity on the subject property.*
11 *This provision may be satisfied by the submittal and county approval of a soil and*
12 *erosion control plan prepared by an adequately qualified individual, showing how*
13 *unnecessary soil erosion will be avoided or remedied and how topsoil will be*
14 *stripped, stockpiled and clearly marked. The approved plan shall be attached to*
15 *the decision as a condition of approval;*
16
17 (3) *Construction or maintenance activities will not result in unnecessary soil*
18 *compaction that reduces the productivity of soil for crop production. This*
19 *provision may be satisfied by the submittal and county approval of a plan*
20 *prepared by an adequately qualified individual, showing how unnecessary soil*
21 *compaction will be avoided or remedied in a timely manner through deep soil*
22 *decompaction or other appropriate practices. The approved plan shall be*
23 *attached to the decision as a condition of approval; and*
24
25 (4) *Construction or maintenance activities will not result in the unabated*
26 *introduction or spread of noxious weeds and other undesirable weeds species.*
27 *This provision may be satisfied by the submittal and county approval of a weed*
28 *control plan prepared by an adequately qualified individual that includes a long-*
29 *term maintenance agreement. The approved plan shall be attached to the*
30 *decision as a condition of approval.*

31 *MCZO 3.010(K)(2)(c)(1) Impacts on Agricultural Operations*
32

33 MCZO Section 3.010(K)(2)(c)(1) requires that the certificate holder demonstrate the facility,
34 with proposed changes, would not “create unnecessary negative impacts on agricultural
35 operations conducted on the subject property.” The proposed battery storage systems would
36 result in temporary and permanent impacts within EFU zoned land primarily used for
37 cultivation of dryland wheat. The certificate holder describes that the previously evaluated
38 temporary disturbance area for the facility, as approved, specifically the substation and O&M
39 building sites (10 to 25 acres total), includes the footprint that would be disturbed during

1 construction of the proposed battery storage systems.²² In other words, temporary disturbance
2 of the proposed battery storage systems would not result in new or greater impacts than
3 previously evaluated. The proposed battery storage systems, however, would result in up to 10
4 acres total of new permanent disturbance to agricultural lands.

5
6 Council previously imposed the following conditions to minimize potential negative impacts on
7 agricultural operations:

- 8
- 9 • **Land Use Condition 11 (GEN-LU-04)** requiring that the certificate holder design and
10 construct the facility using the minimum land area necessary for safe construction and
11 operation.
 - 12 • **Land Use Condition 12 (PRE-LU-05)** requiring that, prior to construction, the certificate
13 holder consult with surrounding landowners and lessees to consider proposed
14 measures to reduce or avoid adverse impacts to farm practices and minimizing
15 potential increases to farm costs. This condition requires that the certificate holder
16 provide evidence of the landowner consultation to the Department and Morrow and
17 Umatilla counties.
 - 18 • **Land Use Condition 8 (CON-LU-01)** requiring that, during construction, construction
19 vehicles use existing roadways and tracks; and, construction yards and laydown areas
20 would be sited within future footprint of permanent structures, as practicable.
 - 21 • **Land Use Condition 2 (OPR-LU-02)** requiring that, during operations, the certificate
22 holder restore temporary disturbance areas impacted during facility maintenance or
23 repair activities in accordance with the methods and procedures outlined in the final
24 Revegetation Plan

25
26 While the proposed battery storage systems would result in impacts to agricultural lands, the
27 Department recommends Council find, based on compliance with the above-referenced
28 conditions, unnecessary negative impacts on agricultural operations within the surrounding
29 area (i.e. “subject property”) would be minimized.

30
31 *MCZO Section 3.010(K)(2)(c)(2) Soil Erosion or Loss*

32
33 MCZO Section 3.010(K)(2)(c)(2) provides that “the presence of a proposed wind power facility”
34 must not result in unnecessary soil erosion or loss that could limit agricultural productivity.

35
36 Potential impacts to soils within the site boundary could occur during construction and
37 operation of the proposed battery storage systems from erosion and loss. As described above,

²² WRWAMD2Doc2. Complete Request for Amendment 2. 2018-09-17. In RFA2 Section 3.3 Location of the Proposed Change, the certificate holder describes that construction impacts from the proposed battery storage system sites would occur within the 5-acre disturbance area already analyzed and asserts that there would be no additional temporary impacts. Based on the Department’s review of ASC Exhibit C Table C-2, temporary disturbance of the substation and O&M building sites assumed 10 to 25 acres would be temporary disturbed. Therefore, the Department refers to the temporary disturbance for the substation sites of 10 to 25 acres, total, as referenced in ASC Exhibit C.

1 the previously evaluated temporary disturbance area for the facility, as approved, specifically
2 the substation and O&M building sites (10 to 25 acres total) included area that would be
3 disturbed during construction of the proposed battery storage systems. In other words,
4 temporary disturbance of the proposed battery storage systems would not result in new or
5 greater soil erosion impacts than previously evaluated. The proposed battery storage systems,
6 however, would result in up to 10 acres total of new permanent disturbance to agricultural
7 lands and could result in erosion and soil loss impacts.

8
9 Council previously imposed Soil Protection Conditions 1 and 2 (CON-SP-01 and CON-SP-02)
10 requiring that, during construction, the certificate holder implement erosion and sediment
11 control measures and best management practices in accordance with the DEQ-approved
12 National Pollutant Discharge Elimination System Construction Stormwater Discharge General
13 Permit (NPDES) 1200-C. Council previously imposed Soil Protection Condition 6 (OPR-SP-01)
14 requiring that, during operations, the certificate holder implement and maintain erosion and
15 sediment control measures. To minimize potential soil loss impacts, Council previously imposed
16 Soil Protection Condition 4 (PRE-SP-02) requiring that, prior to construction, the certificate
17 holder develop a plan for implementation during construction to ensure that agricultural soils
18 are properly excavated, stored and replaced by soil horizon. Based upon compliance with
19 previously imposed conditions, the Department recommends Council find that proposed
20 battery storage system operations would not result in unnecessary soil erosion or loss that
21 could limit the productivity of soil for crop production.

22
23 *MCZO Section 3.010(K)(2)(c)(3) Soil Compaction*

24
25 MCZO Section 3.010(K)(2)(c)(3) requires that the certificate holder demonstrate that facility
26 construction or maintenance activities would not result in unnecessary soil compaction that
27 reduces the productivity of soil for crop production.

28
29 Construction and operation of the proposed battery storage systems could result in soil
30 compaction. As described above, the previously evaluated temporary disturbance area for the
31 facility, as approved, specifically the substation and O&M building sites (10 to 25 acres total)
32 included area that would be disturbed during construction of the proposed battery storage
33 systems. In other words, temporary disturbance of the proposed battery storage systems would
34 not result in new or greater compaction impacts than previously evaluated. The proposed
35 battery storage systems, however, would result in up to 10 acres total of new permanent
36 disturbance to agricultural lands and could result in soil compaction.

37
38 Council previously imposed Soil Protection Condition 6 (OPR-SP-01) requiring that, during
39 operations, the certificate holder restrict vehicular use and maintenance activities to
40 constructed access roads in order to avoid unnecessary compaction. The Department
41 recommends Council find that based upon compliance with the existing condition, operation of
42 the proposed battery storage systems would not result in unnecessary soil compaction that
43 would reduce the productivity of soil for crop production.

1 *MCZO Section 3.010(K)(2)(c)(4) Weed Control*

2
3 MCZO Section 3.010(K)(2)(c)(4) requires that the certificate holder demonstrate that facility
4 construction or maintenance activities would not result in the “unabated introduction or spread
5 of noxious weeds and other undesirable weed species.”

6
7 Construction and operation of the proposed battery storage systems would result in temporary
8 and permanent disturbance, which could result in the introduction or spread of noxious weeds
9 and other undesirable weed species. Council previously imposed Land Use Condition 6 (PRE-LU-
10 03) requiring that, during construction and operation, the certificate holder implement the
11 requirements of a Weed Control Plan, as approved by the Department in consultation with
12 Morrow and Umatilla counties and ODFW. The Department recommends Council find that
13 based upon compliance with the existing condition, construction operation of the proposed
14 battery storage systems would not result in unabated introduction or spread of noxious weeds
15 and other undesirable weed species.

16
17 ***MCZO Article 3 Use Zones***

18
19 *MCZO Section 3.010(K)(2)(c), (d) and (e) Wind Power Generation Facility Minimum*
20 *Standards, Additional Criteria*

- 21
22 *d. For wind power generation facility proposals on nonarable lands, meaning lands that*
23 *are not suitable for cultivation, the requirements of Subsection K.2.c(4) are satisfied.*
24
25 *e. In the event that a wind power generation facility is proposed on a combination of*
26 *arable and nonarable lands as described in Subsections c and d, the approval criteria*
27 *of Subsection c shall apply to the entire project.*

28 Subsections (d) and (e) of MCZO Section 3.010(K)(2) provide additional criteria for wind power
29 generation facilities located on “arable” or “nonarable” land. MCZO Section 3.010(K)(2)(c)
30 defines “arable land” as “lands that are cultivated or suitable for cultivation, including high-
31 value farmland soils” and provides criteria for locating a facility on arable land. MCZO Section
32 3.010(K)(2)(d) defines “nonarable land” as land “not suitable for cultivation” and provides that
33 the criteria in subsection (2)(d) apply to nonarable land. The facility is approved to be located
34 on a combination of arable and nonarable lands. Accordingly, subsection (e) applies to the
35 facility, which requires analysis under the criteria provided in subsection (c). The evaluation of
36 subsection (c) is presented above.

37
38 Based on the above analysis, the Department recommends the Council continue to find that the
39 facility, with proposed changes, would continue to satisfy the requirements of MCZO
40 3.010(K)(2).²³

²³ As noted above, the MCZO 3.010(K)(2) was adopted by Morrow County to reflect the language found in OAR 660-033-0130(37)(b)

1 Article 4. Supplementary Provisions

2
3 *Section 4.165 Site Plan Review*

4
5 *Site Plan Review is a non-discretionary or “ministerial” review conducted without a*
6 *public hearing by the County Planning Director or designee. Site Plan Review is for less*
7 *complex developments and land uses that do not require site development or conditional*
8 *use review and approval through a public hearing.*

9
10 *A. Purpose. The purpose of Site Plan Review (ministerial review) is based on clear and*
11 *objective standards and ensures compliance with the basic development standards of*
12 *the land use district, such as building setbacks, lot coverage, maximum building height,*
13 *and similar provisions. Site Plan review also addresses conformity to floodplain*
14 *regulations, consistency with the Transportation System Plan, and other standards*
15 *identified below.*

16
17 *C. Applicability. Site Plan Review shall be required for all land use actions requiring a*
18 *Zoning Permit as defined in Section 1.050 of this Ordinance. The approval shall lapse,*
19 *and a new application shall be required, if a building permit has not been issued within*
20 *one year of Site Review approval, or if development of the site is in violation of the*
21 *approved plan or other applicable codes.*

22
23 The Site Plan Review is the county’s ministerial review conducted prior to the issuance of a
24 zoning permit, defined under MCZO 1.050 as "an authorization issued prior to a building
25 permit, or commencement of a use subject to administrative review, stating that the proposed
26 use is in accordance with the requirements of the corresponding land use zone." The certificate
27 holder would be required to obtain a zoning permit, building permit, and conditional use permit
28 from Morrow County, prior to construction. The Council previously imposed Land Use Condition
29 3 (PRE-LU-01) requiring that, prior to construction, the certificate holder provide evidence to
30 the Department that local permits have been obtained.

31
32 Based on communication with the State Fire Marshal, the Department recommends that Land
33 Use Condition 3 (PRE-LU-01) be amended to require the certificate holder to submit a third-
34 party technical report for the building code review and fire system evaluation, which identifies
35 potential hazards and mitigation measures for the proposed battery storage systems.²⁴
36 Recommended Amended Land Use Condition 3 (PRE-LU-01) would ensure that the certificate
37 holder design and install appropriate fire suppression measures to address any risks posed by
38 battery storage system operation.

39
40

²⁴ During its review of pRFA2, ODOE conferred with the Oregon State Fire Marshal’s office, Jason Cain, on recommended amended Land Use Condition 3 (PRE-LU-01). 2018-07-13. No written comments received.

1 **Amended Land Use Condition 3 (PRE-LU-01):** Before beginning construction, the
2 certificate holder shall complete the following:

- 3 a. Pay the requisite fee and obtain a Zoning Permit from Morrow County for all facility
4 components sited in Morrow County; and
5 b. Obtain all other necessary local permits, including building permits.
6 c. Provide the Department and county with a building permit application that includes
7 a third party technical report which:
8 1. Evaluates fire hazards, and
9 2. Presents mitigation and recommendations for a fire suppression system
10 designed for the battery storage systems.
11 d. The certificate holder shall provide copies of the third-party technical report and
12 issued permits to the Department.

13 [Final Order on ASC, Land Use Condition 3; Amended in Final Order on AMD2]

14
15 *Section 6.025 Resource Zone Standards for Approval*

16
17 (a) *In the Exclusive Farm Use zone a conditional use may be approved only when the County*
18 *finds that the use will not:*

- 19
20 1. *Force a significant change in accepted farm or forest practices on surrounding*
21 *lands devoted to farm or forest use; or*
22
23 2. *Significantly increase the cost of accepted farm or forest practices on surrounding*
24 *lands devoted to farm or forest use.*

25
26 MCZO Section 6.025(A)(1) and (2) establish approval standards for all conditional uses within
27 EFU zoned land. There is no forest lands within the analysis area.

28
29 Construction and operation of the proposed battery storage systems could result in impacts to
30 agricultural soils. As described above, the previously evaluated temporary disturbance area for
31 the facility, as approved, specifically the substation and O&M building sites (10 to 25 acres
32 total) included area that would be disturbed during construction of the proposed battery
33 storage systems. In other words, temporary disturbance of the proposed battery storage
34 systems would not result in new or greater compaction impacts than previously evaluated. The
35 proposed battery storage systems, however, would result in up to 10 acres total of new
36 permanent disturbance to agricultural lands.

37
38 Disruption to farming practices and operations would be minimized by following Land Use
39 Conditions 6 through 12,²⁵ and through coordination of construction and operations with
40 landowners. The conditions listed above require, generally; a Weed Control plan, the
41 recordation of Covenants Not to Sue landowners in causes of action related to accepted
42 farming practices on adjacent land; the minimization of impacts from temporary construction

²⁵ PRE-LU-03, PRE-LU-04, PRE-LU-05, CON-LU-01, GEN-LU-03, OPR-LU-02, GEN-LU-04

yards and construction vehicles; the painting of metrological towers to adhere to FAA requirements; the restoration of temporarily impacted areas according to the Revegetation Plan; the design of access roads to minimize impacts to farming practices and; consultation with landowners avoid impacts to farming practices. In addition, and as described within the *Soil Protection* section of this draft proposed order, Soil Protection Conditions 1 (CON-SP-01) and 2 (CON-SP-02) require the development of protocols to minimize risks associated with soil compaction and erosion.

Based upon compliance with existing conditions described above, the Department recommends Council find that the facility, with proposed changes, would not force a significant change in accepted farming practices, or otherwise increase costs to farming within Morrow County.

IV.E.2 Umatilla County

Table 2, *Applicable Substantive Criteria – Umatilla County*, below, summarizes the applicable substantive criteria that the Council previously evaluated and determined the certificate holder could satisfy.

Table 2: Applicable Substantive Criteria – Umatilla County

Umatilla County Development Ordinance (UCDO)	
Section 152.060	Conditional Uses allowed on lands zoned for EFU
Section 152.061	Standards for all Conditional Uses on EFU Lands
Section 152.615	Additional Conditional Use Permit Restrictions
Section 152.616	Conditional Uses Permitted
Umatilla County Comprehensive Plan (UCCP)	
Citizen Involvement: Policy 1 and Policy 5 Agriculture: Policies 1, 8 and 17 Open Space, Scenic & Historic Areas, and Natural Areas: Policies 1(a), 5 (a & b), 6(a), 8(a), 9(a), 10 (c, d & e), 20(a), 20(b) (1-8), 22, 23(a), 24(a), 26, 37 & 38(a-c), 39(a) & 42(a) Air, Land, Water Quality: Policies 1, 7 & 8 Natural Hazards: Policies 1 & 4 Recreational Needs: Policy 1 Economy of the County: Policies 1, 4 & 8(a-f) Public Facilities & Services: Policies 1(a-d), 2, 9 & 19 Transportation: Policy 18 and 20 Energy Conservation: Policy 1	

19
20
21
22

1 *UCDC 152.061 Standards for Conditional Uses on EFU lands.*

2

3 *The following limitations shall apply to all conditional uses in an EFU zone. Uses may be*
4 *approved only where such uses:*

5

6 *(A) Will not force a significant change in accepted farm or forest practices on*
7 *surrounding lands devoted to farm or forest use; and*

8

9 *(B) Will not significantly increase the cost of accepted farm or forest practices on lands*
10 *devoted to farm or forest use.*

11

12 UCDO Section 152.061(A) and (B) establish approval standards for all conditional uses within
13 EFU zoned land, which mirror MCZO Section 6.025(A)(1) and (2), as evaluated above.

14 Construction and operation of the proposed battery storage system sites would not differ
15 within Morrow or Umatilla counties. Therefore, the Department incorporates by reference the
16 evaluation of MCZO Section 6.025(A)(1) and (2) to address UCDO Section 152.061(A) and (B).

17

18 Based upon compliance with existing conditions requiring that the certificate holder consult
19 with landowners to minimize impacts to farming operations, and implement measures to
20 minimize risks to soil quality and vegetation, the Department recommends Council find that the
21 facility, with proposed changes, would not force a significant change in accepted farming
22 practices, or otherwise increase costs to farming within Umatilla County.

23

24 **Conclusions of Law**

25

26 Based on the foregoing findings and the evidence in the record, and subject to compliance with
27 the existing and recommended amended site certificate conditions, the Department
28 recommends the Council find that the facility, with proposed changes, would continue to
29 comply with the Council's Land Use standard.

30

31 **III.F. Protected Areas: OAR 345-022-0040**

32

33 *(1) Except as provided in sections (2) and (3), the Council shall not issue a site certificate*
34 *for a proposed facility located in the areas listed below. To issue a site certificate for a*
35 *proposed facility located outside the areas listed below, the Council must find that,*
36 *taking into account mitigation, the design, construction and operation of the facility are*
37 *not likely to result in significant adverse impact to the areas listed below. References in*
38 *this rule to protected areas designated under federal or state statutes or regulations are*
39 *to the designations in effect as of May 11, 2007:*

40

41 *(a) National parks, including but not limited to Crater Lake National Park and Fort*
42 *Clatsop National Memorial;*

43

1 ***(b) National monuments, including but not limited to John Day Fossil Bed National***
2 ***Monument, Newberry National Volcanic Monument and Oregon Caves National***
3 ***Monument;***

4
5 ***(c) Wilderness areas established pursuant to The Wilderness Act, 16 U.S.C. 1131 et***
6 ***seq. and areas recommended for designation as wilderness areas pursuant to 43***
7 ***U.S.C. 1782;***

8
9 ***(d) National and state wildlife refuges, including but not limited to Ankeny, Bandon***
10 ***Marsh, Baskett Slough, Bear Valley, Cape Meares, Cold Springs, Deer Flat, Hart***
11 ***Mountain, Julia Butler Hansen, Klamath Forest, Lewis and Clark, Lower Klamath,***
12 ***Malheur, McKay Creek, Oregon Islands, Sheldon, Three Arch Rocks, Umatilla, Upper***
13 ***Klamath, and William L. Finley;***

14
15 ***(e) National coordination areas, including but not limited to Government Island,***
16 ***Ochoco and Summer Lake;***

17
18 ***(f) National and state fish hatcheries, including but not limited to Eagle Creek and***
19 ***Warm Springs;***

20
21 ***(g) National recreation and scenic areas, including but not limited to Oregon Dunes***
22 ***National Recreation Area, Hell's Canyon National Recreation Area, and the Oregon***
23 ***Cascades Recreation Area, and Columbia River Gorge National Scenic Area;***

24
25 ***(h) State parks and waysides as listed by the Oregon Department of Parks and***
26 ***Recreation and the Willamette River Greenway;***

27
28 ***(i) State natural heritage areas listed in the Oregon Register of Natural Heritage***
29 ***Areas pursuant to ORS 273.581;***

30
31 ***(j) State estuarine sanctuaries, including but not limited to South Slough Estuarine***
32 ***Sanctuary, OAR Chapter 142;***

33
34 ***(k) Scenic waterways designated pursuant to ORS 390.826, wild or scenic rivers***
35 ***designated pursuant to 16 U.S.C. 1271 et seq., and those waterways and rivers listed***
36 ***as potentials for designation;***

37
38 ***(l) Experimental areas established by the Rangeland Resources Program, College of***
39 ***Agriculture, Oregon State University: the Prineville site, the Burns (Squaw Butte) site,***
40 ***the Starkey site and the Union site;***

41
42 ***(m) Agricultural experimental stations established by the College of Agriculture,***
43 ***Oregon State University, including but not limited to: Coastal Oregon Marine***
44 ***Experiment Station, Astoria Mid-Columbia Agriculture Research and Extension***

1 *Center, Hood River Agriculture Research and Extension Center, Hermiston Columbia*
2 *Basin Agriculture Research Center, Pendleton Columbia Basin Agriculture Research*
3 *Center, Moro North Willamette Research and Extension Center, Aurora East Oregon*
4 *Agriculture Research Center, Union Malheur Experiment Station, Ontario Eastern*
5 *Oregon Agriculture Research Center, Burns Eastern Oregon Agriculture Research*
6 *Center, Squaw Butte Central Oregon Experiment Station, Madras Central Oregon*
7 *Experiment Station, Powell Butte Central Oregon Experiment Station, Redmond*
8 *Central Station, Corvallis Coastal Oregon Marine Experiment Station, Newport*
9 *Southern Oregon Experiment Station, Medford Klamath Experiment Station, Klamath*
10 *Falls;*

11
12 *(n) Research forests established by the College of Forestry, Oregon State University,*
13 *including but not limited to McDonald Forest, Paul M. Dunn Forest, the Blodgett*
14 *Tract in Columbia County, the Spaulding Tract in the Mary's Peak area and the*
15 *Marchel Tract;*

16
17 *(o) Bureau of Land Management areas of critical environmental concern,*
18 *outstanding natural areas and research natural areas;*

19
20 *(p) State wildlife areas and management areas identified in OAR chapter 635,*
21 *Division 8.*

22 *****

23 *(3) The provisions of section (1) do not apply to transmission lines or natural gas*
24 *pipelines routed within 500 feet of an existing utility right-of-way containing at least one*
25 *transmission line with a voltage rating of 115 kilovolts or higher or containing at least*
26 *one natural gas pipeline of 8 inches or greater diameter that is operated at a pressure of*
27 *125 psig.*

28
29 **Findings of Fact**

30
31 The Protected Areas standard requires the Council to find that, taking into account mitigation,
32 the design, construction, and operation of a proposed facility, or facility with proposed changes,
33 are not likely to result in significant adverse impacts to any protected area as defined by OAR
34 345-022-0040. Impacts to protected areas are evaluated based on identification of protected
35 areas, pursuant to OAR 345-022-0040, within the analysis area and an evaluation of the
36 following potential impacts during facility construction and operation: excessive noise,
37 increased traffic, water use, wastewater disposal, visual impacts of facility structures or plumes,
38 and visual impacts from air emissions.

39
40 In accordance with OAR 345-001-0010(59)(e) and consistent with the study area boundary, the
41 analysis area for protected areas is the area within and extending 20 miles from the site
42 boundary.

43

1 In RFA2, the certificate holder references 16 protected areas within the analysis area that were
 2 previously evaluated by Council in the 2016 *Final Order on ASC*. These protected areas are
 3 presented in Table 3, *Protected Areas within Facility Analysis Area and Distance from Site*
 4 *Boundary* below.

5

**Table 3: Protected Areas within Facility Analysis Area and
Distance from Site Boundary**

Protected Area (OAR Reference)	Distance from Site Boundary (in miles)
Lindsay Prairie Preserve (345-022-0040(1)(i))	0
Boardman RNA (Research Natural Area) (345-022-0040(1)(o))	2.3
Oregon Trail ACEC (Area of Critical Environmental Concern) (345-022-0040(1)(o))	2.7
Oregon State University Agriculture Research and Extension Center, Hermiston (345-022-0040(1)(m))	9
Cold Springs National Wildlife Refuge (345-022-0040(1)(d))	13
Three Mile Adult Hold Fish Hatchery (345-022-0040(1)(f))	13.5
Coyote Springs Wildlife Management Area (345-022-0040(1)(p))	14
Umatilla National Wildlife Refuge (345-022-0040(1)(d))	14
Power City Wildlife Management Area (345-022-0040(1)(p))	14.5
Horn Butte Curlew ACEC (345-022-0040(1)(o))	15
Hat Rock State Park (345-022-0040(1)(h))	16.5
Irrigon Wildlife Management Area (345-022-0040(1)(p))	16.5
Irrigon Hatchery (345-022-0040(1)(f))	17.5
McNary National Wildlife Refuge (345-022-0040(1)(d))	18
Willow Creek Wildlife Management Area (345-022-0040(1)(p))	18

Table 3: Protected Areas within Facility Analysis Area and Distance from Site Boundary

Protected Area (OAR Reference)	Distance from Site Boundary (in miles)
Umatilla Hatchery (345-022-0040(1)(f))	20
Source: WRWAPPDoc139-20. ASC Exhibit T. 2015-07-01.	

1
 2 As presented in Table 3, *Protected Areas within Facility Analysis Area and Distance from Site*
 3 *Boundary*, the majority of the listed protected areas are located at least 15 miles from the
 4 facility site boundary, and would be located at greater distances from the proposed battery
 5 storage system sites. As previously identified in the *Final Order on ASC*, the protected areas
 6 closest to the site boundary include the Lindsay Prairie Preserve (<0 mile), Boardman Research
 7 Natural Area (2.3 miles), and Oregon Trail Area of Critical Environmental Concern (2.7 miles).
 8 Potential adverse impacts to protected areas during construction and operation of the facility,
 9 with proposed changes, from noise, traffic, water use and wastewater disposal, and visual are
 10 discussed below.

11
 12 *Potential Noise Impacts*

13
 14 The significance of potential noise impacts to identified protected areas is based on the
 15 magnitude and likelihood of the impact on the affected human population or natural resource
 16 that uses the protected area.²⁶ The nearest protected area, Lindsay Prairie Preserve is a site
 17 managed to protect native grassland and wildlife habitat. Based on this function and purpose,
 18 the Lindsay Prairie Preserve could be affected if adverse noise levels from the facility, with
 19 proposed changes, were audible. Potential noise impacts at the Lindsay Prairie Preserve from
 20 construction and operation of the facility, with proposed changes, are evaluated below.

21
 22 *Construction*

23
 24 The proposed battery storage systems would generate construction-related noise. The
 25 certificate holder describes that construction related noise would be short-term and
 26 intermittent. Site preparation and construction activities for the proposed battery storage

²⁶ The Protected Areas standard requires the Council to find that, taking into account mitigation, the design, construction and operation of a facility are not likely to result in significant adverse impacts to any protected area as defined by OAR 345-022-0040. OAR 345-001-0010(53) defines “significant” as: “having an important consequence, either alone or in combination with other factors, based upon the magnitude and likelihood of the impact on the affected human population or natural resources, or on the importance of the natural resources affected, considering the context of the action or impact, its intensity and the degree to which possible impacts are caused by the proposed action. Nothing in this definition is intended to require a statistical analysis of the magnitude or likelihood of a particular impact.”

1 systems would include gravel delivery and placement; underground utility work; concrete pad
2 and foundation installation; container and battery delivery and installation.²⁷ These activities
3 are similar to activities described in the ASC for wind facility construction; therefore, the
4 Department refers to construction equipment noise levels presented in ASC Exhibit X, which
5 range from 42 (crane) to 56 (loader/dozer) dBA, at 2,000 feet.

6
7 While not specifically addressed in RFA2 Section 6.1.10 *Recreation*, the Department relies upon
8 information provided in ASC Exhibit X and RFA2 Section 6.3.1 *Noise Control Regulation* to
9 evaluate potential construction-related noise impacts at the nearest protected area, Lindsay
10 Prairie Preserve, which is adjacent to segments of the site boundary in the northern portion of
11 Wheatridge West, but located at further distances from the proposed battery storage systems.
12 The Department acknowledges that the analysis area extends 20-miles from the site boundary,
13 but presents an evaluation of impacts at the nearest protected areas as a proxy for potential
14 impacts at further distances from the site boundary.

15
16 The certificate holder previously described that peak construction noise at the Lindsay Prairie
17 Preserve would be 55 dBA. Council previously determined that this level of short-term,
18 intermittent noise would not interfere with the primary purpose of the protected area (i.e.
19 habitat preservation). Because the proposed battery storage systems would be located at
20 greater distances from the Lindsay Prairie Preserve than previously evaluated construction-
21 related noise sources, the Department agrees with the certificate holder's representation that
22 the construction-related noise from the proposed battery storage systems would not be
23 expected to increase short-term, temporary noise impacts at the protected area.

24
25 Existing Noise Control Condition 1 (CON-NC-01) would reduce noise impacts during
26 construction by requiring the use of exhaust mufflers on combustion engine-powered
27 equipment, use of air-inlet silencers, shrouds and shields, as appropriate; and requires that the
28 certificate holder establish a noise complaint response system, including a system for the
29 certificate holder to receive and resolve noise complaints.

30
31 Based on the low dBA level expected at the nearest protected area and compliance with the
32 above-referenced condition, and because construction related noise would be temporary and
33 short-term in duration, the Department recommends that Council find that construction of the
34 facility, with proposed changes, would not be likely to result in significant adverse noise impacts
35 at the Lindsay Prairie Preserve. Because the other protected areas within the analysis area are
36 located at greater distances from the facility site boundary than the Lindsay Prairie Preserve,
37 the Department recommends that Council conclude that potential construction-related impacts
38 from the facility, with proposed changes, at these protected areas would also not likely be
39 potentially significant or adverse.

40
41
42

²⁷ WRWAMD2Doc11 Complete Request for Amendment 2, Section 4.4 Materials Analysis. 2018-09-17.

1 *Operation*

2

3 The proposed battery storage systems would generate operational noise from the following
4 sources

5

- 6 • Up to 56 heating, ventilation and air conditioning (HVAC) modules
- 7 • Up to 28 power inverters
- 8 • Up to 28 distribution transformers

9

10 The HVAC modules, power inverters, and distribution transformers would generate maximum
11 noise levels of 103, 92, and 72 dBA, respectively.²⁸ In RFA2, the certificate holder asserts that
12 operational noise from the facility, with proposed changes, would be similar to or less than
13 evaluated in ASC Exhibit L and Council’s *Final Order on ASC*. Based on noise modeling conducted
14 during the ASC phase, the Council previously found that facility-related operational noise would
15 be inaudible at all protected areas other than the Lindsay Prairie Preserve where potential
16 operational sound levels between 36 to 54 dBA are anticipated.²⁹

17

18 Council previously concluded that audible noise levels between 36 to 54 dBA would not
19 interfere with the primary purpose of the protected area (i.e. habitat preservation). Therefore,
20 based on the Council’s previous findings and the certificate holder’s assertion that operational
21 noise would be similar to or less than 54 dBA, the Department recommends Council find that
22 operation of the facility, with proposed changes, would not be likely to result in significant
23 adverse noise impacts to any protected areas within the analysis area.

24

25 *Potential Traffic Impacts*

26

27 *Construction*

28

29 The facility, with proposed changes, would generate construction-related traffic, however, in
30 RFA2, the certificate holder explains that the potential traffic impacts from the construction
31 and operation of the proposed battery storage system additions would not vary significantly
32 from the impacts evaluated by Council in the *Final Order on the ASC*. The certificate holder
33 previously described that construction-related trucks would utilize I-84, OR-207 and local
34 county roads during construction; and, confirmed that facility construction traffic would not
35 occur north of I-84. All but five of the protected areas are located north of I-84 and therefore,
36 those areas would be largely unaffected by temporary traffic impacts generated during facility
37 construction.

38

39 Of the five protected areas south of I-84, only the Boardman Research Natural Area (RNA) and
40 Lindsay Prairie Preserve are likely to experience impacts from construction-related traffic of the
41 facility, but as noted, the proposed battery storage systems would not contribute substantially

²⁸ WRWAMD2Doc11 Complete Request for Amendment 2, Attachment 3. 2018-09-17.

²⁹ WRWAPPDoc196. Final Order on ASC, p. 211. 2017-05-24.

1 to the construction vehicle traffic compared to other components of the facility. Council
2 previously imposed Public Services Condition 6 (PRE-PS-01) requiring that the certificate holder
3 implement a Traffic Management Plan, as approved by the Department, that would include
4 best management practices (BMP's) such as traffic control BMP's and reduction practices to
5 minimize potential construction-related traffic impacts.³⁰

6
7 Because construction of the battery storage system is not expected to increase traffic impacts
8 compared to those considered in Council's *Final Order on the ASC*, where construction-related
9 traffic impacts at protected areas were not expected to be significant or adverse, and based
10 upon compliance with Public Services Condition 6 (PRE-PS-01), the Department recommends
11 Council find that construction-related traffic impacts would not be likely to result in a significant
12 adverse traffic impact to protected areas within the analysis area.

13 14 *Operation*

15
16 The facility, with proposed changes, would generate operational-related traffic. However, the
17 certificate holder asserts that the proposed battery storage systems would not result in
18 changes to previously evaluated operational traffic impacts of 10 to 20 vehicle trips per day,
19 which were previously determined not likely to have a significant adverse impact to protected
20 area access roads.³¹ Because RFA2 would not result in changes to the expected number of
21 permanent employees, the Department recommends Council find that operational-traffic
22 impacts would not be likely to result in a significant adverse impact to protected areas within
23 the analysis area.

24 25 *Potential Water Use and Wastewater Disposal Impacts*

26 27 *Construction and Operation*

28
29 Construction and operation of the proposed battery storage systems would result in water use.
30 Approximately 12,500 gallons of water would be used for road construction, concrete mixing,
31 dust suppression and other construction-related activities, similar to the water-use activities
32 associated with the facility, as approved. Water used for construction would be procured from
33 licensed sources in the vicinity of the facility.³² Water used during operation of the proposed

³⁰ WRWAPPDoc196. Final Order on ASC. 2017-05-24. Council previously imposed Land Use Condition 13 (PRE-LU-06), which also requires that the certificate holder develop and implement a Traffic Management Plan during construction. Specifically, the condition states, "Before beginning construction, the certificate holder shall work with the Morrow County Road Department to identify specific construction traffic related concerns, and develop a traffic management plan that specific necessary traffic control measures to mitigate the effects of the temporary increase in traffic. The certificate holder must provide a copy of the traffic management plan to the department and Morrow County, and must implement the traffic management plan during construction." Because the requirement of this condition are redundant with Public Services Condition 6 (PRE-PS-01), the Department recommends in Section III.M *Public Services* of this order that Council remove the condition and amend Public Service Condition 6 (PRE-PS-01) to include any substantive requirements of the removed condition.

³¹ WRWAPPDoc196. Final Order on ASC. 2017-04-28.

³² WRWAMD2Doc11. Complete Request for Amendment 2, Section 4.4. 2018-09-17.

1 battery storage systems would result from filling and use of fire water tanks associated with the
2 gas pressured deluge fire suppression systems. The fire suppression system fire water tanks
3 would obtain water from previously evaluated permit-exempt wells to be located at the O&M
4 buildings. None of these water sources are anticipated to impact protected areas in the analysis
5 area. Based on this water use and sources, the Department recommends Council find that
6 construction and operation of the facility, with proposed changes, would continue not to be
7 likely to result in significant adverse impacts to protected areas within the analysis area.

8
9 The proposed battery storage systems would not result in new wastewater disposal impacts
10 during construction or operation; therefore, the Department recommends that Council find
11 that construction and operational wastewater generation from the facility, with proposed
12 changes, would continue not to be likely to result in significant adverse impacts to protected
13 areas within the analysis area.

14
15 *Visual Impacts of Facility Structures*

16
17 The proposed battery storage systems would result in up to 5 acres, each, of permanent
18 disturbance and would be approximately 20-feet in height. Based on the low height,
19 intervening geographic and development features, and distance from the nearest protected
20 area (> 2 miles) to proposed battery storage system sites, visibility and associated visual
21 impacts would not be expected at any of the protected areas within the analysis area.

22
23 *Visual Impacts from Air Emissions*

24
25 There would be no air emissions from the proposed battery storage systems and therefore no
26 related visual impacts.

27
28 **Conclusions of Law**

29
30 Based on the foregoing recommended findings, the Department recommends that Council find
31 that the design, construction and operation of the facility, with proposed changes, would not
32 be likely to result in significant adverse impacts to any protected areas, in compliance with the
33 Council's Protected Area standard.

34
35 **III.G. Retirement and Financial Assurance: OAR 345-022-0050**

36
37 *To issue a site certificate, the Council must find that:*

38
39 *(1) The site, taking into account mitigation, can be restored adequately to a useful, non-*
40 *hazardous condition following permanent cessation of construction or operation of*
41 *the facility.*

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

1 **Findings of Fact**

2

3 The Retirement and Financial Assurance standard requires a finding that the facility site can be
4 restored to a useful, non-hazardous condition at the end of the facility’s useful life, should
5 either the certificate holder stop construction or should the facility cease to operate.³³ In
6 addition, it requires a demonstration that the certificate holder can obtain a bond or letter of
7 credit in a form and amount satisfactory to the Council to restore the site to a useful, non-
8 hazardous condition.

9

10 *Restoration of the Site Following Cessation of Construction or Operation*

11

12 OAR 345-022-0050(1) requires the Council to find that the site of the facility, with proposed
13 changes, can be restored to a useful non-hazardous condition at the end of the facility’s useful
14 life.

15

16 In RFA2, the certificate holder describes the tasks and actions necessary to restore the battery
17 storage system site to a useful, nonhazardous condition. The tasks and actions would include
18 removal and disposal of: storage containers, battery cell modules, inverters, and concrete pads.
19 Batteries would be removed, packaged, and transported to an offsite recycling or disposal
20 facility. Other system components would be dismantled using standard industry methods and
21 would be disposed offsite. Concrete foundations and underground utilities would be excavated
22 and removed to three feet below the soil surface. Topsoil would be imported and replaced,
23 restoring the soil to pre-construction grade, and the soil would be re-seeded with native
24 vegetation.

25

26 The certificate holder describes that, based on the design, site contamination from the
27 proposed battery storage systems would be unlikely. If a module, which provides secondary
28 spill containment, were to leak, any spill would be contained inside the storage container
29 (tertiary spill containment) and would be cleaned up as soon as it was discovered. The
30 certificate holder represents that the proposed battery storage systems would be electronically
31 monitored for function and operability and inspected monthly by O&M personnel. The
32 Department recommends Council consider the certificate holder’s representation of monthly
33 battery storage system inspections to be a binding representation, and necessary to minimize
34 the potential for site contamination from equipment malfunction. Further, the Department
35 recommends Council impose a requirement that the certificate holder provide evidence, on an
36 annual basis, of active property coverage under its commercial business insurance policy from
37 high loss catastrophic events including but not limited to an onsite explosion or fire. To ensure
38 that the certificate holder has the ability to restore the site to a useful, non-hazardous
39 condition, the Department recommends Council impose the following condition:

40

41

42

³³ OAR 345-022-0050(1).

1 **Recommended Retirement and Financial Assurance Condition 6 (OPR-RF-01):**

2 During facility operation, the certificate holder shall:

- 3 (a) Conduct monthly inspections of the battery storage systems, in accordance with
4 manufacturer specifications. The certificate holder shall maintain
5 documentation of inspections, including any corrective actions, and shall submit
6 copies of inspection documentation in its annual report to the Department.
7 (b) Provide evidence in its annual report to the Department of active property
8 coverage under its commercial business insurance from high loss-catastrophic
9 events, including but not limited to, onsite fire or explosion.

10 [Final Order on AMD2, Retirement and Financial Assurance Condition 6]

11
12 Subject to compliance with the recommended condition identified above, the Department
13 recommends the Council find that the site of the facility, with proposed changes, could be
14 restored adequately to a useful, non-hazardous condition following permanent cessation of
15 facility construction or operation.

16
17 *Estimated Cost of Site Restoration*

18
19 OAR 345-022-0050(2) requires the Council to find that the certificate holder continues to have a
20 reasonable likelihood of obtaining a bond or letter of credit in a form and amount necessary to
21 restore the site of the facility, with proposed changes, to a useful non-hazardous condition.

22
23 In RFA2, the certificate holder provides a site restoration cost estimate for the proposed battery
24 storage systems of approximately \$279,000. The site restoration cost estimate was prepared by
25 TetraTech, the certificate holder’s consultant. The TetraTech employee responsible for
26 developing the restoration cost estimate has 24 years of relevant experience as an estimator
27 and as an electrical contractor.

28
29 The scope of work and individual tasks were established using professional experience, in
30 collaboration with Tetra Tech’s engineering staff. The certificate holder evaluated labor
31 requirements, equipment needs and duration for each of the tasks and actions identified for
32 site restoration. Production rates were based on professional knowledge and published
33 standards, including review of “RS Means,” a construction cost estimating software. Labor and
34 equipment rates were obtained based on US Department of Labor wage determinations.
35 Typical industry standards were applied for contingency, overhead and fee.

36
37 Based on this information, the Department recommends Council conclude that the certificate
38 holder’s consultant, TetraTech, has the experience necessary to adequately and accurately
39 prepare a cost estimate for decommissioning and restoration of battery storage system sites, as
40 presented in Table 4, *Proposed Battery Storage System Site Restoration Cost Estimate*.

Table 4: Proposed Battery Storage System Site Restoration Cost Estimate

Restoration Activity	30 MW Battery Storage System	20 MW Battery Storage System
<i>Proposed Battery Storage Systems</i>		
Field Management	\$20,115	\$13,410
Battery Removal and Disposal	\$55,883	\$37,256
Removal and Disposal of Structures and Components	\$27,783	\$18,522
Concrete Breaking and Excavation	\$12,023	\$8,015
Concrete Transport Offsite	\$16,487	\$10,991
Underground Utility Removal	\$3,304	\$2,203
Restoration	\$9,982	\$6,655
15% Subcontractor Markup (Overhead + Fees)	\$21,837	\$14,558
Subtotal, per Battery Storage System	\$167,414	\$111,610
Subtotal (Q3 2018 Dollars) =	\$279,024	
<i>Applied Contingencies*</i>		
1% Performance Bond ¹	\$2,790	
10% Administration and Project Management ²	\$27,902	
10% Future Development Contingency ³	\$27,902	
Proposed Changes, Total (Q3 2018 Dollars) =	\$337,618	
Proposed Changes, Total (Q3 2018 Dollars) ⁵ =	\$338,000	
Facility, as approved (Q3 2018 Dollars) ⁵ =	\$19,200,000	
Facility, with Proposed Changes =	\$19,538,000	
*Notes: The Department recommends Council apply additional contingencies, consistent with those applied to the approved facility, as follows:		
1. 1% to account for the cost of a performance bond that would be posted by the contractor as assurance that the work will be completed as agreed.		
2. 10% for the Department's administrative and management expenses.		
3. 10% for future uncertainties such as changes in environmental standards or other legal requirements, availability of disposal sites, and the cost of labor and equipment.		
4. Rounded to nearest 1,000		
5. Retirement cost estimate, as approved in Final Order on ASC, equaled \$18.1 million in Q1 2015 dollars. The Department provides an amount adjusted for inflation based on Q1 2018 dollars.		

1
2 Based on the increase in estimated site restoration cost for the facility, with proposed changes,
3 the Department recommends the Council amend Retirement and Financial Assurance Condition
4 5 (PRE-RF-02) as follows:

5
6 **Recommended Amended Retirement and Financial Assurance Condition 5 (PRE-RF-**
7 **02):** Before beginning construction of the facility, the certificate holder shall submit to
8 the State of Oregon, through the Council, a bond or letter of credit naming the State of
9 Oregon, acting by and through the Council, as beneficiary or payee. The initial bond or
10 letter of credit amount for the facility is \$19.5 ~~\$18.1~~ million dollars (Q1 ~~2015~~ 2018 dollars)

1 to be adjusted to the date of issuance, and adjusted on an annual basis thereafter, as
2 described in sub-paragraph (b) of this condition:

3 (a) The certificate holder may adjust the amount of the initial bond or letter of credit
4 based on the final design configuration of the facility. Any revision to the
5 restoration costs should be adjusted to the date of issuance as described in (b) and
6 subject to review and approval by the Council.

7 (b) The certificate holder shall adjust the amount of the bond or letter of credit using
8 the following calculation:

9 1) Adjust the amount of the bond or letter of credit (expressed in ~~Q1 2015 dollars~~
10 Q3 2018 dollars) to present value, using the U.S. Gross Domestic Product
11 Implicit Price Deflator, ChainWeight, as published in the Oregon Department of
12 Administrative Services' "Oregon Economic and Revenue Forecast" or by any
13 successor agency and using the ~~first quarter 2015~~ third quarter 2018 index
14 value and the quarterly index value for the date of issuance of the new bond or
15 letter of credit. If at any time the index is no longer published, the Council shall
16 select a comparable calculation to adjust ~~first quarter 2015~~ third quarter 2018
17 dollars to present value.

18 2) Round the result total to the nearest \$1,000 to determine the financial
19 assurance amount.

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

22 (d) The certificate holder shall use a form of bond or letter of credit approved by the
23 Council. The certificate holder shall describe the status of the bond or letter of
24 credit in the annual report submitted to the Council under OAR 345-026-0080. The
25 bond or letter of credit shall not be subject to revocation or reduction before
26 retirement of the facility site.

27 [Final Order on ASC, Retirement and Financial Assurance Condition 5; Amended in
28 Final Order on AMD2]

29
30 Based on compliance with recommended amended Retirement and Financial Assurance
31 Condition 5 (PRE-RF-02), the Department recommends that the Council find that retirement
32 cost estimate, with applied contingencies, is a reasonable estimate of an amount satisfactory to
33 restore the proposed battery storage system sites to a useful, non-hazardous condition.

34
35 *Ability of the Applicant (Certificate Holder) to Obtain a Bond or Letter of Credit*

36
37 OAR 345-022-0050(2) requires the Council to find that the applicant (certificate holder) has a
38 reasonable likelihood of obtaining a bond or letter of credit in a *form* and amount necessary to
39 restore the facility site, with proposed changes, to a useful non-hazardous condition [Emphasis
40 added]. A bond or letter of credit provides a site restoration remedy to protect the state of
41 Oregon and its citizens if the certificate holder fails to perform its obligation to restore the site.
42 The bond or letter of credit must remain in force until the certificate holder has fully restored
43 the site. OAR 345-025-0010(8) establishes a mandatory condition, Retirement and Financial
44 Assurance Condition 4 (PRE-RF-01), which ensures compliance with this requirement.

1
2 Based on the estimate shown in Table 4, *Proposed Battery Storage System Site Restoration Cost*
3 *Estimate* the value of the financial assurance bond or letter of credit for restoring the site of the
4 facility, with proposed changes, would be approximately \$19.5 million (Q3 2018 dollars),
5 adjusted annually as described in the recommended amended condition above. To
6 demonstrate its ability to receive an adequate bond or letter of credit, the certificate holder
7 refers to a June 8, 2017 letter from Wells Fargo Bank included as part of the record for Request
8 for Amendment 1. The letter states that “[Wells Fargo] has an ongoing relationship with NEER
9 and there is a reasonable likelihood that we will provide a letter of credit for this project should
10 it be required... understanding that the potential liability of the letter of credit could total an
11 amount of up to eighteen million one hundred thousand dollars (18,100,000).”³⁴

12
13 Because the restoration cost of the proposed battery storage systems represent less than 1
14 percent of the total restoration cost, and the increase is primary due to inflation, the
15 Department recommends Council consider the previously provided bank letter sufficient for
16 representing a reasonable likelihood of obtaining a bond or letter of credit in the amount
17 necessary for site restoration. Additionally, as described above and in accordance with
18 Retirement and Financial Assurance Condition 5, construction cannot begin on the facility until
19 the Department receives a satisfactory bond or letter of credit.

20
21 Subject to compliance with existing and recommended amended conditions, the Department
22 recommends the Council find that the facility, with proposed changes, can be restored
23 adequately to a useful, non-hazardous condition following permanent cessation of construction
24 or operation of the proposed facility. Additionally, the Department recommends that the
25 Council find that the certificate holder has a reasonable likelihood of obtaining a bond or letter
26 of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-
27 hazardous condition.

28
29 **Conclusions of Law**

30
31 Based on the foregoing findings of fact, and subject to compliance with the Retirement and
32 Financial Assurance conditions, the Department recommends that the Council find that the
33 facility, with proposed changes, would comply with the Council’s Retirement and Financial
34 Assurance standard.

35
36
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38

³⁴ WRWAMD2Doc11 Complete Request for Amendment 2, Section 6.1.5. 2018-09-17 and WRWAMD1Doc20 Final Order on Amendment 1, p. 15, 2017-08-25.

1 **III.H. Fish and Wildlife Habitat: OAR 345-022-0060**
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 consistent with:*

5
6 *(1) The general fish and wildlife habitat mitigation goals and standards of OAR 635-*
7 *415-0025(1) through (6) in effect as of February 24, 2017****
8

9 **Findings of Fact**
10

11 The EFSC Fish and Wildlife Habitat standard requires the Council to find that the design,
12 construction and operation of a facility is consistent with the Oregon Department of Fish and
13 Wildlife’s (ODFW) habitat mitigation goals and standards, as set forth in OAR 635-415-0025.
14 This rule creates requirements to mitigate impacts to fish and wildlife habitat, based on the
15 quantity and quality of the habitat as well as the nature, extent, and duration of the potential
16 impacts to the habitat. The rule also establishes a habitat classification system based on value
17 the habitat would provide to a species or group of species. There are six habitat categories;
18 Category 1 being the most valuable and Category 6 the least valuable.
19

20 The analysis area for potential impacts to fish and wildlife habitat, as defined in the project
21 order, is the area within the site boundary and extending ½-mile from all ground-disturbing
22 activities. Because the amendment request does not include changes to the previously
23 approved site boundary, the evaluation under the Fish and Wildlife Habitat standard focuses on
24 potential impacts within and extending ½-mile from the proposed battery storage system sites.
25

26 *Habitat Types and Categories in the Analysis Area*
27

28 Based on review of ASC Exhibit P, previously identified habitat category, type and subtypes
29 within and extending ½-mile from the proposed battery storage system sites include:
30

- 31 • Grassland: Exotic Annual and Native Perennial (habitat categories 2, 3 and 4)
 - 32 • Developed: Irrigated Agriculture, Dryland Wheat, and Other (habitat category 6)
- 33

34 *Potential Impacts to Fish and Wildlife Habitat*
35

36 The proposed battery storage system sites would be located within previously approved
37 micrositing corridors and would permanently impact up to 5 acres, each, entirely within
38 Category 6 habitat (dryland wheat). Temporary impacts would also occur within Category 6
39 habitat (dryland wheat), but would occur within the disturbance footprint evaluated in the *Final*
40 *Order on ASC* for the substation and O&M building sites, and therefore is assumed not to result
41 in new temporary disturbance.
42

43 The habitat assessment of the proposed battery storage system sites, Category 6 habitat, is
44 based upon the assessment approved in Council’s 2016 *Final Order on the ASC*. Based upon

1 review of aerial imagery, the Department confirms that the underlying land use is agricultural
2 and agrees that the potential temporary and permanent impacts from the proposed battery
3 storage system sites would occur within Category 6 habitat.³⁵ Impacts to Category 6 habitat do
4 not require compensatory mitigation under the Council's Fish and Wildlife Habitat standard.

5
6 *Potential Impacts to State Sensitive Species*

7
8 Construction and operation of the proposed battery storage systems could impact previously
9 identified State sensitive species within Category 2, 3 and 4 habitat present within ½-mile of the
10 proposed battery storage system sites. It was concluded during the review of the ASC that
11 potential facility impacts could include vehicle and equipment collision, as well as noise-related
12 disturbances during critical life stages (breeding and nesting); these same impacts could occur
13 during construction of the battery storage systems.³⁶ Based on review of State sensitive species
14 surveys conducted by the certificate holder in 2010-2013, Grasshopper sparrow nests were
15 identified within ½-mile of the proposed battery storage system sites.

16
17 Council previously imposed conditions to mitigate potential construction and operational
18 impacts as described above, including potential vehicle and equipment collision and noise-
19 related disturbances during critical life stages for nesting birds. Previously imposed conditions
20 that would minimize potential impacts to State sensitive species identified within ½-mile of the
21 proposed battery storage system sites are summarized below:

- 22
- 23 • **Fish and Wildlife Habitat Condition 1 (PRE-FW-01)** requires that, prior to construction,
24 the certificate holder conduct a field-based habitat survey of all areas to be affected by
25 facility components, and locations of any identified active raptor and other bird nests, to
26 confirm the habitat categories of impacted areas. The pre-construction habitat
27 assessment must be based upon a protocol approved by the Department in consultation
28 with ODFW. The pre-construction habitat assessment is used to confirm the
29 compensatory mitigation requirement and identify presence of State sensitive species.
 - 30 • **Fish and Wildlife Habitat Condition 2 (GEN-FW-01)** requires that, during construction
31 and operation, the certificate holder impose a 20 mile per hour speed limit on new or
32 improved private access roads.
 - 33 • **Fish and Wildlife Habitat Condition 7 (CON-FW-03)** requires that, during construction,
34 the certificate holder employ a qualified professional to provide environmental training
35 to all personnel related to sensitive species, avoidance measures, exclusion areas, and
36 reporting requirements.
 - 37 • **Fish and Wildlife Habitat Condition 8 (PRE-FW-03)** requires that, during construction,
38 the certificate holder flag all sensitive areas as restricted work areas, including active
39 state sensitive species bird nests.
- 40

³⁵ Google Earth 2015

³⁶ WRWAPPDoc139-16 ASC Exhibit P. p. 29-30. 2015-07-01.

1 In addition, Council previously imposed Fish and Wildlife Habitat Condition 4 (PRE-FW-02)
2 requiring that the certificate holder, prior to construction, receive concurrence from the
3 Department in consultation with ODFW, of its draft Wildlife Monitoring and Mitigation Plan
4 (WMMP) (Attachment D of this order). The draft WMMP includes initial concepts for short- and
5 long-term monitoring and mitigation of wildlife impacts.

6
7 **Conclusions of Law**

8
9 Based on the foregoing findings of fact and conclusions, and subject to compliance with existing
10 site certificate conditions, the Department recommends the Council find that facility, with
11 proposed changes, would continue to comply with the Council’s Fish and Wildlife Habitat
12 standard.

13
14 **III.I. Threatened and Endangered Species: OAR 345-022-0070**

15
16 *To issue a site certificate, the Council, after consultation with appropriate state agencies,*
17 *must find that:*

18
19 *(1) For plant species that the Oregon Department of Agriculture has listed as*
20 *threatened or endangered under ORS 564.105(2), the design, construction and*
21 *operation of the proposed facility, taking into account mitigation:*

22
23 *(a) Are consistent with the protection and conservation program, if any, that the*
24 *Oregon Department of Agriculture has adopted under ORS 564.105(3); or*

25
26 *(b) If the Oregon Department of Agriculture has not adopted a protection and*
27 *conservation program, are not likely to cause a significant reduction in the*
28 *likelihood of survival or recovery of the species; and*

29
30 *(2) For wildlife species that the Oregon Fish and Wildlife Commission has listed as*
31 *threatened or endangered under ORS 496.172(2), the design, construction and*
32 *operation of the proposed facility, taking into account mitigation, are not likely to*
33 *cause a significant reduction in the likelihood of survival or recovery of the species.*

34
35 **Findings of Fact**

36
37 The Threatened and Endangered Species standard requires the Council to find that the design,
38 construction, and operation of a proposed facility, or facility with proposed changes, are not
39 likely to cause a significant reduction in the likelihood of survival or recovery of a fish, wildlife,
40 or plant species listed as threatened or endangered by Oregon Department of Fish and Wildlife
41 (ODFW) or Oregon Department of Agriculture (ODA). For threatened and endangered plant
42 species, the Council must also find that a proposed facility, or facility with proposed changes, is
43 consistent with an adopted protection and conservation program from ODA. Threatened and
44 endangered species are those listed under ORS 564.105(2) for plant species and ORS 496.172(2)

1 for fish and wildlife species. For the purposes of this standard, threatened and endangered
2 species are those identified as such by either the Oregon Department of Agriculture or the
3 Oregon Fish and Wildlife Commission.³⁷

4
5 The analysis area for threatened or endangered plant and wildlife species is the area within and
6 extending 5-miles from the site boundary.

7
8 *Potential Impacts to Identified Threatened and Endangered Species*

9
10 In order to identify endangered and threatened species that might occur within the analysis
11 area, the certificate holder, from 2011 through 2013, conducted literature review and field
12 surveys. Two state listed threatened or endangered species were identified and observed
13 within the site boundary, Laurent's milkvetch - a State-listed threatened plant species; and
14 Washington ground squirrel - a State-listed threatened wildlife species. As described in Section
15 III.H *Fish and Wildlife Habitat* of this order, temporary and permanent disturbance associated
16 with the proposed battery storage system sites would occur within Category 6 habitat (dryland
17 wheat) and would not be expected to result in direct impacts to suitable habitat for the two
18 previously observed state listed species. However, as described in the ASC, direct mortality of
19 these species could occur from equipment and vehicle collision during access and egress to the
20 facility; this impact also applies to the proposed battery storage system sites.³⁸

21
22 Council previously imposed Threatened and Endangered Species Condition 3 (PRE-TE-03)
23 requiring that the certificate holder conduct a pre-construction survey for Laurent's milkvetch
24 and flag and avoid areas where the species is located. However, the condition did not specify
25 the sensitive plant survey area. The Department recommends Council amend the condition to
26 specify the survey area, consistent with the survey distances and methodologies the certificate
27 holder conducted in preparation of the ASC.³⁹

28
29 **Amended Threatened and Endangered Species Condition 3 (PRE-TE-03):** To avoid
30 potential impacts to Laurent's milkvetch, the certificate holder must:

- 31 i. Conduct preconstruction plant surveys in suitable habitat for Laurent's milkvetch
32 within 1,000-feet of temporary and permanent disturbance from the 230 kV
33 intraconnection transmission line; and, within 500-feet of temporary and permanent
34 disturbance from all other facility components. If the species is found to occur, the
35 certificate holder must install protection flagging around the plant population and
36 avoid any ground disturbance within this zone.
- 37 ii. Ensure that any plant protection zone established under (a) above is included on
38 construction plans showing the final design locations.

³⁷ Although the Council's standard does not address federally-listed threatened or endangered species, certificate holders must comply with all applicable federal laws, including laws protecting those species, independent of the site certificate.

³⁸ WRWAPPDoc139-16 ASC Exhibit Q. p. 7. 2015-07-01.

³⁹ WRWAPPDoc139-16 Wheatridge ASC Exhibit P Fish and Wildlife Habitat, Attachment P-1, p. 14. 2015-07-01.

- 1 iii. If herbicides are used to control weeds, the certificate holder shall follow the
2 manufacturer’s guidelines in establishing a buffer area around confirmed
3 populations of Laurent’s milkvetch. Herbicides must not be used within the
4 established buffers.

5 [Final Order on ASC, Threatened and Endangered Species Condition 3; Amended in
6 Final Order on AMD2]

7
8 Council previously imposed Threatened and Endangered Species Condition 1 (PRE-TE-01)
9 requiring that, prior to construction, the certificate holder conduct a protocol-level survey in all
10 areas of suitable habitat within 1,000 feet of any ground disturbing activity for Washington
11 ground squirrel, to ensure avoidance of any temporary or permanent impacts to Washington
12 ground squirrel habitat.⁴⁰

13
14 Based upon compliance with previously imposed conditions and because the proposed battery
15 storage systems would be located within Category 6 habitat and would not provide suitable
16 habitat for the two state-listed species previously observed, the Department recommends
17 Council find that the facility with proposed changes would not be likely to cause a significant
18 reduction in the likelihood or survival of any species listed as threatened or endangered.

19
20 **Conclusions of Law**

21
22 Based on the foregoing findings of fact and conclusions, and subject to compliance with existing
23 site certificate conditions, the Department recommends that the Council find that the facility,
24 with proposed changes, would continue to comply with the Council’s Threatened and
25 Endangered Species standard.

26
27 **III.J. Scenic Resources: OAR 345-022-0080**

- 28
29 *(1) Except for facilities described in section (2), to issue a site certificate, the Council*
30 *must find that the design, construction and operation of the facility, taking into*
31 *account mitigation, are not likely to result in significant adverse impact to scenic*
32 *resources and values identified as significant or important in local land use plans,*
33 *tribal land management plans and federal land management plans for any lands*
34 *located within the analysis area described in the project order.*

35
36 **Findings of Fact**

37
38 OAR 345-022-0080 requires the Council to determine that the design, construction and
39 operation of the proposed facility are not likely to have a “significant adverse impact” to any

⁴⁰ Threatened and Endangered Species Condition 2 (PRE-TE-02) incorrectly references Fish and Wildlife Habitat Condition 3 for the finalization and implementation of the Wildlife Monitoring and Mitigation Plan (WMMP). The condition should reference Fish and Wildlife Habitat Condition 4. The Department recommends the Council administratively amend Threatened and Endangered Species Condition 3 to reference Fish and Wildlife Habitat Condition 4.

1 significant or important scenic resources and values within the analysis area. In applying the
2 standard set forth in OAR 345-022-0080(1), the Council assesses visual impacts of facility
3 structures on significant or important scenic resources described in “local land use plans, tribal
4 land management plans and federal land management plans for any lands located within the
5 analysis area described in the project order.” For purposes of this rule, “local land use plans”
6 includes applicable state land use and management plans.

7
8 The analysis area for the evaluation of scenic resources, as defined in the project order, is the
9 area within and extending 10-miles from the site boundary.

10
11 In RFA2, the certificate holder states that there are no significant or important scenic resources
12 in the analysis area. This is the same conclusion as was reached during the Council’s review on
13 the ASC. The certificate holder states in RFA2 that it reviewed the applicable management plans
14 to verify that there have not been any changes in scenic resources since Council’s decision on
15 the ASC. Furthermore, as represented by the certificate holder in RFA2, the battery storage
16 facilities would be approximately 20 feet high, co-located with the substations, and finished
17 with neutral colors to blend with the surrounding landscape.⁴¹ Based on the findings presented
18 here, the Department recommends that the Council find that the facility, with proposed
19 changes, will not result in significant adverse impact to any identified scenic resources and
20 values.

21
22 Council previously imposed Scenic Resources Condition 1 (GEN-SR-01) to minimize visual
23 impacts from substation and O&M building lighting; and Scenic Resources Condition 2 (GEN-SR-
24 02) to minimize visual impacts from facility component finish, vegetative clearing and facility
25 signage. In RFA2, the certificate holder represents that it would implement the same measures
26 for the proposed battery storage systems. Based on the certificate holder’s representation, the
27 Department recommends the Council amend Scenic Resources Condition 1 and 2, as follows:

28
29 **Recommended Amended Scenic Resources Conditions 1 (GEN-SR-01)**

30 To reduce visual impacts associated with lighting facility structures, other than lighting
31 on structures subject to the requirements of the Federal Aviation Administration or the
32 Oregon Department of Aviation, the certificate holder shall implement the following
33 measures:

- 34 a. Outdoor night lighting at the collector substations, ~~and~~ Operations and
35 Maintenance Buildings, and battery storage systems, must be
36 i. The minimum number and intensity required for safety and security;
37 ii. Directed downward and inward within the facility to minimize
38 backscatter and offsite light trespass; and
39 iii. Have motion sensors and switches to keep lights turned off when not
40 needed.

41 [Final Order on ASC, Scenic Resources Condition 1, Amended in Final Order on AMD2]
42

⁴¹ WRWAMD2 Request for Amendment 2. Section 6.1.8. 2018-09-17.

Recommended Amended Scenic Resources Conditions 2 (GEN-SR-02)

The certificate holder shall:

- a. Design and construct the O&M buildings and battery storage system facilities to be generally consistent with the character of agricultural buildings used by farmers or ranchers in the area, and the buildings shall be finished in a neutral color to blend with the surrounding landscape;
- b. Paint or otherwise finish turbine structures in a grey, white, or off-white, low reflectivity coating to minimize reflection and contrast with the sky, unless required otherwise by the local code applicable to the structure location.
- c. Design and construct support towers for the intraconnection transmission lines using either wood or steel structures and utilize finish with a low reflectivity coating;
- d. Finish substation structures and battery storage systems utilizing neutral colors to blend with the surrounding landscape;
- e. Minimize use of lighting and design lighting to prevent offsite glare;
- f. Not display advertising or commercial signage on any part of the proposed facility;
- g. Limit vegetation clearing and ground disturbance to the minimum area necessary to safely and efficiently install the facility equipment;
- h. Water access roads and other areas of ground disturbance during construction, as needed, to avoid the generation of airborne dust; and
- i. Restore and revegetate temporary impact areas as soon as practicable following completion of construction

[Final Order on ASC Scenic Resources Condition 2; Amended in Final Order on AMD2]

Conclusion of Law

Based on the foregoing findings of fact and conclusions, the Department recommends that the Council find that the facility, with proposed changes, complies with the Council’s Scenic Resources standard.

III.K. 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).

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(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 proposed amended 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 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.

In RFA2, the certificate holder provides a summary of the field and desktop archaeological surveys conducted for the entire 13,097 acres within the site boundary during the ASC review phase. Previous pedestrian field surveys recorded 21 archaeological sites and isolated finds within the site boundary, 7 of which were recommended for inclusion on the National Register of Historic Places and as such, would be protected by the Council’s Historic, Cultural, and Archaeological Resources standard. On the record of the ASC, SHPO agreed with the eligibility evaluation. However, the certificate holder asserts that the proposed battery storage system sites have been designed to avoid impacts to all known archeological, historic, and cultural resources deemed eligible or potentially eligible for NRHP listing.

Council previously imposed Historic, Cultural and Archaeological Resources Conditions 1 through 5 (PRE-HC-01, PRE-HC-02, CON-HC-01, PRE-HC-03, and CON-HC-02) to avoid and reduce the potential for adverse impacts to historic, cultural, and archaeological resources. Specific to the proposed battery storage systems, Historic, Cultural, and Archeological Resources Condition 3 requires that onsite construction personnel are trained to identify cultural and archaeological resources, and understand the requirements if such resources are discovered during construction, and Historic, Cultural, and Archeological Resources Condition 5 (CON-HC-02) outlines protocols to be followed if archeological or cultural resources are inadvertently discovered during construction.

Based upon the analysis presented above and subject to compliance with existing conditions, the Department recommends that Council find that the facility, with proposed changes, would not be likely to result in significant adverse impacts to resources protected by the Council’s Historic, Cultural and Archaeological Resources standard.

1 **Conclusions of Law**
2

3 Based on the foregoing analysis, and subject to compliance with existing conditions, the
4 Department recommends the Council find that the facility, with proposed changes, would
5 continue to comply with the Council’s Historic, Cultural, and Archaeological Resources
6 Standard.
7

8 **III.L. Recreation: OAR 345-022-0100**
9

10 *(1) Except for facilities described in section (2), to issue a site certificate, the Council must*
11 *find that the design, construction and operation of a facility, taking into account*
12 *mitigation, are not likely to result in a significant adverse impact to important*
13 *recreational opportunities in the analysis area as described in the project order. The*
14 *Council shall consider the following factors in judging the importance of a recreational*
15 *opportunity:*
16

17 *(a) Any special designation or management of the location;*

18 *(b) The degree of demand;*

19 *(c) Outstanding or unusual qualities;*

20 *(d) Availability or rareness;*

21 *(e) Irreplaceability or irretrievability of the opportunity.*

22 ***
23

24 **Findings of Fact**
25

26 The Recreation standard requires the Council to find that the design, construction, and
27 operation of a facility would not likely result in significant adverse impacts to “important”
28 recreational opportunities. Therefore, the Council’s Recreation standard applies only to those
29 recreation areas that the Council finds to be “important,” utilizing the factors listed in the sub-
30 paragraphs of section (1) of the standard. The importance of recreational opportunities is
31 assessed based on five factors outlined in the standard: special designation or management,
32 degree of demand, outstanding or unusual qualities, availability or rareness, and irreplaceability
33 or irretrievability of the recreational opportunity. The certificate holder evaluates impacts to
34 important recreational opportunities based on the potential of construction or operation of the
35 facility, with proposed changes, to result in any of the following: direct or indirect loss of an
36 important recreational opportunity, excessive noise, increased traffic, and visual impacts of
37 facility structures or plumes.
38

39 In accordance with OAR 345-001-0010(59)(d) and consistent with the study area boundary, the
40 analysis area for recreational opportunities is the area within and extending 5 miles from the
41 site boundary.
42
43
44

1 Recreational Opportunities within the Analysis Area

2
3 Important recreational opportunities within the 5-mile analysis area include:⁴²

- 4
- 5 • Oregon National Historic Trail High-Potential Segment (1.2 miles from site boundary)
- 6 • Oregon Trail Well Spring Interpretive Site (1.2 miles from site boundary)
- 7 • Echo Meadows Site/Oregon Trail Area of Critical Environmental Concern (2.5 miles from
- 8 site boundary)
- 9 • Blue Mountain State Scenic Byway (OR-74) (2.6 miles from site boundary)
- 10 • Morrow County Fairgrounds (3.0 miles from site boundary)
- 11 • Willow Creek Water Park (3.0 miles from site boundary)⁴³
- 12

13 Evaluation of Potential Impacts to Important Recreation Opportunities

14
15 Under the Council’s Recreation standard, the Council must find that, taking into account
16 mitigation, the facility, with proposed changes, is not likely to result in a significant adverse
17 impact to those identified important recreational opportunities. The Department presents its
18 evaluation of potential impacts below.

19
20 As presented above, the six identified important recreational opportunities within the 5-mile
21 analysis area are located between 1.2 to 3 miles from the site boundary, and would be located
22 at greater distances from the proposed battery storage system sites based on its location within
23 the site boundary.

24
25 *Potential Direct or Indirect Loss of Recreational Opportunity*

26
27 The proposed battery storage systems would be located within previously approved site
28 boundary area, entirely within private property, and would not be located on or within any of
29 the identified important recreational opportunities. Therefore, the facility, with proposed
30 changes, would not physically disturb, or result in ground disturbance, to the important
31 recreational opportunities identified within the analysis area. The facility, with proposed
32 changes, would also not require any temporary or permanent closure or removal of the
33 important recreation opportunities to public use. Therefore, the Department recommends the
34 Council find that the facility, with proposed changes, would not be expected to result in direct
35 or indirect loss to important recreational opportunities within the analysis area.

36

⁴² WRWAPPDoc139-20 ASC Exhibit T. 2015-07-01.

⁴³ WRWAPPDoc196. Final Order on ASC. 2016-05-24. In the Final Order on ASC, the Council disagreed with the certificate holder’s representation that Willow Creek Water Park met the criteria for an “important” recreational opportunity. However, the Council included an evaluation of potential impacts to this recreational opportunity.

1 *Potential Noise Impacts*

2

3 *Construction*

4

5 The proposed battery storage systems would generate construction-related noise. The
6 certificate holder describes that construction related noise would be short-term and
7 intermittent. Site preparation and construction activities for the proposed battery storage
8 systems would include gravel delivery and placement; underground utility work; concrete pad
9 and foundation installation; container and battery delivery and installation.⁴⁴ These activities
10 are similar to activities described in the ASC for wind facility construction; therefore, the
11 Department refers to construction equipment noise levels presented in ASC Exhibit X, which
12 range from 42 (crane) to 56 (loader/dozer) dBA, at 2,000 feet.

13

14 While not specifically addressed in RFA2 Section 6.1.10 *Recreation*, the Department relies upon
15 information provided in ASC Exhibit X and RFA2 Section 6.3.1 *Noise Control Regulation* to
16 evaluate potential construction-related noise impacts at the nearest recreational opportunity
17 from the site boundary, Oregon Trail Well Spring Interpretive Site (which is also the closest
18 point of the Oregon Trail High-Potential Segment) located approximately 1.2 miles from the site
19 boundary. The Department acknowledges that the analysis area extends 5-miles from the site
20 boundary, but presents an evaluation of impacts at the nearest important recreational
21 opportunity as a proxy for potential impacts at further distances from the site boundary.

22

23 Existing Noise Control Condition 1 (CON-NC-01) would reduce noise impacts during
24 construction by requiring the use of exhaust mufflers on combustion engine-powered
25 equipment, use of air-inlet silencers, shrouds and shields, as appropriate; and requires that the
26 certificate holder establish a noise complaint response system, including a system for the
27 certificate holder to receive and resolve noise complaints.

28

29 Based on the low dBA level expected at the nearest important recreational opportunity and
30 compliance with the above-reference condition, and because construction related noise would
31 be temporary and short-term in duration, the Department recommends that Council find that
32 construction of the facility, with proposed changes, would not be likely to result in significant
33 adverse noise impacts at the Oregon Trail Well Spring Interpretive Site. Because the other
34 important recreational opportunities within the analysis area are located at greater distances
35 from the facility site boundary than the Oregon Trail Well Spring Interpretive Site, the
36 Department recommends that Council conclude that potential construction-related impacts
37 from the facility, with proposed changes, at these important recreational opportunities would
38 also not likely be potentially significant or adverse.

39

40

41

42

⁴⁴ WRWAMD2 Request for Amendment 2. Section 4.4 Materials Analysis. 2018-09-17.

1 *Operation*

2

3 The proposed battery storage systems would generate operational noise from the following
4 sources

5

- 6 • Up to 56 heating, ventilation and air conditioning (HVAC) modules
- 7 • Up to 28 power inverters
- 8 • Up to 28 distribution transformers

9

10 The HVAC modules, power inverters, and distribution transformers would generate maximum
11 noise levels of 103, 92, and 72 dBA, respectively.⁴⁵ In RFA2, the certificate holder asserts that
12 operational noise from the facility, with proposed changes, would be similar to or less than
13 evaluated in ASC Exhibit T and Council’s *Final Order on ASC*. Based on noise modeling
14 conducted during the ASC phase, the Council previously found that facility-related operational
15 noise would be inaudible at all important recreational opportunities other than the Oregon Trail
16 Well Spring Interpretive Site where potential operational sound levels of 31 dBA, comparable to
17 a whisper or wind blowing, would be audible.⁴⁶

18

19 Council previously concluded that audible noise levels of 31 dBA would not interfere with the
20 recreational opportunities of the Oregon Trail Well Spring Interpretive Site. Therefore, based on
21 the Council’s previous findings and because the certificate holder asserts that operational noise
22 would be similar to or less than 31 dBA, the Department recommends Council find that
23 operation of the facility, with proposed changes, would not be likely to result in significant
24 adverse noise impacts to any important recreational opportunities within the analysis area.

25

26 *Potential Traffic Impacts*

27

28 *Construction*

29

30 The proposed battery storage systems would generate construction-related traffic. The
31 certificate holder did not identify any new roads or routes to be used during construction;
32 therefore, the Department assumes that the roads and routes previously identified for use
33 during construction would continue to be utilized. Roads that provide access to important
34 recreational opportunities, specifically Oregon Trail Well Spring Interpretive Site and Echo
35 Meadows/Oregon Trail ACEC, which could be impacted by construction-related traffic include
36 OR-207 and/or Bombing Range Road and Little Juniper Canyon Road. The certificate holder
37 asserts that the potential construction-related traffic impacts would not result in greater
38 impacts than evaluated in Council’s 2016 *Final Order on ASC*.

39

40 Council previously considered potential construction-related traffic impacts to the roads
41 identified above not likely to be significant or adverse because impacts would occur during the

⁴⁵ WRWAMD2Doc11. Request for Amendment 2. Attachment 3. 2018-09-17.

⁴⁶ WRWAPPDoc196. Final Order on ASC, p. 211. 2017-05-24

1 morning peak hours, when visitors are unlikely to arrive at the recreational opportunities. In
2 addition, Council imposed Public Services Condition 6 (PRE-PS-01) requiring that the certificate
3 holder implement a Traffic Management Plan, as approved by the Department, that would
4 include best management practices (BMP's) such as traffic control BMP's and reduction
5 practices to minimize potential construction-related traffic impacts.⁴⁷

6
7 Because construction of the facility, with proposed changes, is not expected to increase traffic
8 impacts compared to those considered in Council's *Final Order on the ASC*, where construction-
9 related traffic impacts at important recreational opportunities were not expected to be
10 significant or adverse, and based upon compliance with Public Services Condition 6 (PRE-PS-01),
11 the Department recommends Council find that construction-related traffic impacts would not
12 be likely to result in a significant adverse traffic impact to important recreational opportunities
13 within the analysis area.

14
15 *Operation*

16
17 The facility, with proposed changes, would generate operational-related traffic. However, the
18 certificate holder asserts that the proposed battery storage systems would not result in
19 changes to previously evaluated operational traffic impacts of 10 to 20 vehicle trips per day,
20 which were previously determined not likely to have a significant adverse impact to
21 recreational opportunity access roads.⁴⁸ Because RFA2 would not result in changes to the
22 expected number of permanent employees, the Department recommends Council find that
23 operational-traffic impacts would not be likely to result in a significant adverse impact to
24 important recreational opportunities within the analysis area.

25
26 *Visual Impacts*

27
28 The proposed battery storage systems would result in up to 5 acres, each, of permanent
29 disturbance and would be approximately 20-feet in height. Based on the low height,
30 intervening geographic and development features, and distance from important recreational
31 opportunities to site boundary ranging from 1.2 to 3 miles, and would be at greater distances to
32 proposed battery storage system sites, visibility and associated visual impacts would not be
33 expected at any of the important recreational opportunities within the analysis area.

⁴⁷ WRWAPPDoc196. Final Order on ASC. 2017-05-24. Council previously imposed Land Use Condition 13 (PRE-LU-06), which also requires that the certificate holder develop and implement a Traffic Management Plan during construction. Specifically, the condition states, "Before beginning construction, the certificate holder shall work with the Morrow County Road Department to identify specific construction traffic related concerns, and develop a traffic management plan that specific necessary traffic control measures to mitigate the effects of the temporary increase in traffic. The certificate holder must provide a copy of the traffic management plan to the department and Morrow County, and must implement the traffic management plan during construction." Because the requirement of this condition are redundant with Public Services Condition 6 (PRE-PS-01), the Department recommends in Section III.M *Public Services* of this order that Council remove the condition and amend Public Service Condition 6 (PRE-PS-01 to include any substantive requirements of the removed condition.

⁴⁸ WRWAPPDoc196. Final Order on ASC. 2017-04-28.

1 Because of the distance between the important recreational opportunities and the proposed
2 battery storage systems, as well as the existing intervening geographic and development
3 features, the Department recommends Council find that the changes proposed in the
4 amendment request would not alter that visibility impacts previously evaluated and
5 determined by Council not likely to be significant or adverse at any of the important
6 recreational opportunities within the analysis area.

7
8 **Conclusions of Law**

9
10 Based on the foregoing recommended findings of fact, and subject to compliance with existing
11 site certificate conditions, the Department recommends that the Council find that the facility,
12 proposed changes, would continue to comply with the Council's Recreation standard.

13
14 **III.M. Public Services: OAR 345-022-0110**

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

22
23 *(2) The Council may issue a site certificate for a facility that would produce power from*
24 *wind, solar or geothermal energy without making the findings described in section (1).*
25 *However, the Council may apply the requirements of section (1) to impose conditions on*
26 *a site certificate issued for such a facility.*

27 ***

28 **Findings of Fact**

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

38
39 In accordance with OAR 345-001-0010(59)(b) and consistent with the study area boundary, the
40 analysis area for potential impacts to public services from construction and operation of the
41 facility, with proposed changes, is defined as the area within and extending 10-miles from the
42 site boundary.

1 *Sewer and Sewage Treatment; Stormwater Drainage*

2

3 The proposed battery storage systems would not generate sewage or require sewage
4 treatment, nor require construction or expansion of public stormwater drainage facilities.
5 Therefore, construction and operation of the proposed battery storage systems would not
6 impact public and private providers of sewer, sewage treatment or stormwater drainage.

7

8 *Water*

9

10 Construction and operation of the proposed battery storage systems would result in water use.
11 Approximately 12,500 gallons of water would be used for road construction, concrete mixing,
12 dust suppression and other construction-related activities, similar to the water-use activities
13 associated with the facility, as approved. Water used for construction would be procured from
14 licensed sources in the vicinity of the facility, such as the Port of Morrow.⁴⁹ The certificate
15 holder relies upon correspondence submitted in ASC Exhibit U from four municipal water
16 suppliers, including the Port of Morrow, which confirmed adequate supply and capacity to
17 meet the facility's water use needs during construction. Based on confirmation from public
18 water providers obtained in 2014 during the ASC phase, and the minimal increase in
19 construction-related water use from the proposed battery storage systems, the Department
20 recommends Council find that construction of the facility, with proposed changes, would
21 continue not to be likely to result in significant adverse impacts on the ability of public or
22 private providers of water to deliver services.

23

24 Water used during proposed battery storage system operations would result from filling and
25 use of fire water tanks associated with the gas pressured deluge fire suppression systems. The
26 fire suppression system fire water tanks would obtain water from previously evaluated permit-
27 exempt wells to be located at the O&M buildings. Operational water withdrawn from facility-
28 specific wells would not result in impacts on the ability of public or private providers of water to
29 deliver services.

30

31 *Solid Waste Management*

32

33 *Construction*

34

35 Construction of the proposed battery storage systems would generate solid waste.
36 Construction related solid waste would include concrete waste from container and inverter
37 pads, erosion control materials, and packaging materials, similar to the types of solid waste
38 generated during construction of the facility, as approved. Council previously imposed Waste
39 Minimization Condition 2 (PRE-WM-01) and Public Service Condition 3 (CON-PS-01) requiring
40 that the certificate holder, prior to construction, develop a waste management plan, to be
41 implemented during construction. The conditions require that the plan include measures for
42 recycling and segregating waste, and discharging concrete wash water onsite, when possible.

⁴⁹ WRWAMD2 Request for Amendment 2. 2018-09-17. Section 4.4

1 Based on the low level of construction-related waste anticipated during proposed battery
2 storage system construction, and compliance with previously imposed conditions, the
3 Department recommends Council find that the facility, with proposed changes, would not likely
4 result in a significant adverse impact on the ability of public and private providers of solid waste
5 management to deliver services.

6
7 *Operations*

8
9 Operation of the proposed battery storage systems would generate waste during equipment
10 (i.e. batteries) replacement activities, anticipated every 10 to 15 years. The certificate holder
11 describes that battery cells contain lithium-ion electrolyte gel or liquid, which is potentially
12 hazardous. Spent battery cells would be disposed at the Chemical Waste Management facility
13 in Arlington, Oregon (“Arlington Landfill”). The Arlington Landfill is regulated by EPA and the
14 Oregon DEQ; and, maintains permits under the Resource Conservation and Recovery Act as well
15 as under the Toxic Substances Control Act. Additionally it is licensed to handle hazardous
16 materials, including transportation and disposal of hazardous wastes. The certificate holder
17 provides evidence that the Arlington Landfill’s operating capacity is greater than 100 years, with
18 3.7 million cubic yards in available capacity remaining.⁵⁰

19
20 Council previously imposed Public Services Condition 4 (OPR-PS-03) requiring that, during
21 operation, the certificate holder implement a waste management plan. The condition requires
22 that the certificate holder train employees to minimize and recycle solid waste; segregate
23 hazardous and non-hazardous waste; and utilize a licensed waste hauler for offsite removal and
24 transport to a licensed waste management facility. The Department recommends Council
25 amend Public Services Condition 4 (OPR-PS-03) to clarify that the requirements apply to waste
26 generated from proposed battery storage system operations. The Department also
27 recommends Council incorporate the certificate holder’s representation that handling and
28 replacement of batteries would follow guidelines in 49 CFR 173.185 Department of
29 Transportation Pipeline and Hazardous Material Administration. 49 CFR 173.185 includes
30 requirements for prevention of dangerous evolution of heat; prevention of short circuits;
31 prevention of damage to terminals; and, prevention of contact with other batteries or
32 conductive materials. Recommended amended Public Services Condition 4 (OPR-PS-03) is as
33 follows:

34
35
36
37
38
39

⁵⁰ WRWAMD2Doc11. Request for Amendment 2. 2018-09-17.

1 **Recommended Amended Public Services Condition 4 (OPR-PS-03):**⁵¹

2 (a) ~~Prior to operation, During operation,~~ the certificate holder shall submit to the
3 Department for approval its ~~implement a~~ Operational Waste Management Plan
4 that includes but is not limited to the following ~~measures~~:

- 5 1. Onsite handling procedure for operational replacement of damaged, defective or
6 recalled lithium-ion batteries. The procedure shall identify applicable 49 CFR
7 173.185 provisions and address, at a minimum, onsite handling, packaging,
8 interim storage, and segregation requirements.
- 9 2. Training employees to handle, replace, and store damaged, defective or recalled
10 lithium-ion batteries; minimize and recycle solid waste.
- 11 3. Recycling paper products, metals, glass, and plastics.
- 12 4. Recycling used oil and hydraulic fluid.
- 13 5. Collecting non-recyclable waste for transport to a local landfill by a licensed
14 waste hauler or by using facility equipment and personnel to haul the waste.
15 Waste hauling by facility personnel within Morrow County shall be performed in
16 compliance with the Morrow County Solid Waste Management Ordinance,
17 Section 5.000 Public Responsibilities and 5.030 Responsibility for Propose
18 Disposal of Hazardous Waste which requires that all loads be covered and
19 secured.
- 20 6. Segregating all hazardous and universal, non-recyclable wastes such as used oil,
21 oily rags and oil-absorbent materials, mercury-containing lights, lithium-ion
22 batteries, and lead-acid and nickel-cadmium batteries, and replaced, damaged,
23 defective or recalled lithium-ion batteries for disposal by a licensed firm
24 specializing in the proper recycling or disposal of hazardous and universal
25 wastes.

26 (b) During operation, the certificate holder shall implement the approved Operational
27 Waste Management Plan.

28 [Final Order on ASC, Public Services Condition 4; Amended in Final Order on AMD2]

29
30 Based on the available capacity and ability of Arlington Landfill to receive the potential quantity
31 and types of waste generated during proposed battery storage system operations, and
32 compliance with the recommended amended site certificate condition, the Department
33 recommends the Council find that operation of the facility, with proposed changes, would not
34 likely result in a significant adverse impact on the ability of public and private providers of solid
35 waste management to deliver services.

36

⁵¹ WRWAMD2Doc6. pRFA2 Special Advisory Group Comment Morrow County. In a comment on pRFA2, on behalf of the Special Advisory Group, Morrow County Planning Department commented that Section 5.000 (Public Responsibilities) and 5.050 (Responsibility for Proper Disposal of Hazardous Waste) of the Morrow County Solid Waste Management Plan and Ordinance would apply to the proposed battery storage systems. Because this ordinance was previously included in Public Services Condition 4 (OPR-PS-03), but not the specific sections, the Department considers the inclusion of the ordinance section reference administrative, and recommends Council include in the amended condition.

1 *Traffic Safety – Trip Generation*

2

3 *Construction*

4

5 The proposed battery storage systems would generate construction and operational traffic;
6 however, in RFA2, the certificate holder explains that potential traffic impacts (i.e. vehicle trip
7 generation) from construction of the proposed battery storage systems would not vary
8 significantly from the impacts evaluated by Council in the *Final Order on the ASC*.

9

10 The certificate holder previously identified that construction-related traffic would generate an
11 additional 192 round trips per day (384 one-way trips), with that number increasing to 288
12 round trips per day (576 one-way trips) during peak construction. Council previously imposed
13 Public Services Condition 6 (PRE-PS-01) requiring that, prior to construction, the certificate
14 holder coordinate with ODOT and county road officials to develop and implement a Traffic
15 Management Plan, as approved by the Department, that would include best management
16 practices (BMP's) to minimize potential construction-related traffic impacts. BMP's include
17 maintaining emergency vehicle access to private property, using chase vehicles if required by
18 ODOT, and notifying nearby landowners prior to the start of construction.⁵² As the proposed
19 battery storage system construction would not add significant numbers of construction
20 vehicles, would not alter the impacts previously evaluated, and based on the traffic impact
21 minimization measures to be implemented in accordance with Public Services Condition 6 (PRE-
22 PS-01), the Department recommends Council find that construction related traffic impacts (i.e.
23 vehicle trip generation) from the facility, with proposed changes, would not be likely to result in
24 a significant adverse impact to the ability of public or private providers of traffic safety.

25

26 *Operations*

27

28 The proposed battery storage system would generate operational-related traffic. However, the
29 certificate holder asserts that the proposed battery storage systems would not result in
30 changes to previously evaluated operational traffic impacts of 10 to 20 vehicle trips per day,
31 which were previously determined not likely to have a significant adverse impact to providers
32 of traffic safety services.⁵³ Because RFA2 would not result in changes to the expected number of
33 permanent employees, the Department recommends Council find that operational-traffic
34 impacts (i.e. vehicle trip generation) from the facility, with proposed changes, would continue

⁵² WRWAPPDoc196. Final Order on ASC. 2017-05-24. Council previously imposed Land Use Condition 13 (PRE-LU-06), which also requires that the certificate holder develop and implement a Traffic Management Plan during construction. Specifically, the condition states, "Before beginning construction, the certificate holder shall work with the Morrow County Road Department to identify specific construction traffic related concerns, and develop a traffic management plan that specific necessary traffic control measures to mitigate the effects of the temporary increase in traffic. The certificate holder must provide a copy of the traffic management plan to the department and Morrow County, and must implement the traffic management plan during construction." Because the requirements of this condition are redundant with Public Services Condition 6 (PRE-PS-01), the Department recommends in Section III.M *Public Services* of this order that Council remove the condition and amend Public Service Condition 6 (PRE-PS-01 to include any substantive requirements of the removed condition.

⁵³ WRWAPPDoc196. Final Order on ASC. 2017-04-28.

1 not to be likely to result in a significant adverse impact to the ability of public or private
2 providers of traffic safety.

3
4 *Traffic Safety – Hazards*

5
6 The proposed battery storage systems could result in impacts to traffic safety during transport
7 to and from the site. In RFA2, the certificate holder describes that transportation of lithium-ion
8 batteries is subject to 49 CFR 173.185 – Department of Transportation Pipeline and Hazardous
9 Material Administration. The regulations include requirements for prevention of a dangerous
10 evolution of heat, prevention of short circuits, prevention of damage to the terminals, and
11 requires that no battery come in contact with other batteries or conductive materials. As
12 described in Section III.B *Organizational Expertise* and above, in the evaluation of potential
13 impacts to public and private providers of solid waste management, the Department
14 recommends Council impose Recommended Organizational Expertise Condition 10 (GEN-OE-
15 04) and amend Public Services Condition 4 (OPR-PS-03) to ensure the certificate holder utilizes
16 a licensed hauler for battery transport and that onsite handling, storage and transport of
17 batteries satisfies the requirements of 49 CFR 173.185. Based on compliance with the
18 recommended new and amended conditions, the Department recommends Council find that
19 construction and operational-traffic impacts related to safety risks during battery transport to
20 and from the site would not be likely to result in a significant adverse impact to the ability of
21 public or private providers of traffic safety.

22
23 *Police Protection*

24
25 Construction and operation of the proposed battery storage systems is not expected to change
26 the previously estimated temporary or permanent number of workers previously evaluated in
27 the Council’s *Final Order on ASC*.⁵⁴ In RFA2, the certificate holder states that the proposed
28 battery storage system sites would be secured and restricted from the public via fencing.

29
30 In the *Final Order on the ASC* it was estimated that the facility would employ an average of 240
31 workers during construction and a maximum of 360 individuals during peak construction; and
32 approximately 10 to 20 permanent employees during operations.⁵⁵ Council previously imposed
33 Public Service Conditions 10 (CON-PS-02) and 12 (OPR-PS-04) requiring that, during
34 construction and operations, the certificate holder provide 24 hour private security, and ensure
35 that law enforcement agencies have up-to-date contact information of relevant facility staff,
36 respectively. Additionally, Council previously imposed Public Health and Safety Standards for
37 Wind Facilities Condition 2 (OPR-WF-01) requiring that facility substation be fenced with locked
38 gates. In RFA2, the certificate holder represents that the proposed battery storage system sites
39 would also be fenced with locked gates. Based on this representation, and to minimize
40 potential impacts to public and private providers of police services, the Department
41 recommends Council amend Public Health and Safety Standards for Wind Facilities Condition 2

⁵⁴ WRWAMD3Doc2 Preliminary Request for Amendment 2, Section 6.1.10, 2018-05-18.

⁵⁵ WRWAPPDoc196 Final Order on ASC, p. 215, 2017-05-24.

1 (OPR-WF-01), as described in Section III.P.1 *Public Health and Safety Standards for Wind Energy*
2 *Facilities*, to ensure the proposed battery storage system sites are fenced with locked gates.

3
4 The Department recommends Council find that construction and operation of the facility, with
5 proposed changes, in compliance with the existing and recommended amended condition,
6 would not likely result in a significant adverse impact on the ability of public and private police
7 providers to provide services.

8
9 *Fire Protection*

10
11 The proposed battery storage systems could, during an unanticipated fire-related emergency,
12 result in impacts to the ability of public and private providers of fire protection to provide
13 services.

14
15 While not specifically addressed in RFA2, the Department assumes, based on the requirements
16 of 49 CFR 173.185 as referenced by the certificate holder, that potential fire risk would result
17 from dangerous evolution of heat or short circuiting from malfunctioning or defective batteries
18 either as installed or if improperly handled and stored onsite. As described above, the
19 Department recommends Council impose Recommended Organizational Expertise Condition 10
20 (GEN-OE-04) and amend Public Services Condition 4 (OPR-PS-03) to ensure that onsite handling,
21 storage and transport of batteries satisfies the requirements of 49 CFR 173.185, which
22 minimizes potential of dangerous evolution of heat and short-circuiting.

23
24 If a heat or smoke detector is triggered within the proposed battery storage system, a gas
25 pressured deluge fire suppression system would be activated and would simultaneously
26 discharge water from all sprinkler heads. The certificate holder explains further that water is
27 considered to be the most effective fire suppressant for lithium ion batteries due to its ability to
28 both extinguish the fire and remove excess heat.⁵⁶ The proposed on-site fire protection
29 measures are consistent with battery manufacturer recommendations and are consistent with
30 fire codes.

31
32 The certificate holder contacted the Lone Rural Fire Department and the Echo Rural Fire
33 Department to identify concerns regarding potential impacts of the proposed battery storage
34 systems on their ability to provide fire protection services. In a comment provided in RFA2, Lone
35 Rural Fire Department confirmed that they would be able to provide service to the facility
36 including the proposed battery storage systems, and that the presence of the proposed battery
37 storage systems would not impact their ability to provide fire protection services. The
38 certificate holder also provides correspondence with the Echo Rural Fire Department, where
39 the Fire Department requests a 100 foot vegetation free zone be maintained around the
40 proposed battery storage system sites in the event of a wildland fire.⁵⁷ Based on the certificate
41 holder's representation that a 100 foot vegetation free zone would be maintained, and to

⁵⁶ WRWAMD2. Request for Amendment 2. 2018-09-17.

⁵⁷ *Id.*

1 minimize potential fire-risk related impacts, the Department recommends the Council adopt
2 the following site certificate condition:

3
4 **Recommended Public Services Condition 23 (GEN-PS-04):** The certificate holder shall
5 maintain a 100-foot setback from the battery storage system sites to vegetation.
6 [Final Order on AMD2, Public Services Condition 23]
7

8 Additionally, the Council previously imposed three conditions that would continue to apply to
9 the facility, with proposed change, that would further reduce potential impacts from the
10 proposed battery storage systems to fire protection service providers:

- 11
- 12 • **Public Services Condition 13 (PRE-PS-05)** requiring that, prior to construction, the
13 certificate submit to the Department for review and approval, in consultation with the
14 appropriate local fire protection districts (including the City of Heppner Volunteer Fire
15 Department, Lone Rural Fire Protection District, and Echo Rural Fire Protection District),
16 an Emergency Management Plan
- 17 • **Public Services Condition 18 (GEN-PS-03)** requiring that, prior to construction and
18 operation, the certificate holder provide worker fire prevention and response training
19 for personnel
- 20 • **Public Services Condition 19 (PRO-PS-02)** requiring that, prior to operation, the
21 certificate holder provide a final site plan to local fire protection districts and first-
22 responders identifying the number assigned to each turbine and the actual location of
23 all facility structures
24

25 As described in Section III.E *Land Use* of this order, the Department recommend that Land Use
26 Condition 3 (PRE-LU-01) be amended to require the certificate holder to submit a third-party
27 technical report for the building code review and fire system evaluation, to identify potential
28 hazards and mitigation measures for the proposed battery storage systems.⁵⁸ Recommended
29 Amended Land Use Condition 3 (PRE-LU-01) would ensure that the certificate holder design and
30 install appropriate fire suppression measures to address fire and safety risks posed by battery
31 storage system operation.
32

33 Based on compliance with existing and recommended amended conditions, and
34 representations obtained from local fire districts, the Department recommends Council find
35 that construction and operation of the facility, would not likely result in a significant adverse
36 impact on the ability of public and private fire protection providers to provide services.
37

38 *Housing, Schools, and Healthcare*

39
40 Construction and operation of the proposed battery storage systems would not contribute
41 substantial numbers of additional workers, compared to what was considered and approved by

⁵⁸ During its review of pRFA2, ODOE conferred with the Oregon State Fire Marshal's office, Jason Cain, on recommended amended Land Use Condition 3 (PRE-LU-01). 2018-07-13. No written comments received.

1 Council in the *Final Order on the ASC*. As described in the *Final Order on ASC*, Council found that
2 there was sufficient supply of hotel rooms and other housing options in the communities within
3 commuting distance to the facility site for the temporary influx of construction workers.
4 Additionally, the Council found that the estimated current and anticipated housing vacancies
5 within surrounding communities would provide adequate housing for the permanent
6 operational workforce would not have a substantial adverse impact on housing in the analysis
7 area. No significant adverse impacts to schools or the healthcare system are anticipated during
8 construction of the facility, with proposed changes, as the battery storage system would not
9 requires substantial additional workers during either construction or operation.

10
11 Based on the Council’s previous reasoning and because the facility, with proposed changes,
12 would not increase the expected number of temporary or permanent workers, the Department
13 recommends the Council find that the facility, with proposed changes, would not likely result in
14 a significant adverse impact on the ability of public and private providers of housing, schools,
15 and health care to deliver services.

16
17 **Conclusions of Law**

18
19 Based on the foregoing analysis, and subject to the existing, and recommended new and
20 conditions, the Department recommends that the Council find that the facility, with proposed
21 changes, would continue to comply with the Council’s Public Services standard.

22
23 **III.N. Waste Minimization: OAR 345-022-0120**

24
25 *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the*
26 *Council must find that, to the extent reasonably practicable:*

27
28 *(a) The applicant’s solid waste and wastewater plans are likely to minimize*
29 *generation of solid waste and wastewater in the construction and operation of the*
30 *facility, and when solid waste or wastewater is generated, to result in recycling and*
31 *reuse of such wastes;*

32
33 *(b) The applicant’s plans to manage the accumulation, storage, disposal and*
34 *transportation of waste generated by the construction and operation of the facility*
35 *are likely to result in minimal adverse impact on surrounding and adjacent areas.*

36
37 *(2) The Council may issue a site certificate for a facility that would produce power from*
38 *wind, solar or geothermal energy without making the findings described in section (1).*
39 *However, the Council may apply the requirements of section (1) to impose conditions on*
40 *a site certificate issued for such a facility.*

41 ***

1 **Findings of Fact**

2

3 The Waste Minimization Standard requires the Council to find that the certificate holder will
4 minimize the generation of solid waste and wastewater, and that the waste generated would
5 be managed to minimally impact surrounding and adjacent areas. Pursuant to OAR 345-022-
6 0020(2), the Council may issue a site certificate for a wind facility without making findings
7 regarding the Waste Minimization standard; however, the Council may impose site certificate
8 conditions based upon the requirements of the standard.

9

10 *Solid Waste and Wastewater*

11

12 *Construction*

13

14 Construction of the proposed battery storage systems would generate solid waste, but would
15 not be expected to generate wastewater other than concrete wash water. While the certificate
16 holder does not specify potential quantities of solid waste, the potential types of solid waste
17 are described as concrete waste from container and inverter pads, erosion control materials,
18 and packaging materials, similar to the types of solid waste to be generated by the facility, as
19 approved. Based on the quantity of materials needed during construction of the proposed
20 battery storage systems (i.e. 500 cubic yards of concrete; 5,200 tons of gravel and size of the
21 sites (5 acres, each), the Department considers that the quantities of solid waste would be
22 relatively low.

23

24 Council previously imposed Waste Minimization Condition 2 (PRE-WM-01) and Public Service
25 Condition 3 (CON-PS-01) requiring that the certificate holder, prior to construction, develop a
26 waste management plan, to be implemented during construction. The conditions require that
27 the plan include measures for recycling and segregating waste, and discharging concrete wash
28 water onsite, when possible. Based on the low level of construction-related waste and waste
29 water anticipated during proposed battery storage system construction, and compliance with
30 previously imposed conditions, the Department recommends Council find that the facility, with
31 proposed changes, would continue to minimize and manage solid waste and waste water,
32 resulting in minimal adverse impacts on surrounding and adjacent areas from construction of
33 the facility, with proposed changes.

34

35 *Operations*

36

37 Operation of the proposed battery storage system may generate incidental waste during repair
38 or replacement of electrical equipment, and periodic replacement of the batteries, expected
39 every 10 to 15 years.⁵⁹ Lithium-ion electrolyte gel or liquids within the self-contained battery
40 cells are potentially hazardous, but would not be extracted or handled onsite. The certificate
41 holder describes that battery components (modules) would be removed and disposed of or
42 recycled by a qualified vendor as needed to keep the facility operational. Battery modules,

⁵⁹ WRWAMD2Doc11 Complete Request for Amendment 2, Section 6.1.12. 2018-09-17.

1 when removed from the site, would be transported intact to their final destination either for
2 recycling or disposal to a licensed recycling or disposal facility. Routine storage of spent
3 batteries is not anticipated.

4
5 Council previously imposed Public Services Condition 3 (CON-PS-01), Waste Minimization
6 Condition 2 (PRE-WM-01) and Public Service Condition 4 (OPR-PS-03) requiring that, during
7 construction and operation, the certificate holder develop and implement waste management
8 plans, which include minimization measures such as recycling and segregating waste, and using
9 a licensed waste hauler for disposal of hazardous and universal wastes. In addition, as described
10 in Section III.B *Organizational Expertise* of this order, the Department recommends Council
11 impose Recommended Organizational Expertise Condition 10 (GEN-OE-04) to ensure the
12 certificate holder utilizes a licensed hauler for battery transport.

13
14 Based on the foregoing analysis, the likelihood of potential adverse impacts on surrounding and
15 adjacent areas from solid waste generated during operation of the facility, with proposed
16 changes, is low based on the limited quantity of waste that could be generated. Moreover,
17 compliance with previously imposed and recommended amended conditions would minimize
18 potential construction and operational solid waste and would require that the certificate holder
19 demonstrate use of licensed haulers for lithium-ion battery transport and disposal. For these
20 reasons, the Department recommends that the Council find that the facility, with proposed
21 changes, would continue to satisfy the requirements of the Waste Minimization standard.

22 23 **Conclusions of Law**

24
25 Based on the foregoing analysis, and subject to existing condition, the Department
26 recommends that the Council find that that facility, with proposed changes, would continue to
27 comply with the Council's Waste Minimization standard.

28 29 **III.O. Division 23 Standards**

30
31 The Division 23 standards apply only to "nongenerating facilities" as defined in ORS
32 469.503(2)(e)(K), except nongenerating facilities that are related or supporting facilities. The
33 facility, with proposed changes, would not be a nongenerating facility as defined in statute and
34 therefore Division 23 is not applicable to the facility, with proposed changes.

35 36 **III.P. Division 24 Standards**

37
38 The Council's Division 24 standards include specific standards for the siting of energy facilities,
39 including wind projects, underground gas storage reservoirs, transmission lines, and facilities
40 that emit carbon dioxide.

1 III.P.1. Public Health and Safety Standards for Wind Energy Facilities: OAR 345-024-0010

2
3 *To issue a site certificate for a proposed wind energy facility, the Council must find that the*
4 *applicant:*

- 5
6 *(1) Can design, construct and operate the facility to exclude members of the public from*
7 *close proximity to the turbine blades and electrical equipment.*
8 *(2) Can design, construct and operate the facility to preclude structural failure of the tower*
9 *or blades that could endanger the public safety and to have adequate safety devices and*
10 *testing procedures designed to warn of impending failure and to minimize the*
11 *consequences of such failure.*

12
13 **Findings of Fact**

14
15 OAR 345-024-0010 requires the Council to consider specific public health and safety standards
16 related to wind energy facilities. For a proposed facility, or facility with proposed changes, the
17 Council must evaluate a certificate holder’s proposed measures to exclude members of the
18 public from proximity to the turbine blades and electrical equipment, and the certificate
19 holder’s ability to design, construct and operate the proposed facility, or facility with proposed
20 changes, to prevent structural failure of the tower or blades and to provide sufficient safety
21 devices to warn of failure.

22
23 Based on the components of the amendment request, the Department considers that (2) is not
24 applicable and evaluates (1) related to the electrical equipment associated with the proposed
25 battery storage systems.

26
27 *Potential Public Health and Safety Impacts from Proximity to Turbine Blades and Electrical*
28 *Equipment*

29
30 The proposed battery storage systems would include electrical equipment. The certificate holder
31 describes that the proposed battery storage system sites would be fenced and would include
32 locked gates, similar to the previously approved substation and O&M building sites. Based on
33 the certificate holder’s representation, and to ensure unauthorized access by members of the
34 public and proximity to electrical equipment is minimized, the Department recommends
35 Council amend Public Health and Safety Standards for Wind Facilities Condition 2 (OPR-WR-01)
36 to also apply the requirement of fencing and locked gates to the proposed battery storage
37 system sites.⁶⁰

38
39 **Recommended Amended Public Health and Safety Standards for Wind Facilities**
40 **Condition 2 (OPR-WF-01):** During operation, the certificate holder shall ensure each
41 facility substation and battery storage system site is enclosed with appropriate fencing
42 and locked gates to protect the public from electrical hazards.

⁶⁰ WRWAMD2. Request for Amendment 2. Section 6.1.11. 2018-09-17.

1 [Final Order on ASC, Public Health and Safety Standards for Wind Facilities Condition;
2 Amended in Final Order on AMD2

3
4 Subject to compliance with the recommended amended condition, the Department
5 recommends the Council find that the certificate holder can design, construct and operate the
6 facility, with proposed changes, to exclude members of the public from the close proximity to
7 the electrical equipment.

8
9 **Conclusions of Law**

10
11 Based on the foregoing findings of fact and conclusions, and subject to compliance with the
12 recommended amended condition, the Department recommends that the Council find that the
13 facility, with proposed changes, would continue to satisfy the requirements of the Public Health
14 and Safety Standards for Wind Facilities.

15
16 **III.P.2. Cumulative Effects Standard for Wind Energy Facilities [OAR 345-024-0015]**

17
18 *To issue a site certificate for a proposed wind energy facility, the Council must find that the*
19 *applicant can design and construct the facility to reduce cumulative adverse environmental*
20 *effects in the vicinity by practicable measures including, but not limited to, the following:*

- 21
22 (1) *Using existing roads to provide access to the facility site, or if new roads are needed,*
23 *minimizing the amount of land used for new roads and locating them to reduce*
24 *adverse environmental impacts.*
25 (2) *Using underground transmission lines and combining transmission routes.*
26 (3) *Connecting the facility to existing substations, or if new substations are needed,*
27 *minimizing the number of new substations.*
28 (4) *Designing the facility to reduce the risk of injury to raptors or other vulnerable*
29 *wildlife in areas near turbines or electrical equipment.*
30 (5) *Designing the components of the facility to minimize adverse visual features.*
31 (6) *Using the minimum lighting necessary for safety and security purposes and using*
32 *techniques to prevent casting glare from the site, except as otherwise required by the*
33 *Federal Aviation Administration or the Oregon Department of Aviation.*

34
35 **Findings of Fact**

36
37 This standard requires the use of practicable measures to reduce the cumulative adverse
38 environmental effects by practicable measures.

39
40 *Access Roads*

41
42 OAR 345-024-0015(1) encourages the use of existing roads for facility site access, minimizing
43 the amount of land used for new roads, and locating new roads in such a manner that reduces
44 adverse environmental impacts. The proposed battery storage systems would not result in new

1 permanent or temporary access roads. Previously-approved access roads that would be
2 constructed to serve the overall facility, including the proposed battery storage systems, would
3 be sited along farm field edges to limit overall impacts to soils, habitat and agricultural
4 practices.

5
6 Soil Protection Conditions 1 (CON-SP-01) and 2 (CON-SP-02) require that, during construction,
7 the certificate holder implement erosion and sediment control measures outlined in the NPDES
8 1200-C permit and ESCP to reduce adverse environmental impacts from facility roads. Because
9 the proposed battery storage systems would not result in new permanent or temporary access
10 roads, the Department recommends the Council continue to find that the certificate holder
11 demonstrates that it would use existing roads where practicable to provide access to the site of
12 the facility, with proposed changes, and where previously approved new roads would be
13 utilized, they would be located to reduce adverse environmental impacts and constructed in a
14 manner that minimizes the amount of land used.

15
16 *Transmission Lines and Substations*

17
18 As described in RFA2, interconnection facilities for the proposed battery storage systems would
19 include a control house, protective devices, and power transformers, all of which would be
20 located within previously approved micro-siting area. The proposed battery storage systems
21 would not require any new transmission lines or substations. Therefore, the Department
22 recommends Council continue to find, based on the fact that no new transmission lines or
23 substations are proposed in the amendment request, that the design of the facility, with
24 proposed changes, would minimize cumulative adverse environmental effects.

25
26 *Wildlife Protection*

27
28 The proposed battery storage systems would be located adjacent to previously approved
29 facility substation and O&M building sites, within Category 6 (developed – dryland wheat)
30 habitat. Additionally, the certificate holder explains that the proposed battery storage systems
31 would be located toward the center of the site boundary and enclosed in storage containers, so
32 the electrical equipment would not be likely to pose a risk on raptors and sensitive wildlife.

33
34 The Department recommends the Council find that the certificate holder has demonstrated
35 that it can reduce cumulative adverse environmental effects in the vicinity by designing the
36 facility, with proposed changes, to reduce the risk of injury to raptors or other vulnerable
37 wildlife in areas near turbines or electrical equipment

38
39 *Visual Features*

40
41 RFA2 describes the proposed battery storage building enclosure footprint as approximately 80
42 feet in length by 100 feet in width (20 MW) and 190 feet in length and 100 in width (30 MW)
43 and approximately 20 feet in height, located in the center of the site boundary. The cumulative
44 visual impacts from the proposed battery storage system sites would be minimal.

1 Recommended Amended Scenic Resources Conditions 2 (GEN-SR-02) addresses finishing facility
2 components, including the battery storage containers, in neutral colors consistent with the
3 surrounding landscape as well as limiting vegetative clearing and facility signage, and would
4 further reduce visual impacts of the proposed battery storage systems.

5
6 The Department recommends the Council find that the certificate holder has demonstrated
7 that it can reduce cumulative adverse environmental effects in the vicinity by designing the
8 components of the facility, with proposed changes, to minimize adverse visual features

9
10 *Lighting*

11
12 Other than lighting on structures subject to the requirements of the Federal Aviation
13 Administration or the Oregon Department of Aviation site certificate, the recommended
14 amended Scenic Resources Condition 1 (GEN-SR-01) would reduce the visual impacts associated
15 with lighting facility structures, which would include the proposed battery storage systems.

16
17 **Conclusions of Law**

18
19 Based on the foregoing findings of fact and conclusions, and subject to compliance with the site
20 certificate conditions, the Department recommends Council find that the facility, with proposed
21 changes, would continue to comply with the Council's Cumulative Effects Standards for Wind
22 Energy Facilities.

23
24 **III.P.3. Siting Standards for Transmission Lines: OAR 345-024-0090**

25
26 *To issue a site certificate for a facility that includes any transmission line under Council*
27 *jurisdiction, the Council must find that the applicant:*

- 28
29 (1) *Can design, construct and operate the proposed transmission line so that*
30 *alternating current electric fields do not exceed 9 kV per meter at one meter*
31 *above the ground surface in areas accessible to the public;*
32 (2) *Can design, construct and operate the proposed transmission line so that*
33 *induced currents resulting from the transmission line and related or*
34 *supporting facilities will be as low as reasonably achievable*

35 **Findings of Fact**

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

41
42 RFA2 does not propose changes to the previously approved 230 kV intraconnection
43 transmission line or its location, and therefore does not apply to the proposed changes

1 included in the amendment request. However, for the record, the Department recommends
2 Council find that RFA2 would not result in a significant adverse impact under OAR 345-024-
3 0090(1) and (2) that was not addressed in a previous Council order and incorporates reasoning
4 and analysis presented in its previous final orders for the facility.
5

6 The Council addressed the Siting Standards for Transmission Lines in section IV.Q of the *Final*
7 *Order on the ASC* and found the facility to be in compliance with the standard. In the *Final*
8 *Order on the ASC*, the Council found that the certificate holder could construct and operate the
9 transmission lines so that alternating current electric fields do not exceed 9 kV per meter at one
10 meter above the ground surface in areas accessible to the public. The Council further found
11 that the certificate holder could design, construct and operate the transmission lines so that
12 induced currents resulting from the transmission lines would be as low as reasonably
13 achievable.
14

15 Subsection (2) of the standard requires the Council to find that a certificate holder can design,
16 construct, and operate transmission lines so that induced currents will be as low as reasonably
17 achievable. The Council previously found that the facility would comply with this standard, as
18 the certificate holder would provide appropriate grounding of fences and metal-roofed
19 buildings in order to reduce the risk of induced current. The Council previously imposed Siting
20 Standard Condition 1 (CON-TL-01) requiring that the certificate holder design, construct and
21 operate the transmission line in accordance with the 2012 Edition National Electric Safety Code
22 standards to reduce risk of induced current; and implement reasonable measures to reduce
23 and manage potential human exposure to electromagnetic fields.
24

25 **Conclusion of Law**

26 For the reasons discussed above, and subject to compliance with the existing site certificate
27 conditions, the Department recommends that the Council find that the facility, with proposed
28 changes, would not result in a significant adverse impact under OAR 345-024-0090 that was not
29 addressed in a previous Council order and would continue to comply with the Council's Siting
30 Standards for Transmission Lines.
31

32 **III.Q. Other Applicable Regulatory Requirements Under Council Jurisdiction**

33
34 Under ORS 469.503(3) and under the Council's General Standard of Review (OAR 345-022-
35 0000), the Council must determine whether the facility, with proposed changes, complies with
36 "all other Oregon statutes and administrative rules...as applicable to the issuance of a site
37 certificate for the proposed facility." This section addresses the applicable Oregon statutes and
38 administrative rules that are not otherwise addressed in Council standards, including noise
39 control regulations, regulations for removal or fill of material affecting waters of the state, and
40 regulations for appropriating ground water.
41

1 III.Q.1. Noise Control Regulations: OAR 340-035-0035

2
3 *(1) Standards and Regulations:*

4 ***

5 *(b) New Noise Sources:*

6
7 *(B) New Sources Located on Previously Unused Site:*

8
9 *(i) No person owning or controlling a new industrial or commercial noise source*
10 *located on a previously unused industrial or commercial site shall cause or permit the*
11 *operation of that noise source if the noise levels generated or indirectly caused by*
12 *that noise source increase the ambient statistical noise levels, L10 or L50, by more*
13 *than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured*
14 *at an appropriate measurement point, as specified in subsection (3)(b) of this rule,*
15 *except as specified in subparagraph (1)(b)(B)(iii).*

16
17 *(ii) The ambient statistical noise level of a new industrial or commercial noise source*
18 *on a previously unused industrial or commercial site shall include all noises*
19 *generated or indirectly caused by or attributable to that source including all of its*
20 *related activities. Sources exempted from the requirements of section (1) of this rule,*
21 *which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be*
22 *excluded from this ambient measurement.*

23
24 **Findings of Fact**

25
26 The Department of Environmental Quality (DEQ) noise control regulations at OAR 340-035-0035
27 have been adopted by Council as the compliance requirements for EFSC-jurisdiction energy
28 facilities.

29
30 The analysis area for the Noise Control Regulation is the area within and extending 1-mile from
31 the site boundary.

32
33 The proposed battery storage systems would generate operational noise from the following
34 sources

- 35
36
 - Up to 56 heating, ventilation and air conditioning (HVAC) modules
 - 37 • Up to 28 power inverters
 - 38 • Up to 28 distribution transformers

39
40 The HVAC modules, power inverters, and distribution transformers would generate maximum
41 noise levels of 103, 92, and 72 dBA, respectively.⁶¹ Based upon maximum noise levels of
42 equipment associated with the proposed battery storage systems, the certificate holder

⁶¹ WRWAMD2Doc11. Complete Request for Amendment 2, Attachment 3. 2018-09-17.

1 conducted an updated acoustic modeling assessment using the Computer Aided Noise
2 Abatement (CadnaA), version 2018 MR1 software program to make predictions of peak noise
3 levels at noise-sensitive properties within the analysis area (RFA2 Attachment 3). The noise
4 modeling assessment included wind turbines, as proposed in RF3, substation transformers, and
5 noise sources associated with the proposed battery storage systems.⁶²

6
7 The noise modeling results show that the facility, with proposed changes, would not exceed the
8 maximum allowable decibel threshold of 50 dBA at any noise sensitive receptor included in the
9 analysis. The results also show that there are 19 noise sensitive receptors that would exceed
10 the 10 dBA threshold above ambient or assumed ambient noise (assumed ambient baseline is
11 26 dBA, per OAR 340-035-0035(1)(b)(B)(iii)(I)); however, as described in RFA2, these 19 noise
12 sensitive receptors are all “participating property owners,” meaning those landowners that
13 have signed a lease with Wheatridge and have indicated that they are willing to sign a noise
14 waiver, if necessary.⁶³ In accordance with existing site certificate condition Noise Control
15 Condition 2 (PRE-NC-01(d)), those noise waivers must be secured and provided to the
16 Department as a pre-construction requirement to demonstrate compliance with the noise
17 regulation.

18
19 Based on this assessment, the Department recommends Council finds that operational noise
20 levels from the proposed battery storage systems would not alter the certificate holders’ ability
21 to comply with OAR 340-035-0035 and preexisting conditions relating to noise control
22 regulations. The Department recommends that the Council find that the operation of the
23 facility, with proposed changes, subject to the existing site certificate conditions, would
24 continue to comply with the Noise Control Regulations in OAR 340-0035(1)(b)(B).

25 26 **Conclusions of Law**

27
28 Based on the foregoing findings, the Department recommends that the Council find that the
29 facility, with proposed changes, would continue to comply with the Noise Control Regulations
30 in OAR 340-035-0035(1)(b)(B).

31 32 **III.Q.2. Removal-Fill**

33
34 The Oregon Removal-Fill Law (ORS 196.795 through 196.990) and Department of State Lands
35 (DSL) regulations (OAR 141-085-0500 through 141-085-0785) require a removal-fill permit if 50
36 cubic yards or more of material is removed, filled, or altered within any “waters of the state.”⁶⁴

⁶² The wind turbine model, as proposed in RFA3, were utilized in the assessment and included noise reducing technology, “Low Noise Trailing Edge” blades, based on a facility layout of 165 turbines; this is fewer turbines than considered in the ASC. Finally, the noise modeling assessment also uses different noise levels for the previously approved substation transformers, based on changes in potential technology and associated sound emission levels.

⁶³ WRWAMD2Doc11 Complete Request for Amendment 2, Attachment 3. 2018-09-17.

⁶⁴ ORS 196.800(15) defines “Waters of this state.” The term includes wetlands and certain other waterbodies.

1 The Council, in consultation with DSL, must determine whether a removal-fill permit is needed
2 and if so, whether a removal-fill permit should be issued.

3
4 The analysis area for potential impacts to wetlands and other waters of the state, as defined in
5 the project order, is the area within the site boundary.

6
7 **Findings of Fact**

8
9 The proposed battery storage systems would be built adjacent to the previously-approved
10 facility substations, on EFU-zoned land utilized for dryland wheat cultivation. In RFA2, the
11 certificate holder describes that the proposed battery storage systems would not result in
12 temporary or permanent impacts to waters of the state, and confirms that a removal-fill permit
13 would not be needed.

14
15 During the review of the ASC, DSL reviewed the wetland delineation report and provided a
16 concurrence letter, in which DSL agreed with the wetland delineation and classifications. RFA2
17 does not request any change to the facility site boundary. Therefore, the Department
18 recommends the Council find that the facility, with proposed changes, would continue to satisfy
19 the requirements of the removal-fill law and that the certificate holder is not required to obtain
20 a removal-fill permit.

21
22 **Conclusions of Law**

23
24 Based on the foregoing findings of fact and conclusions, the Department recommends that the
25 Council find that a removal-fill permit is not needed for the facility, with proposed changes.

26
27 **III.Q.3. Water Rights**

28
29 Under ORS Chapters 537 and 540 and OAR Chapter 690, the Oregon Water Resources
30 Department (OWRD) administers water rights for appropriation and use of the water resources
31 of the state. Under OAR 345-022-0000(1)(b), the Council must determine whether the facility
32 would comply with these statutes and administrative rules. OAR 345-021-0010(1)(o)(F) requires
33 that if a facility needs a groundwater permit, surface water permit, or water right transfer, that
34 a decision on authorizing such a permit rests with the Council.

35
36 **Findings of Fact**

37
38 OAR 690 establishes the procedures and standards which shall be applied by the OWRD in the
39 evaluation of applications for a permit to appropriate surface water, ground water, to construct
40 a reservoir and store water, to use reserved water, or to use water stored in a reservoir.

41
42 In RFA2, the certificate holder is not requesting a groundwater permit, a surface water permit,
43 or a water rights transfer during the construction and operation of the battery storage system
44 components. The certificate holder confirms that construction-related water, as described in

1 ASC Exhibit O, would be obtained from municipal sources near the facility, including Hermiston
2 Public Works, Stanfield Public Works, Boardman Public Works, or Port of Morrow. In RFA2, the
3 certificate holder states that the Port of Morrow alone has stated that it can provide up to 6.5
4 million gallons of water per month, more than the certificate holder anticipates needing during
5 a “worst case” facility demand for water. Based on the source of construction water, as
6 described by the certificate holder, the facility, with proposed changes, would not need a
7 groundwater permit, surface water permit, or water right transfer.

8
9 Water used during proposed battery storage system operations would result from filling and
10 use of fire water tanks associated with the gas pressured deluge fire suppression systems. The
11 fire suppression system fire water tanks would obtain water from previously evaluated permit-
12 exempt wells to be located at the O&M buildings. Council previously imposed Public Services
13 Condition 2 (OPR-PS-02) requiring that, pursuant to ORS 537.765, the certificate holder
14 demonstrate that water withdrawal would not exceed 5,000-gallons per day. Water used for
15 emergency fire-fighting is exempt from the 5,000-gallon limit pursuant to ORS 537.141(a).
16 Therefore, use of water during emergency operation of the fire suppression system would not
17 be limited to 5,000-gallons per day. Therefore, the Department recommends Council find that
18 the facility, with proposed changes, would continue to satisfy the requirements of the Ground
19 Water Act of 1955 or Water Resources Department rules.

20

21 **Conclusions of Law**

22

23 Based on the foregoing findings of fact, the Department recommends that the Council conclude
24 that the facility, with proposed changes, does not need a groundwater permit, surface water
25 permit, or water right transfer.

26

1 **IV. PROPOSED CONCLUSIONS AND ORDER**

2
3 Based on the recommended findings and conclusions included in this order, the Department
4 recommends that Council make the following findings:

- 5
6 1. The proposed facility modifications included in Request for Amendment 2 of the
7 Wheatridge Wind Energy Facility site certificate complies with the requirements of
8 the Oregon Energy Facility Siting Statutes, ORS 469.300 to 469.520.
9
10 2. The proposed facility modifications included in Request for Amendment 2 of the
11 Wheatridge Wind Energy Facility site certificate complies with the standards
12 adopted by the Council pursuant to ORS 469.501.
13
14 3. The proposed facility modifications included in Request for Amendment 2 of the
15 Wheatridge Wind Energy Facility site certificate complies with all other Oregon
16 statutes and administrative rules identified in the project order as applicable to the
17 issuance of an amended site certificate for the facility.
18

19 Accordingly, the Department recommends that the Council find that the proposed facility
20 modifications included in Request for Amendment 2 of the Wheatridge Wind Energy Facility
21 site certificate complies with the General Standard of Review (OAR 345-022-0000). The
22 Department recommends that the Council find, based on a preponderance of the evidence on
23 the record, that the site certificate may be amended as requested.
24
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43
44

1 **Proposed Order**

2

3 The Department recommends that the Council approve Amendment 2 of the Wheatridge Wind
4 Energy Facility site certificate,

5

Issued this 21th day of September, 2018

The OREGON DEPARTMENT OF ENERGY

By: 

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

6 **Attachments:**

7 Attachment A: Draft Amended Site Certificate (Red-line version)

8 Attachment B: Reviewing Agency Comments on preliminary Request for Amendment 2

9 Attachment C: [Reserved for Draft Proposed Order Comments/Index]

10 Attachment D: Draft Habitat Mitigation Plan

11 Attachment E: Draft Revegetation Plan

12 Attachment F: Wildlife Monitoring and Management Plan

13

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1 **Notice of the Right to Appeal**

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3 [Text to be added to Final Order]

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Attachment A: Draft Amended Site Certificate (Red-line version)

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

**~~First~~ Second Amended
Site Certificate for the
Wheatridge Wind Energy Facility**

ISSUE DATE

July 2017

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7.0	Execution	48

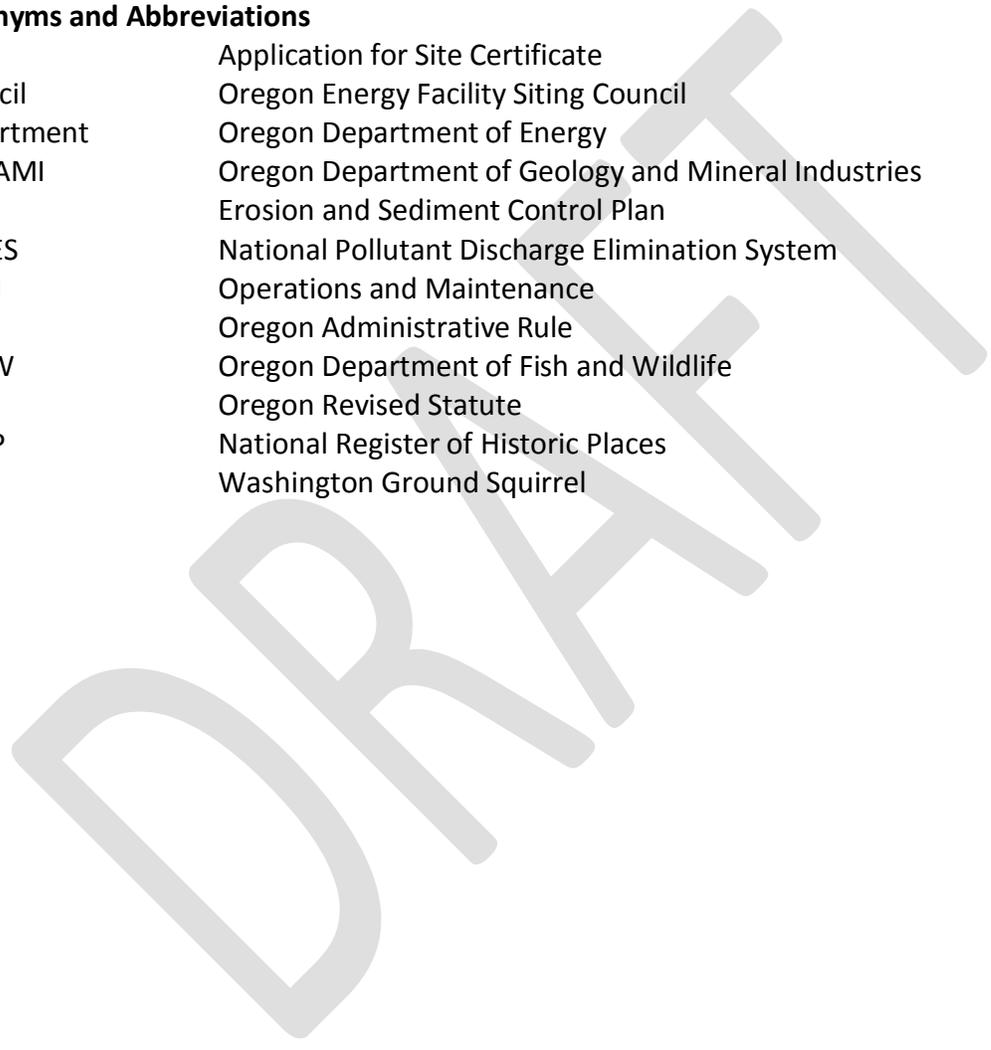
WHEATRIDGE WIND ENERGY FACILITY SITE CERTIFICATE

Attachments

Attachment A Facility Site Boundary Map

Acronyms and Abbreviations

ASC	Application for Site Certificate
Council	Oregon Energy Facility Siting Council
Department	Oregon Department of Energy
DOGAMI	Oregon Department of Geology and Mineral Industries
ESCP	Erosion and Sediment Control Plan
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
OAR	Oregon Administrative Rule
ODFW	Oregon Department of Fish and Wildlife
ORS	Oregon Revised Statute
NRHP	National Register of Historic Places
WGS	Washington Ground Squirrel



1.0 Introduction and Site Certification

This site certificate is a binding agreement between the State of Oregon (State), acting through the Energy Facility Siting Council (Council), and Wheatridge Wind Energy, LLC (certificate holder), which is a wholly-owned subsidiary of NextEra Energy Resources, LLC (NextEra or parent company). As authorized under Oregon Revised Statute (ORS) Chapter 469, the Council issues this site certificate authorizing certificate holder to construct, operate and retire the Wheatridge Wind Energy Facility (facility) at the below described site within Morrow and Umatilla counties, subject to the conditions set forth herein.

Both the State and certificate holder must abide by local ordinances, state law and the rules of the Council in effect on the date this site certificate is executed. However, 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)).

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 Wheatridge Wind Energy Facility issued on April 28, 2017 (hereafter, Final Order on the Application); ~~and (b) the Final Order on Request for Transfer issued on July 27, 2017;~~ and Final Order on Request for Amendment 1 issued on TBD. In interpreting this site certificate, any ambiguity will be clarified by reference to the following, in order of priority: (1) Final Order on Request for Amendment 2; (2) this First Amended Site Certificate Final Order on Request for Amendment 1; ~~(3) the Final Order on the Application, and (4) the record of the proceedings that led to the Final Order on the Application~~ to the above referenced orders. 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)). This site certificate does not address, and is not binding with respect to, matters that are not included in and governed by this site certificate, and such matters include, but are not limited to: employee health and safety; building code compliance; wage and hour or other labor regulations; local government fees and charges; 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 (ORS 469.503(3)).

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

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. In addition, each state agency or local government agency that issues a permit, license or other approval for this facility shall continue to exercise enforcement authority over such permit, license or other approval (ORS 469.401(3)). For those permits, licenses, or other approvals 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)).

The certificate holder must construct, operate and retire the facility in accordance with all applicable rules as provided for in Oregon Administrative Rule (OAR) Chapter 345, Division 26. 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).

The obligation of the certificate holder to report information to the Department or the Council under the conditions listed in this site certificate 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.

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.

The duration of this site certificate shall be the life of the facility, subject to termination pursuant to OAR 345-027-0010 or the rules in effect on the date that termination is sought, or revocation under ORS 469.440 and OAR 345-029-0100 or the statutes and rules in effect on the date that revocation is ordered. The Council shall not change the conditions of this site certificate except as provided for in OAR Chapter 345, Division 27.

2.0 Facility Location

The energy facility and its related and supporting facilities are located within Morrow and Umatilla counties. The site boundary, as defined in OAR 345-001-0010, encompasses approximately 13,097 acres of private land and includes the perimeter of the energy facility site, its related and supporting facilities, all temporary laydown and staging areas and all transmission corridors and micro-siting corridors proposed by the certificate holder, as approved by the Council.

The energy facility is divided into two groups, Wheatridge West and Wheatridge East. Wheatridge West is located entirely within Morrow County, bisected by Oregon Highway 207, approximately 5 miles northeast of Lexington and approximately 7 miles northwest of Heppner. Wheatridge East is located approximately 16 miles northeast of Heppner and includes land in both Morrow and Umatilla counties. Wheatridge West and Wheatridge East are connected via a 230 kV transmission line or “intraconnection” transmission line (see facility site boundary map provided in Attachment A).

2.1 Site Boundary

The site boundary encompasses a total of 13,097 acres of privately owned land: 2,956 acres in Wheatridge East, 8,515 acres in Wheatridge West, and 1,626 acres in the intraconnection transmission line corridor. Table 1 identifies the Public Land Survey System sections in which the site boundary is located.

Table 1. Location of Site Boundary by Township, Range and Section

Township	Range	Section(s)
Wheatridge East		
1N	28E	4, 5, 8, 9, 16, 17, 21
2N	28E	2, 3, 9, 10, 11, 14, 15, 16, 21, 22, 27, 28, 29, 32, 33
Wheatridge West		
2N	25E	25, 26, 27, 34, 35, 36
1N	25E	1, 2, 11, 12, 13, 14, 15, 22, 23, 24
1N	26E	4, 6, 7, 8, 9, 15, 16, 17, 18, 19, 20, 21, 22, 28, 29, 30, 32, 33
1S	25E	1, 12
1S	26E	2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 34, 35, 36
2S	26E	1, 12
Intraconnection Corridor		
1S	27E	7, 12, 13, 14, 15, 16, 17, 18, 21, 22, 23, 24
1S	28E	3, 4, 7, 8, 9, 16, 17, 18
1N	28E	28, 33

For this facility, the certificate holder requested that the site boundary represent the “micro-siting corridor” for the placement of facility components to allow some flexibility in specific component locations and design in response to site-specific conditions and engineering requirements to be determined prior to construction. The Council permits final siting flexibility within a micro-siting corridor when the certificate holder demonstrates that requirements of all applicable standards have been satisfied by adequately evaluating the entire corridor and location of facility components

anywhere within the corridor.

2.2 Micrositing Corridor

The certificate holder requested flexibility to locate components of the energy facility and its related and supporting facilities within a micrositing corridor to allow adjustment of the specific location of components, while establishing outer boundaries of potential construction for purposes of evaluating potential impacts. As described above, for this facility, the site boundary represents the micrositing corridor, and is a minimum of approximately 660 feet in width around turbines, and wider in some locations. The site boundary width around site access roads and electrical collection lines (collector lines) is narrower, between 200 feet and 500 feet in width. The micrositing corridor is wider for the area surrounding the substations, meteorological towers (met towers), the operation and maintenance (O&M) buildings, and construction yards.

2.3 Intraconnection Transmission Line Corridor

The certificate holder obtained approval of four routing options for the 230 kV intraconnection transmission line that interconnects Wheatridge West and Wheatridge East for the transmission of generated power. The intraconnection transmission line corridor is approximately 1,000-feet in width and ranges in length from 24.5 to 31.5 miles, based upon the four approved transmission line route options.

The four approved transmission line route options range in length from 24.5 to 31.5 miles and would follow the same alignment for approximately 18 miles from the Wheatridge East substation to the crossing at Sand Hollow Road. For the remainder of the route, Options 1 and 3 traverse the same alignment, with Option 1 extending 7 miles longer than Option 3; Option 2 and 4 traverse the same alignment, with Option 2 extending 3.5 miles longer than Option 4. Option 1 and 2 differ for an approximately 4 mile segment located between Sand Hollow Road and the Wheatridge West substation (primary), with Option 2 traversing from Sand Hollow Road through the alternative (2b) Wheatridge West substation to the primary (1) Wheatridge West substation. The four approved routing options and associated transmission line corridors are presented in Attachment A of the site certificate (and are clearly delineated in figures provided in ASC Exhibit C).

3.0 Facility Description

3.1 Energy Facility

The energy facility includes individual wind turbines, each consisting of a nacelle, a three-bladed rotor, turbine tower and foundation. The nacelle houses the equipment such as the gearbox, generator, brakes, and control systems for the turbine. The total height of the turbine tower and blades (tip-height) ranges between 431 and 476 feet, depending on the turbine model selected. The total generating capacity of the facility will not exceed 500 MW, and the total number of turbines will not exceed 292.

The base of each tower foundation requires a cleared area (typically a gravel pad) up to 80 feet in diameter. The turbines are grouped in linear “strings” within the micrositing corridor and interconnect with a 34.5 kV electrical collection system (described below). Most turbine types include a generator step-up (GSU) transformer installed at the base of the tower that would be used to increase the voltage of the turbine to that of the electrical collection system. Table 2 shows the range of turbine specifications approved for use at the facility site.

Table 2: Turbine Specifications used for Impact Evaluations

Specification	Maximum
Turbine Generating Capacity (Individual)	2.5 MW
Blade Length	197 ft.
Hub Height	278 ft.
Rotor Diameter (Rotor Swept Height)	393 ft.
Total Height (tower height plus blade length)	476 ft.

3.2 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, and Final Order on Request for Transfer:~~

- Electrical collection system (includes up to 88 miles of mostly underground 34.5 kV collector lines)
- Up to three collector substations
- Up to 32 miles of up to two overhead, parallel 230 kV transmission lines
- Up to 12 permanent meteorological (met) towers
- Communication and Supervisory Control and Data Acquisition (SCADA) System
- Up to two operations and maintenance (O&M) buildings
- Up to 73 miles of new or improved access roads
- Additional temporary construction areas (including staging areas and one or more temporary concrete batch plant areas)
- Battery Storage Systems and Interconnection Facilities

Electrical Collection System

The electrical collection system includes up to 88 miles of mostly underground 34.5 kV collector lines. Electrical connections are located underground or in enclosed junction boxes between the turbine and the pad-mounted GSU transformer. From the GSU transformer to the collector lines the connections are installed along and between the turbine strings to collect power generated by each wind turbine and to route the power to one of three collector substations, which step up the power from 34.5 kV to 230 kV.

The collector lines are underground, to the extent practicable, in trenches approximately three-feet wide and not less than two- to three-feet deep, generally alongside access roads, to minimize ground disturbance. Where land use and soil conditions make a buried depth of three-feet infeasible, collector lines may be buried at a depth of less than three feet, while still adhering to National Electrical Safety Code (NESC) standards.

Collector lines may be run overhead in situations where a buried cable would be infeasible or would create unnecessary impacts, such as at stream or canyon crossings. Overhead collector lines are supported by a wooden or steel pole structure. Each support pole has been buried approximately 6 feet in the ground and extends to a height of approximately 60 feet above ground, spaced 100 to 200 feet apart. Overhead collector lines are only anticipated in Wheatridge West. The facility includes up to 10.8 miles of overhead collector lines; however, the specific locations of overhead collector lines will not be known until site geotechnical work has been completed during pre-construction activities.

No more than 88 miles of collector lines would be needed for the facility.

Collector Substations

The facility includes up to two substations within Wheatridge West and one substation within Wheatridge East. The proposed substation locations are presented in ASC Exhibit C. However, Wheatridge has requested, and Council grants, the ability to microsite the final location and number (up to three) of substations within the microsite corridor.

Prior to construction, substation sites will be cleared and graded, with a bed of crushed rock applied for a durable surface. Each collector substation is located on a two- to five-acre site, enclosed by a locked eight-foot tall wire mesh fence. Each substation consists of transformers, transmission line termination structures, a bus bar, circuit breakers and fuses, control systems, meters, and other equipment.

230 kV Intraconnection Transmission Line

The facility includes one or two parallel overhead 230 kV intraconnection transmission lines supported by H-frame or monopole structures constructed of either wood or steel that extends 24.5 to 31.5 miles in length, depending on the route option selected. The 230 kV overhead transmission line structures are approximately 60 to 150 feet tall and spaced approximately 400 to 800 feet apart depending on the terrain. Each transmission line route requires acquisition of an approximately 150-

foot wide right-of-way from private landowners.

The four approved transmission line routing options and associated corridors for the intraconnection transmission line are described below (see Attachment A figure and figures contained in ASC Exhibit C):

- Option 1: Two Project Substations to Longhorn
 - This option runs from Substation 3 in Wheatridge East to Substation 1 in Wheatridge West and then to the proposed UEC/CB Strawberry substation, just to the west of Wheatridge West, for interconnection to a UEC or UEC/CB operated Gen-tie Line to the proposed BPA Longhorn substation. The intraconnection line route is 31.5 miles (50.5 kilometers) in length.
- Option 2: Three Project Substations to Longhorn (Final facility design with battery storage system would not include this routing option)
 - This option runs from Substation 3 in Wheatridge East to Substation 2b in Wheatridge West, then on to Substation 2a in Wheatridge West, and then to the proposed UEC/CB Strawberry substation, just west of Wheatridge West, for interconnection to a UEC or UEC/CB operated Gen-tie Line to the proposed BPA Longhorn substation. The intraconnection line route is 31.3 miles (50.3 kilometers) in length.
- Option 3: Two Project Substations to Stanfield
 - This option runs from Substation 1 in Wheatridge West to Substation 3 in Wheatridge East for interconnection to a UEC operated Gen-tie Line to the proposed BPA Stanfield substation. The intraconnection line route is 24.5 miles (39.4 kilometers) in length.
- Option 4: Three Project Substations to Stanfield (Final facility design with battery storage system would not include this routing option)
 - This option runs from Substation 2a in Wheatridge West to Substation 2b in Wheatridge West, and then to Substation 3 in Wheatridge East for interconnection to a UEC operated Gen-tie Line to the proposed BPA Stanfield substation. The intraconnection line route is 27.8 miles (44.7 kilometers) in length.

Meteorological Towers

The facility includes up to 12 permanent met towers. Up to five met towers are sited in Wheatridge East and up to seven met towers are sited in Wheatridge West for the collection of wind speed and direction data. Each met tower has a free-standing, non-guyed design and is approximately 328 feet (100 meters) in height. Installation of permanent met towers results in approximately 98-foot (30-meters) in diameter of temporary land disturbance per tower and approximately 32-foot (10-meter) in diameter of permanent land disturbance per tower. Permanent met towers are fitted with safety lighting and paint as required by the Federal Aviation Administration (FAA).

Communication and SCADA System

The facility includes a communication system, consisting of fiber optic and copper communication lines that connect the turbines, met towers, and substations to the O&M buildings. A SCADA system is installed in the O&M buildings to enable remote operation to collect operating data for each wind turbine, and to archive wind and performance data. SCADA system wires are collocated with the collector lines both in the underground trenches and overhead, if necessary.

O&M Buildings

The facility includes up to two O&M buildings, each located on up to 1.1 acres, one within Wheatridge East and one within Wheatridge West. Each O&M building consists of a single-story, prefabricated structure approximately 6,000 to 9,000 square feet in size, and includes an office, break room, kitchen, lavatory with shower, utility room, covered vehicle parking, storage for maintenance supplies and equipment, and SCADA system. A permanent, fenced, graveled parking and storage area for employees, visitors, and equipment is located adjacent to each O&M building. Each building is served by an on-site well and septic system and power supplied by a local service provider using overhead and/or underground lines.

Access Roads

Primary access to the facility site is from Interstate 84 (I-84) via Bombing Range Road or Oregon Route 207 (OR-207). The certificate holder completed improvements to existing public roads to accommodate construction activities, including flattening crests or filling dips, widening sharp corners, or adding road base material; the certificate holder is required to consult with the appropriate county road master on specific improvements prior to construction. The certificate holder committed to completing upgrade to existing roads according to applicable state and county road standards and after consultation with Morrow and Umatilla County staff. The certificate holder is required to implement a road use agreement with each county to specify requirements, including that all existing public roads used to access the site would be left in as good or better condition than that which existed prior to the start of construction.

Access to the turbines, construction yards, substations, and O&M buildings is from a network of private access roads constructed or improved by the certificate holder. The certificate holder will grade and gravel all newly constructed and improved site access roads to meet load requirements for heavy construction equipment, as necessary. Following turbine construction, the certificate holder will narrow the site access roads for use during operations and maintenance. The additional disturbed width required during construction will be restored following the completion of construction by removing gravel surfacing, restoring appropriate contours with erosion and stormwater control best management practices (BMPs), decompacting as needed, and revegetating the area appropriately.

In the maximum impact scenario, the facility will require up to 73 miles of access roads.

Temporary access roads were needed for the construction of the intraconnection transmission line(s). The intraconnection transmission line(s) can be constructed and maintained using only large trucks

rather than heavy construction cranes, and construction will occur during the dry time of year when the ground surface is hard enough to support those vehicles. Therefore, the interconnection transmission lines do not include permanent access roads. The total mileage of the temporary access roads needed for constructing the intraconnection transmission line(s) depends on the intraconnection line route option chosen. The shortest route would require approximately 22.8 miles of access roads, while the longest would require approximately 25.5 miles.

Additional Construction Yards

The facility includes up to four temporary construction yards located within the site boundary to facilitate the delivery and assembly of material and equipment. The construction yards are used for temporary storage of diesel and gasoline fuels, which are located in an above-ground 1,000-gallon diesel and 500-gallon gasoline tank, within designated secondary containments areas.

Each construction yard occupies between 15 and 20 acres, and was graded and gravel surfaced. The certificate holder is required to restore all construction yards to pre-construction conditions unless an agreement with the landowner leads to some or all of the construction yard being retained after construction.

In addition, the certificate holder may utilize one or more temporary concrete batch plant areas, located within the construction yard area. The temporary concrete batch plants are permitted and operated by the selected contractor.

Battery Storage Systems and Interconnection Facilities

The battery storage systems include the following components:

- Series of modular containers or a building per system (approximately 80 feet long, 100 feet wide and 15-20 feet tall for the 20 MW system); approximately 190 feet long, 100 feet wide and 15-20 feet tall for the 30 MW system)
 - Each system would contain lithium-ion batteries within battery modules anchored racks within containers or building.
 - Approximately eighteen 2.7 mega-voltampere (MVA) inverters with associated step up transformers with a combined footprint approximately 8 feet by 4 feet.
 - Each system would be equipped with a gas pressured deluge fire suppression system, independent smoke detection system, and external fire water tank
 - Each system would include a cooling system comprised of a bank of four power conditioning system fan units with motor
- Control house, approximately 16 feet by 11 feet, with an external heating, ventilation and air conditioning unit (HVAC)
- Protective device; skid-mounted power transformer; and bi-directional inverter

Battery and inverter equipment would be electrically connected via a combination of aboveground cable trays, underground conduit, and covered cable trenches. Site surfacing would remain primarily gravel. The battery storage systems would interconnect with facility substations via feeder lines.

4.0 Site Certificate Conditions

4.1 Condition Format

The conditions in Sections 4.2 through 4.7 of this Site Certificate are organized and coded to indicate the phase of implementation, the standard the condition is required to satisfy, and an identification number (1, 2, 3, etc.)¹. The table below presents a “key” for phase of implementation:

Key	Type of Conditions/Phase of Implementation
GEN	General Conditions: Design, Construction and Operation
PRE	Pre-Construction Conditions
CON	Construction Conditions
PRO	Pre-Operational Conditions
OPR	Operational Conditions
RET	Retirement Conditions

The standards are presented using an acronym; for example, the General Standard of Review is represented in the condition numbering as “GS”; the Soil Protection standard is represented in the condition numbering as “SP” and so forth.

For example, the coding of Condition GEN-GS-01 represents that the condition is a general condition (GEN) to be implemented during design, construction and operation of the facility, is required to satisfy the Council’s General Standard of Review, and is condition number 1.

¹ The identification number is not representative of an order that conditions must be implemented; it is intended only to represent a numerical value for identifying the condition.

4.2 General Conditions (GEN): Design, Construction and Operations

Condition Number	General (GEN) Conditions
STANDARD: GENERAL STANDARD OF REVIEW (GS) [OAR 345-022-0000]	
GEN-GS-01	<p>The certificate holder shall begin construction of the facility by May 24, 2020 <u>within three years after the effective date of the site certificate. Under OAR 345-015-0085(9), the site certificate is effective upon execution by the Council chair and the applicant. On or before May 24, 2020, the certificate holder shall provide written notification to the Department that it has met the construction commencement deadline. Construction is defined in OAR 345-001-0010.</u></p> <p>[Final Order on ASC, General Standard Condition 1; Amended in Final Order on AMD2 <u>General Standard Condition 1</u>]</p> <p><u>[Mandatory Condition OAR 345-025-0006(4)]</u></p>
GEN-GS-02	<p>The certificate holder shall complete construction of the facility by May 24, 2023 <u>within six years after the effective date of the site certificate. The certificate holder shall promptly notify the Department of the date of completion of construction.</u></p> <p>[Final Order on ASC, General Standard Condition 2; Amended in Final Order on AMD2]</p> <p><u>[Mandatory Condition OAR 345-025-0006(4)]</u></p>
GEN-GS-03	<p>The certificate holder shall design, construct, operate, and retire the facility:</p> <ol style="list-style-type: none"> Substantially as described in the site certificate; 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 In compliance with all applicable permit requirements of other state agencies. <p>[Final Order on ASC, Mandatory Condition 2]</p> <p><u>[OAR 345-027-0020-025-0006(3)]</u></p>
GEN-GS-04	<p>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:</p> <p><u>a. theThe 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 a transmission line or pipeline occurs during the certificate holder’s negotiations to acquire construction rights on another part of the site; or</u></p> <p><u>a-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.</u></p> <p>[Final Order on ASC, Mandatory Condition 3]</p> <p><u>[OAR 345-025-0006-027-0020(5)]</u></p>
GEN-GS-05	<p>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.</p> <p>[Final Order on ASC, Mandatory Condition 4]</p>

	[OAR 345-027-0020(6)]
GEN-GS-06	<p>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.</p> <p>[Final Order on ASC, Mandatory Condition 5]</p> <p>[OAR 345-025-0006 027-0020(10)]</p>

GEN-GS-07	<p>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.</p> <p>[Final Order on ASC, Mandatory Condition 6] [OAR 345-025-0006 027-0020(11)]</p>
GEN-GS-08	<p>The certificate holder shall design, engineer and construct the facility to avoid dangers to human safety 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, <u>ground failure</u>, landslide, liquefaction <u>triggering and consequences (including flow failure, settlement buoyancy, and lateral spreading)</u>, <u>cyclic softening of clays and silts, fault rupture, directivity effects and soil-structure interaction</u>. For coastal sites, this also includes <u>tsunami hazards and seismically-induced coastal inundation, fault displacement and</u> subsidence.</p> <p>[Final Order on ASC, Mandatory Condition 7] [OAR 345-0275-00206(12)]</p>
GEN-GS-09	<p>The certificate holder shall notify the departmentDepartment, 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 and to propose mitigation actions.</p> <p>[Final Order on ASC, Mandatory Condition 8] [OAR 345-025-0006 027-0020(13)]</p>
GEN-GS-10	<p>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. <u>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.</u></p> <p>[Final Order on ASC, Mandatory Condition 9] [OAR 345-025-0006 027-0020(14)]</p>
GEN-GS-11	<p>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.</p> <p>[Final Order on ASC, Mandatory Condition 10] [OAR 345-025-0006 027-0020(15)]</p>
GEN-GS-12	<p>The Council shall specify an approved corridor in the site certificate and shall allow the certificate holder to construct the pipeline or transmission line anywhere within the corridor, subject to the conditions of the site certificate. If the applicant has analyzed more than one corridor in its application for a site certificate, the Council may, subject to the Council’s standards, approve more than one corridor.</p> <p><i>[The transmission line corridors approved by EFSC pursuant to this condition is described in Section 2.3 of the site certificate, and presented in the facility site map (see Attachment A of the site certificate).</i></p>

[Final Order on ASC, Site Specific Condition 1] [OAR 345-027-0023(5)]

STANDARD: ORGANIZATIONAL EXPERTISE (OE) [OAR 345-022-0010]

GEN-OE-01	Any matter of non-compliance under the site certificate is the responsibility of the certificate holder. Any notice of violation issued under the site certificate will be issued to the certificate holder. Any civil penalties under the site certificate will be levied on the certificate holder. [Final Order on ASC, Organizational Expertise Condition 5]
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GEN-OE-02	In addition to the requirements of OAR 345-026-0170, within 72 hours after discovery of incidents or circumstances that violate the terms or conditions of the site certificate, the certificate holder must report the conditions or circumstances to the department. [Final Order on ASC, Organizational Expertise Condition 6]
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GEN-OE-03	During facility construction and operation, the certificate holder shall report to the Department, within 7 days, any change in the corporate structure of the parent company, NextEra Energy Resources, LLC. The certificate holder shall report promptly to the Department any change in its access to the resources, expertise, and personnel of NextEra Energy Resources, LLC. [Amendment #1 , Organizational Expertise Condition 9]
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GEN-OE-04	<p><u>The certificate holder shall:</u></p> <p>a. <u>Prior to and during construction, as applicable, provide evidence to the Department that a contractual agreement has been obtained for transport and disposal of battery and battery waste by a licensed hauler and requires the third-party to comply with all applicable laws and regulations, including applicable provisions of 49 CFR 173.185.</u></p> <p>b. <u>Prior to transporting and disposing of battery and battery waste during facility operations, provide evidence to the Department that a contractual agreement has been obtained for transport and disposal of battery and battery waste by a licensed hauler and requires the third-party to comply with all applicable laws and regulations, including applicable provisions of 49 CFR 173.185.</u></p> <p>[Final Order on AMD2, Organizational Expertise Condition 10]</p>
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STANDARD: STRUCTURAL (SS) [OAR 345-022-0020]

GEN-SS-01	The certificate holder shall design, engineer, and construct the facility in accordance with the current versions of the latest International Building Code, Oregon Structural Specialty Code, and building codes as adopted by the State of Oregon at the time of construction. [Final Order on ASC, Structural Standard Condition 2]
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STANDARD: LAND USE (LU) [OAR 345-022-0030]

GEN-LU-01	<p>The certificate holder shall design the facility to comply with the following wind turbine setback distances in Morrow County:</p> <ul style="list-style-type: none">a. Wind turbines shall be setback from the property line of any abutting property of any non-participant property owners a minimum of 110 percent of maximum blade tip height of the wind turbine tower.b. Wind turbines shall be setback 100 feet from all property boundaries, including participant property boundaries within the site boundary, if practicable.c. Wind turbine foundations shall not be located on any property boundary, including participant property boundaries within the site boundary. <p>[Final Order on ASC, Land Use Condition 1]</p>
GEN-LU-02	<p>During design and construction of the facility, the certificate holder shall:</p> <ul style="list-style-type: none">a. Obtain an access permit for changes in access on Morrow County roads; andb. Improve or develop private access roads impacting intersections with Morrow County roads in compliance with Morrow County access standards. <p>[Final Order on ASC, Land Use Condition 4]</p>
GEN-LU-03	<p>During design and construction, the certificate holder shall implement the following actions on all meteorological towers approved through the site certificate:</p> <ul style="list-style-type: none">a. Paint the towers in alternating bands of white and red or aviation orange; andb. Install aviation lighting as recommended by the Federal Aviation Administration. <p>[Final Order on ASC, Land Use Condition 9]</p>
GEN-LU-04	<p>The certificate holder shall design and construct 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. Where possible, underground communication and electrical lines shall be buried within the area disturbed by temporary road widening.</p> <p>[Final Order on ASC, Land Use Condition 11]</p>
GEN-LU-05	<p>During design and construction of the facility, the certificate holder shall ensure that fencing and landscaping selected and used for the O&M building and similar facility components sited within Morrow County blend with the nature of the surrounding area.</p> <p>[Final Order on ASC, Land Use Condition 14]</p>
GEN-LU-06	<p>During micrositing of the facility, the certificate holder shall ensure that wind turbines are sited based on a minimum setback of 110% of the overall tower-to-blade tip height from the boundary right-of-way of county roads and state and interstate highways in Umatilla County.</p> <p>[Final Order on ASC, Land Use Condition 16]</p>
GEN-LU-07	<p>During design and construction, the certificate holder must ensure that the O&M building in Umatilla County is consistent with the character of similar agricultural buildings used by commercial farmers or ranchers in Umatilla County.</p> <p>[Final Order on ASC, Land Use Condition 20]</p>

GEN-LU-08	<p>During facility design and construction of new access roads and road improvements, the certificate holder shall implement best management practices after consultation with the Umatilla County Soil Water Conservation district. The new and improved road designs must be reviewed and certified by a civil engineer.</p> <p>[Final Order on ASC, Land Use Condition 22]</p>
GEN-LU-09	<p>Before beginning electrical production, the certificate hold shall provide the location of each turbine tower, electrical collecting lines, the O&M building, the substation, project access roads, and portion of the intraconnection transmission line located in Umatilla County to the department and Umatilla County in a format suitable for GPS mapping.</p> <p>[Final Order on ASC, Land Use Condition 24]</p>
GEN-LU-10	<p>During construction and operation of the facility, the certificate holder shall deliver a copy of the annual report required under OAR 345-026-0080 to the Umatilla County Planning Commission on an annual basis.</p> <p>[Final Order on ASC, Land Use Condition 28]</p>
STANDARD: RETIREMENT AND FINANCIAL ASSURANCE (RT) [OAR 345-022-0050]	
GEN-RF-01	<p>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.</p> <p>[Final Order on ASC, Retirement and Financial Assurance Condition 1] [Mandatory Condition OAR 345-027025-00206(7)]</p>
STANDARD: FISH AND WILDLIFE HABITAT (FW) [OAR 345-022-0060]	
GEN-FW-01	<p>During construction and operation, the certificate holder shall impose a 20 mile per hour speed limit on new and improved private access roads, which have been approved as a related and supporting facility to the energy facility.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 2]</p>
GEN-FW-02	<p>The certificate holder shall construct all overhead collector and transmission intraconnection lines in accordance with the latest Avian Power Line Interaction Committee design standards, and shall only install permanent meteorological towers that are unguyed.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 6]</p>
STANDARD: SCENIC RESOURCES (SR) [OAR 345-022-0080]	
GEN-SR-01	<p>To reduce visual impacts associated with lighting facility structures, other than lighting on structures subject to the requirements of the Federal Aviation Administration or the Oregon Department of Aviation, the certificate holder shall implement the following measures:</p> <ol style="list-style-type: none"> a. Outdoor night lighting at the collector substations, and Operations and Maintenance Buildings, and battery storage systems, must be <ol style="list-style-type: none"> i. The minimum number and intensity required for safety and security; ii. Directed downward and inward within the facility to minimize backscatter and offsite light trespass; and iii. Have motion sensors and switches to keep lights turned off when not needed. <p>[Final Order on ASC, Scenic Resources Condition 1, Amended in Final Order on AMD2]</p>

GEN-SR-02	<p>The certificate holder shall:</p> <ol style="list-style-type: none"> a. Design and construct the O&M buildings <u>and battery storage systems to be</u> generally consistent with the character of agricultural buildings used by farmers or ranchers in the area, and the buildings shall be finished in a neutral color to blend with the surrounding landscape; b. Paint or otherwise finish turbine structures in a grey, white, or off-white, low reflectivity coating to minimize reflection and contrast with the sky, unless required otherwise by the local code applicable to the structure location. c. Design and construct support towers for the intraconnection transmission lines using either wood or steel structures and utilize finish with a low reflectivity coating; d. Finish substation structures <u>and battery storage systems</u> utilizing neutral colors to blend with the surrounding landscape; e. Minimize use of lighting and design lighting to prevent offsite glare; f. Not display advertising or commercial signage on any part of the proposed facility; g. Limit vegetation clearing and ground disturbance to the minimum area necessary to safely and efficiently install the facility equipment; h. Water access roads and other areas of ground disturbance during construction, as needed, to avoid the generation of airborne dust; and i. Restore and revegetate temporary impact areas as soon as practicable following completion of construction. <p>[Final Order on ASC, Scenic Resources Condition 2, <u>Amended in Final Order on AMD2</u>]</p>
STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0110]	
GEN-PS-01	<p>During construction and operation, the certificate holder shall coordinate with its solid waste handler to provide the information solicited through the Oregon Department of Environmental Quality's Recycling Collector Survey to the Morrow County waste shed representative on an annual basis.</p> <p>[Final Order on ASC, Public Services Condition 5]</p>
GEN-PS-02	<p>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 O&M buildings shall be fenced. The certificate holder shall keep tower access doors and O&M buildings locked at all times, except when authorized personnel are present.</p> <p>[Final Order on ASC, Public Services Condition 11]</p>

GEN-PS-03	<p>Prior to construction and operation of the facility, , the certificate holder must provide employee fire prevention and response training that includes instruction on facility fire hazards, fire safety, emergency notification procedures, use of fire safety equipment, and fire safety rules and regulations. The certificate holder shall notify the department and the first-response agencies listed in the Emergency Management Plan developed to comply with Public Services Condition 13 at least 30 days prior to the annual training to provide an opportunity to participate in the training. Equivalent training shall be provided to new employees or subcontractors working on site that are hired during the fire season. The certificate holder must retain records of the training and provide them to the department upon request.</p> <p>[Final Order on ASC, Public Services Condition 18]</p>
<u>GEN-PS-04</u>	<p><u>The certificate holder shall design, construct and maintain the battery storage systems facilities within a 100 foot vegetation free zone.</u></p> <p><u>[Final Order on AMD32, Public Services Condition 23]</u></p>
STANDARD: PUBLIC HEALTH AND SAFETY FOR WIND FACILITIES (WF) [OAR 345-024-0010]	
GEN-WF-01	<p>During construction and operation, the certificate holder shall follow manufacturers' recommended handling instructions and procedures to prevent damage to turbine or turbine tower components.</p> <p>[Final Order on ASC, Public Health and Safety Standards for Wind Facilities Condition 3]</p>
GEN-WF-02	<p>The certificate holder shall notify the department, the Morrow County Planning Department and the Umatilla 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 or safety concerns.</p> <p>[Final Order on ASC, Public Health and Safety Standards for Wind Facilities Condition 5]</p>

4.3 Pre-Construction (PRE) Conditions

Condition Number	Pre-Construction (PRE) Conditions
STANDARD: ORGANIZATIONAL EXPERTISE (OE) [OAR 345-022-0010]	
PRE-OE-01	<p>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 changes of major contractors.</p> <p>[Final Order on ASC, Organizational Expertise Condition 1]</p>
PRE-OE-02	<p>Before beginning construction, the certificate holder shall notify the department of the identity and qualifications of the construction manager to demonstrate that the construction manager is qualified in environmental compliance and has the capability to ensure compliance with all site certificate conditions.</p> <p>[Final Order on ASC, Organizational Expertise Condition 2]</p>
PRE-OE-03	<p>Prior to construction, 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.</p> <p>[Final Order on ASC, Organizational Expertise Condition 3]</p>
PRE-OE-04	<p>Before beginning construction, the certificate holder shall notify the department before conducting any work on the site that does not qualify as surveying, exploration, or other activities to define or characterize the site. The notice must include a description of the work and evidence that its value is less than \$250,000 or evidence that the certificate holder has satisfied all conditions that are required prior to beginning construction.</p> <p>[Final Order on ASC, Organizational Expertise Condition 4]</p>
PRE-OE-05	<p>Prior to construction, the certificate holder must provide the department and Umatilla and Morrow Counties with the name(s) and location(s) of the aggregate source and evidence of the source’s county permit(s).</p> <p>[Final Order on ASC, Organizational Expertise Condition 7]</p>
PRE-OE-06	<p>Before beginning construction on any phase of the facility, the certificate holder must provide evidence to the department and Morrow and Umatilla counties that the third party that will construct, own and operate the interconnection transmission line has obtained all necessary approvals and permits for that interconnection transmission line and that the certificate holder has a contract with the third party for use of the transmission line.</p> <p>[Final Order on ASC, Organizational Expertise Condition 8]</p>

STANDARD: STRUCTURAL (SS) [OAR 345-022-0020]

PRE-SS-01	<p>Before beginning construction, the certificate holder must:</p> <p>a) <u>Submit a protocol to the Department and Oregon Department of Geology & Mineral Industries (DOGAMI), for review, with the applicable codes, standards, and guidelines to be used, and proposed geotechnical work to be conducted for the site-specific geotechnical investigation report.</u></p> <p>a)b) <u>Following receipt and review of Department and DOGAMI comments on the protocol per (a), the certificate holder shall</u>-conduct a site-specific geological and geotechnical investigation, and shall report its findings to DOGAMI and the department. The report shall be used by the certificate holder in final facility layout and design. The department shall review, in consultation with DOGAMI, and confirm that the investigation report includes an adequate assessment of the following information:</p> <ul style="list-style-type: none">• Subsurface soil and geologic conditions of the site boundary• Define and delineate geological and geotechnical hazards, and means to mitigate these hazards• Geotechnical design criteria and data for the turbine foundations, foundations of substations, O&M buildings, <u>battery storage systems</u>, roads, and other related and supporting facilities• Design data for installation of underground and overhead collector lines, and overhead transmission lines• Investigation of specific areas with potential for slope instability and landslide hazards. Landslide hazard evaluation shall be conducted by LIDAR and field work, as recommended by DOGAMI• Investigations of the swell and collapse potential of loess soils within the site boundary. <p>[Final Order on ASC, Structural Standard Condition 1; <u>Amended in Final Order on AMD2</u>]</p>
PRE-SS-02	<p>Prior to construction, the certificate holder shall include as part of the geotechnical investigation required per Structural Standard Condition 1, an investigation of all potentially active faults within the site boundary, including the fault labeled as 2438 on Figures H-1 and H-2 of ASC Exhibit H. The investigation shall include a description of the potentially active faults, their potential risk to the facility, and any additional mitigation that will be undertaken by the certificate holder to ensure safe design, construction, and operation of the facility.</p> <p>[Final Order on ASC, Structural Standard Condition 3]</p>
PRE-SS-03	<p>Prior to construction, the certificate holder shall include as part of the geotechnical investigation required per Structural Standard Condition 1 an investigation of specific areas with potential for slope instability and shall site turbine strings appropriate to avoid potential hazards. The landslide hazards shall be investigated and mapped before final facility layout and design. The landslide hazard evaluation shall be conducted by a combination of LIDAR and field work.</p> <p>[Final Order on ASC, Structural Standard Condition 4]</p>
PRE-SS-04	<p>Prior to construction, the certificate holder shall include as part of the geotechnical investigation required per Structural Standard Condition 1, an investigation of the swell and collapse potential of loess soil in the site boundary. Based on the results of the investigation, the certificate holder shall include mitigation measures including, as necessary, over-excavating and replacing loess soil with structural fill, wetting and compacting, deep foundations, or avoidance of specific areas.</p> <p>[Final Order on ASC, Structural Standard Condition 5]</p>

STANDARD: SOIL PROTECTION (SP) [OAR 345-022-0022]

PRE-SP-01	<p>Prior to beginning construction, the certificate holder shall provide a copy of a DEQ-approved construction Spill Prevention Control and Countermeasures (SPCC) plan, to be implemented during</p>
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facility construction. The SPCC plan shall include the measures described in Exhibit I of ASC and in the final order approving the site certificate. [Final Order on ASC, Soil Protection Condition 3]

PRE-SP-02	<p>Prior to construction, the certificate holder shall ensure that the final Revegetation Plan includes a program to protect and restore agricultural soils temporarily disturbed during facility construction. As described in the final order, agriculture soils shall be properly excavated, stored, and replaced by soil horizon. Topsoil shall be preserved and replaced. The Revegetation Plan shall be finalized pursuant to Fish and Wildlife <u>Habitat</u> Condition 11.</p> <p>[Final Order on ASC, Soil Protection Condition 4]</p>
PRE-SP-03	<p>Prior to beginning construction of the O&M buildings, the certificate holder shall secure any necessary septic system permits from DEQ. Copies of the necessary permits must be provided to the department prior to beginning construction of the O&M buildings.</p> <p>[Final Order on ASC, Soil Protection Condition 7]</p>
STANDARD: LAND USE (LU) [OAR 345-022-0030]	
PRE-LU-01	<p>Before beginning construction, the certificate holder shall complete the following:</p> <ul style="list-style-type: none"> a. Pay the requisite fee and obtain a Zoning Permit from Morrow County for all facility components sited in Morrow County; and <u>b. Obtain all other necessary local permits, including building permits.</u> <u>c. Provide the county with a building permit application, a third party technical report which includes:</u> <ul style="list-style-type: none"> <u>1. Evaluates fire hazards and;</u> <u>2. Presents mitigation and recommendations for a fire suppression system designed for the battery storage systems.</u> <u>b-d. The certificate holder shall provide copies of the third-party technical report and issued permits to the Department.</u> <p>[Final Order on ASC, Land Use Condition 3; <u>Amended in Final Order on AMD22</u>]</p>
PRE-LU-02	<p>Before beginning construction, the certificate holder shall pay the requisite fee and obtain a Conditional Use Permit as required under Morrow County Zoning Ordinance Article 6 Section 6.015.</p> <p>[Final Order on ASC, Land Use Condition 5]</p>
PRE-LU-03	<p>Before beginning construction, the certificate holder shall prepare a Weed Control Plan that is consistent with Morrow and Umatilla County weed control requirements to be approved by the department. The department shall consult with Morrow and Umatilla counties and ODFW. The final plan must be submitted to the department no less than 30 days prior to the beginning of construction. The certificate holder shall implement the requirements of the approved plan during all phases of construction and operation of the facility.</p> <p>[Final Order on ASC, Land Use Condition 6]</p>
PRE-LU-04	<p>Before beginning construction, the certificate holder shall record in the real property records of Morrow County a Covenant Not to Sue with regard to generally accepted farming practices on adjacent farmland.</p> <p>[Final Order on ASC, Land Use Condition 7]</p>
PRE-LU-05	<p>Prior to beginning construction, the certificate holder shall consult with surrounding landowners and lessees and shall consider proposed measures to reduce or avoid any adverse impacts to farm practices on surrounding lands and to avoid any increase in farming costs during construction and operation of the facility. Prior to beginning construction, the certificate holder shall provide evidence of this consultation to the department, Morrow County, and Umatilla County.</p> <p>[Final Order on ASC, Land Use Condition 12]</p>

PRE-LU-06	<p>Before beginning construction, the certificate holder shall work with the Morrow County Road Department to identify specific construction traffic related concerns, and develop a traffic management plan that specifies necessary traffic control measures to mitigate the effects of the temporary increase in traffic. The certificate holder must provide a copy of the traffic management plan to the department and Morrow County, and must implement the traffic management plan during construction.</p> <p>[Final Order on ASC, Land Use Condition 13]</p>
PRE-LU-07	<p>Before beginning construction, the certificate holder must pay the requisite fee(s) and obtain a Zoning Permit(s) from Umatilla County for facility components sited within Umatilla County, including, but not limited to, turbines, substation, O&M building, and the intraconnection line.</p> <p>[Final Order on ASC, Land Use Condition 15]</p>
PRE-LU-08	<p>Prior to facility construction, the certificate holder shall install gates and no trespassing signs at all private access roads established or improved for the purpose of facility construction and operation.</p> <p>[Final Order on ASC, Land Use Condition 18]</p>
PRE-LU-09	<p>Before beginning construction, the certificate holder shall record in the real property records of Umatilla County a Covenant Not to Sue with regard to generally accepted farming practices on adjacent farmland.</p> <p>[Final Order on ASC, Land Use Condition 21]</p>
STANDARD: RETIREMENT AND FINANCIAL ASSURANCE (RT) [OAR 345-022-0050]	
PRE-RF-01	<p>Before beginning construction 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 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 has been retired. The Council may specify different amounts for the bond or letter of credit during construction and during operation of the facility.</p> <p>[Final Order on ASC, Retirement and Financial Assurance Condition 4]</p> <p>[Mandatory Condition OAR 345-027025-00200006(8)]</p>

PRE-RF-02

Before beginning construction of the facility, the certificate holder shall submit to the State of Oregon, through the Council, a bond or letter of credit naming the State of Oregon, acting by and through the Council, as beneficiary or payee. The initial bond or letter of credit amount for the facility is ~~\$19.5~~ ~~\$18.1~~ million dollars (~~Q1-Q3 2015-2018~~ dollars), to be adjusted to the date of issuance, and adjusted on an annual basis thereafter, as described in sub-paragraph (b) of this condition:

- (a) The certificate holder may adjust the amount of the initial bond or letter of credit based on the final design configuration of the facility. Any revision to the restoration costs should be adjusted to the date of issuance as described in (b) and subject to review and approval by the Council.
- (b) The certificate holder shall adjust the amount of the bond or letter of credit using the following calculation:
 - (1) Adjust the amount of the bond or letter of credit (expressed in ~~Q3 2018 dollars~~~~Q1-2015 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 and using the ~~first quarter 2015~~~~third quarter 2018~~ index value 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 ~~third quarter 2018~~~~first quarter 2015~~ dollars to present value.
 - (2) Round the result total to the nearest \$1,000 to determine the financial assurance amount.
- (c) The certificate holder shall use an issuer of the bond or letter of credit approved by the Council.
- (d) The certificate holder shall use a form of bond or letter of credit approved by the Council. The certificate holder shall describe the status of the bond or letter of credit in the annual report submitted to the Council under OAR 345-026-0080. The bond or letter of credit shall not be subject to revocation or reduction before retirement of the facility site.

[Final Order on ASC, Retirement and Financial Assurance Condition 5; ~~Amended in Final Order on AMD2~~]

STANDARD: FISH AND WILDLIFE HABITAT (FW) [OAR 345-022-0060]

PRE-FW-01	<p>Prior to final site design and facility layout, the certificate holder shall conduct a field-based habitat survey to confirm the habitat categories of all areas that will be affected by facility components, as well as the locations of any sensitive resources such as active raptor and other bird nests. The survey shall be planned in consultation with the department and ODFW, and survey protocols shall be confirmed with the department and ODFW. Following completion of the field survey, and final layout design and engineering, the certificate holder shall provide the department and ODFW a report containing the results of the survey, showing expected final location of all facility components, the habitat categories of all areas that will be affected by facility components, and the locations of any sensitive resources.</p> <p>The report shall also include an updated version of Table FW-1 Potential Temporary and Permanent Impacts by Habitat Category and Type of the final order, showing the acres of expected temporary and permanent impacts to each habitat category, type, and sub-type. The pre-construction survey shall be used to complete final design, facility layout, and micro-siting of facility components. As part of the report, the certificate holder shall include its impact assessment methodology and calculations, including assumed temporary and permanent impact acreage for each transmission structure, wind turbine, access road, and all other facility components. If construction laydown yards are to be retained post construction, due to a landowner request or otherwise, the construction laydown yards must be calculated as permanent impacts, not temporary.</p> <p>In classifying the affected habitat into habitat categories, the certificate holder shall consult with the department and ODFW. The certificate holder shall not begin construction of the facility until the habitat assessment, categorization, and impact assessment has been approved by the department, in consultation with ODFW. The certificate holder shall not construct any facility components within areas of Category 1 habitat and shall avoid temporary disturbance of Category 1 habitat.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 1]</p>
PRE-FW-02	<p>Prior to construction, the certificate holder shall finalize and implement the Wildlife Monitoring and Mitigation Plan (WMMP) provided in Attachment D of this order, based on the final facility design, as approved by the department in consultation with ODFW.</p> <ol style="list-style-type: none">a. The final WMMP must be submitted and ODOE's concurrence received prior to the beginning of construction. ODOE shall consult with ODFW on the final WMMP. The certificate holder shall implement the requirements of the approved WMMP during all phases of construction and operation of the facility.b. The WMMP 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 the WMMP agreed to by the Department. <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 4]</p>
PRE-FW-03	<p>Prior to construction, the certificate holder shall flag all environmentally sensitive areas as restricted work zones. Restricted work zones shall include but not be limited to areas with sensitive or protected plant species, including candidate species, wetlands and waterways that are not authorized for construction impacts, areas with seasonal restrictions, and active state sensitive species bird nests.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 8]</p>

PRE-FW-04	<p>Before beginning construction the certificate holder shall prepare and receive approval from the department of a final Habitat Mitigation Plan. The final Habitat Mitigation Plan shall be based on the final facility design and shall be approved by the department in consultation with ODFW. The Council retains the authority to approve, reject or modify the final HMP.</p> <ol style="list-style-type: none"> a. The final Habitat Mitigation Plan and the department’s approval must be received prior to beginning construction. The department shall consult with ODFW on the final plan. The certificate holder shall implement the requirements of the approved plan during all phases of construction and operation of the facility. b. The certificate holder shall calculate the size of the habitat mitigation area according to the final design configuration of the facility and the estimated areas of habitat affected in each habitat category, in consultation with the department, as per the pre-construction survey results and impact assessment calculations called for in Fish and Wildlife <u>Habitat</u> Condition 1. c. The certificate holder shall acquire the legal right to create, enhance, maintain, and protect the 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 prior to the start of construction. Within the habitat mitigation area, the certificate holder shall improve the habitat quality as described in the final Habitat Mitigation Plan. d. The final HMP shall include an implementation schedule for all mitigation actions, including securing the conservation easement, conducting the ecological uplift actions at the habitat mitigation area, revegetation and restoration of temporarily impacted areas, and monitoring. The mitigation actions shall be implemented according to the following schedule, as included in the HMP: <ol style="list-style-type: none"> i. Restoration and revegetation of temporary construction-related impact area shall be conducted as soon as possible following construction. ii. The certificate holder shall obtain legal authority to conduct the required mitigation work at the compensatory habitat mitigation site before commencing construction. The habitat enhancement actions at the compensatory habitat mitigation site shall be implemented concurrent with construction. e. The final HMP shall include a monitoring and reporting program for evaluating the effectiveness of all mitigation actions, including restoration of temporarily impacted areas and ecological uplift actions at the habitat mitigation area. f. The final HMP shall include mitigation in compliance with the Council’s Fish and Wildlife Habitat standard, including mitigation for temporary impacts to Category 4 habitat (shrub-steppe habitat); and, mitigation for all Category 2 habitat impacts that meet the mitigation goal of no net loss of habitat quality or quantity, plus a net benefit of habitat quality or quantity. g. The final HMP 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. <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 10]</p>
PRE-FW-05	<p>Before beginning construction, the certificate holder shall prepare and receive approval of a final Revegetation Plan, provided as Attachment C to this order, from the department, in consultation with Umatilla and Morrow counties and ODFW. The certificate holder shall implement the requirements of the approved plan during all phases of construction and operation of the facility.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 11]</p>

STANDARD: THREATENED AND ENDANGERED SPECIES (TE) [OAR 345-022-0070]

PRE-TE-01	<p>Prior to construction, the certificate holder shall determine the boundaries of Category 1 Washington ground squirrel habitat. The certificate holder shall hire a qualified professional biologist who has experience in detection of Washington ground squirrel to conduct pre-construction surveys using a survey protocol approved by the department in consultation with ODFW. The biologist shall survey all areas of suitable habitat within 1,000 feet of any ground disturbing activity. Ground disturbing activity refers to any potential impact, whether permanent or temporary. The protocol surveys shall be conducted in the active squirrel season (March 1 to May 31) prior to construction commencement. The protocol survey is valid for three years. If construction begins within three years of conducting the protocol survey, but not within one year of the protocol survey, the certificate holder shall conduct a pre-construction survey only within areas of suitable Washington ground squirrel habitat where ground disturbing activity would occur.</p> <p>The certificate holder shall provide written reports of the surveys to the department and to ODFW and shall identify the boundaries of Category 1 Washington ground squirrel (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, in consultation with ODFW.</p> <p>The certificate holder shall avoid any permanent or temporary disturbance in all Category 1 WGS habitat. The certificate holder shall ensure that these sensitive areas are correctly marked with exclusion flagging and avoided during construction.</p> <p>[Final Order on ASC, Threatened and Endangered Species Condition 1]</p>
PRE-TE-02	<p>In accordance with Fish and Wildlife <u>Habitat</u> Condition <u>43</u>, prior to construction, the certificate holder shall finalize and implement the Wildlife Monitoring and Mitigation Plan (WMMP) provided in Attachment D of this order, based on the final facility design, as approved by the department in consultation with ODFW. The final WMMP shall include a program to monitor potential impacts from facility operation on Washington ground squirrel. Monitoring shall be of any known colonies and shall be completed on the same schedule as the raptor nest monitoring for the facility. The monitoring surveys shall include returning to the known colonies to determine occupancy and the extent of the colony as well as a general explanation of the amount of use at the colony. If the colony is not found within the known boundary of the historic location a survey 500 feet out from the known colony will be conducted to determine if the colony has shifted over time. Any new colonies that are located during other monitoring activities, such as raptor nest monitoring surveys, shall be documented and the extent of those colonies should be delineated as well. These newly discovered colonies shall also be included in any future WGS monitoring activities.</p> <p>[Final Order on ASC, Threatened and Endangered Species Condition 2]</p>
PRE-TE-03	<p>To avoid potential impacts to Laurent’s milkvetch, the certificate holder must:</p> <ol style="list-style-type: none">i. Conduct preconstruction plant surveys for Laurent’s milkvetch <u>within 1,000-feet of temporary and permanent disturbance from the 230 kV intraconnection transmission line; and, within 500-feet of temporary and permanent disturbance from all other facility components.</u> If the species is found to occur, the certificate holder must install protection flagging around the plant population and avoid any ground disturbance within this zone.ii. Ensure that any plant protection zone established under (a) above is included on construction plans showing the final design locations.iii. If herbicides are used to control weeds, the certificate holder shall follow the manufacturer’s guidelines in establishing a buffer area around confirmed populations of Laurent’s milkvetch. Herbicides must not be used within the established buffers.

[Final Order on ASC, Threatened and Endangered Species Condition 3; Amended in Final Order on AMD2]

STANDARD: HISTORIC, CULTURAL, AND ARCHAEOLOGICAL RESOURCES (HC) [OAR 345-022-0090]

PRE-HC-01	<p>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 will be temporarily disturbed during construction and the areas that were surveyed in 2013-14 for historic, cultural, and archaeological resources.</p> <p>[Final Order on ASC, Historic, Cultural, and Archeological Resources Condition 1]</p>
PRE-HC-02	<p>Before beginning construction, the certificate holder shall mark the buffer areas established under Historic, Cultural, and Archeological Resources Condition 3 for all identified historic, cultural, or archaeological resource sites (including those of unknown age) on construction maps and drawings as “no entry” areas. A copy of current maps and drawings must be maintained onsite during construction and made available to the department upon request.</p> <p>[Final Order on ASC, Historic, Cultural, and Archeological Resources Condition 2]</p>
PRE-HC-03	<p>Before beginning construction, the certificate holder shall ensure that a qualified archeologist, as defined in OAR 736-051-0070, trains construction contractors on how to identify sensitive historic, cultural, and archaeological resources present onsite and on measures to avoid accidental damage to identified resource sites. Records of such training must be maintained onsite during construction, and made available to the department upon request.</p> <p>[Final Order on ASC, Historic, Cultural, and Archeological Resources Condition 4]</p>

STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0110]

PRE-PS-01	<p>Prior to construction, the certificate holder shall prepare a Traffic Management Plan that includes the procedures and actions described in this order and the mitigation measures identified in ASC Exhibit U, Section 3.5.4. The plan shall be approved by the department in consultation with the appropriate transportation service providers. The plan shall be maintained onsite and implemented throughout construction of the facility.</p> <p>In addition, the certificate holder shall include the following information in the plan:</p> <ol style="list-style-type: none">Procedures to provide advance notice to all affected local jurisdictions and adjacent landowners of construction deliveries and the potential for heavy traffic on local roads;A policy of including traffic control procedures in contract specifications for construction of the facility;Procedures to maintain 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;A policy of ensuring 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 Morrow County and Umatilla County Public Works Departments;A policy to encourage and promote carpooling for the construction workforce; andProcedures to keep state highways and county roads free of gravel that may be tracked out on intersecting roads at facility access points. <p>[Final Order on ASC, Public Services Condition 6]</p>
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PRE-PS-02	<p>Before beginning construction, the certificate holder must enter into Road Use Agreements with the Morrow County and Umatilla County Public Works Departments. The Agreements must include, at a minimum, a pre-construction assessment of road surfaces under Morrow County and Umatilla County jurisdiction, construction monitoring, and post-construction inspection and repair. A copy of the Road Use Agreements with Morrow County and Umatilla County must be submitted to the department before beginning construction. If required by Morrow County or Umatilla County, the certificate holder shall post bonds to ensure funds are available to repair and maintain roads affected by the facility.</p> <p>[Final Order on ASC, Public Services Condition 7]</p>
PRE-PS-03	<p>The certificate holder shall design and construct new access roads and private road improvements to standards approved by Umatilla County or Morrow County. 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 Umatilla County and Morrow County Public Works Departments.</p> <p>[Final Order on ASC, Public Services Condition 8]</p>
PRE-PS-04	<p>Before beginning construction, the certificate holder shall submit to the Federal Aviation Administration (FAA) and the Oregon Department of Aviation an FAA Form 7460-1 Notice of Proposed Construction or Alteration for each turbine. Before beginning construction, the certificate holder shall submit to the department the results of the Oregon Department of Aviation aeronautical study and determination. If the department, in consultation with the Oregon Department of Aviation, determines that any turbine would adversely impact an airport's ability to provide service by obstructing the airport's primary or horizontal surface, the department, in consultation with the Oregon Department of Aviation and the certificate holder, shall determine appropriate mitigation, if any, prior to construction.</p> <p>[Final Order on ASC, Public Services Condition 9]</p>

PRE-PS-05	<p>Prior to construction, the certificate holder shall prepare an Emergency Management Plan that includes the procedures and actions described in this order and in ASC Exhibit U. The certificate holder shall submit the plan to ODOE for review and approval in consultation with the appropriate local fire protection districts (including the City of Heppner Volunteer Fire Department, Lone Rural Fire Protection District, and Echo Rural Fire Protection District) prior to construction. The plan shall be maintained onsite and implemented throughout construction and operation of the facility. Any updates to the plan shall be provided to the department within 30 days. All onsite workers shall be trained on the fire prevention and safety procedures contained in the plan prior to working on the facility.</p> <p>Additional information that shall be included in the plan:</p> <ol style="list-style-type: none"> a. Current contact information of at least two facility personnel available to respond on a 24-hour basis in case of an emergency on the facility site. The contact information must include name, telephone number(s), physical location, and email address for the listed contact(s). An updated list must be provided to the fire protection agencies immediately upon any change of contact information. A copy of the contact list, and any updates as they occur, must also be provided to the Department, along with a list of the agencies that received the contact information. b. Identification of agencies that participated in developing the plan; c. Identification of agencies that are designated as first response agencies or are included in any mutual aid agreements with the facility; d. A list of any other mutual aid agreements or fire protection associations in the vicinity of the facility; e. Contact information for each agency listed above; f. Communication protocols for both routine and emergency events and the incident command system to be used in the event a fire response by multiple agencies is needed at the facility; g. Access and fire response at the facility site during construction and operations. Fire response plans during construction should address regular and frequent communication amongst the agencies regarding the number and location of construction sites within the site boundary, access roads that are completed and those still under construction, and a temporary signage system until permanent addresses and signs are in place; h. The designated meeting location in case of evacuation; i. Staff training requirements; and <p>Copies of mutual aid, fire protection association, or other agreements entered into concerning fire protection at the facility site.</p> <p>[Final Order on ASC, Public Services Condition 13]</p>
PRE-PS-06	<p>Before beginning construction, the certificate holder shall develop and implement, or require its contractors to develop and implement, a site health and safety plan that informs workers and others onsite about first aid techniques and what to do in case of an emergency. The health and safety plan will include preventative measures, important telephone numbers, the locations of onsite fire extinguishers, and the names, locations and contact information of nearby hospitals. All onsite workers shall be trained in safety and emergency response, as per the site health and safety plan. The site health and safety plan must be updated on an annual basis, maintained throughout the construction and operations and maintenance phases of the facility, and available upon request by the department.</p> <p>[Final Order on ASC, Public Services Condition 20]</p>

PRE-PS-07	<p>Before beginning construction, the certificate holder shall ensure that all construction workers are certified in first aid, cardio pulmonary resuscitation (CPR), and the use of an automated external defibrillator (AED). The certificate holder must retain records of the certifications and provide them to the department upon request. The certificate holder shall also ensure that an AED is available onsite at all times that construction activities are occurring.</p> <p>[Final Order on ASC, Public Services Condition 21]</p>
STANDARD: WASTE MINIMIZATION (WM,) [OAR 345-022-0120]	
PRE-WM-01	<p>Prior to construction, the certificate holder shall develop a construction waste management plan, to be implemented during all phases of facility construction, which includes at a minimum the following details:</p> <ol style="list-style-type: none"> a. Specification of the number and types of waste containers to be maintained at construction sites and construction yards b. Description of waste segregation methods for recycling or disposal. c. Names and locations of appropriate recycling and waste disposal facilities, collection requirements, and hauling requirements to be used during construction. <p>The certificate holder shall maintain a copy of the construction waste management plan onsite and shall provide to the department a report on plan implementation in the 6-month construction report required pursuant to OAR 345-026-0080(1)(a).</p> <p>[Final Order on ASC, Waste Minimization Condition 2]</p>
PRE-WM-02	<p>Prior to construction, the certificate holder shall investigate and confirm that no surface waters, shallow groundwater, or drinking water sources will be adversely impacted by the usage of concrete washout water in the foundations of facility components, and shall submit an investigation report to the department. Prior to construction, the department, in consultation with DEQ, shall review the results of the investigation report and shall verify that the plan to dispose of concrete washout water in the foundations of facility components is unlikely to adversely impact surface waters, shallow groundwater, or drinking water sources. The applicant's investigation shall be based on the anticipated final facility layout and design. If the results of the investigation show that the proposed concrete washout water disposal method would cause adverse impacts to surface water, shallow groundwater, or drinking water sources, the applicant shall propose mitigation measures to reduce potential impacts, for review and approval by the department in consultation with DEQ, prior to construction.</p> <p>[Final Order on ASC, Waste Minimization Condition 3]</p>
STANDARD: SITING STANDARDS FOR TRANSMISSION LINES (TL) [OAR 345-024-0090]	
PRE-TL-01	<p>Prior to construction, the certificate holder shall schedule a time to brief the OPUC Safety, Reliability, and Security Division (Safety) Staff as to how it will comply with OAR Chapter 860, Division 024 during design, construction, operations, and maintenance of the facilities.</p> <p>[Final Order on ASC, Siting Standard Condition 2]</p>

STANDARD: NOISE CONTROL REGULATION (NC) [OAR 345-035-0035]

PRE-NC-01

Prior to construction, the certificate holder shall provide to the department:

- a. Information that identifies the final design locations of all facility components to be built at the facility;
- b. The maximum sound power level for the facility components and the maximum sound power level and octave band data for the turbine type(s) and transformers selected for the facility based on manufacturers' warranties or confirmed by other means acceptable to the department;
- c. The results of the noise analysis of the final facility design performed in a manner consistent with the requirements of OAR 340-035-0035(1)(b)(B) (iii)(IV) and (VI). The analysis must demonstrate to the satisfaction of the department that the total noise generated by the facility (including turbines and transformers) would meet the ambient noise degradation test and maximum allowable test at the appropriate measurement point for all potentially-affected noise sensitive properties, or that the certificate holder has obtained the legally effective easement or real covenant for expected exceedances of the ambient noise degradation test described (d) below. The analysis must also identify the noise reduction operation (NRO) mode approach that will be used during facility operation and include a figure that depicts the turbines that will be operating in NRO mode and the associated dBA reduction level; and,
- d. 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 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 L_{10} and L_{50} 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 property on which the wind energy facility is located; 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, Noise Control Condition 2]

4.4 Construction (CON) Conditions

Condition Number	Construction (CON) Conditions
STANDARD: SOIL PROTECTION (SP) [OAR 345-022-0022]	
CON-SP-01	<p>During construction, the certificate holder shall conduct all work in compliance with a final Erosion and Sediment Control Plan (ESCP) that is satisfactory to the Oregon Department of Environmental Quality as required under the National Pollutant Discharge Elimination System Construction Stormwater Discharge General Permit 1200-C.</p> <p>[Final Order on ASC, Soil Protection Condition 1]</p>
CON-SP-02	<p>During construction, the erosion and sediment control best management practices and measures as described in ASC Exhibit I, Section 5.2 and listed in the final order approving the site certificate shall be included and implemented as part of the final ESCP.</p> <p>[Final Order on ASC, Soil Protection Condition 2]</p>
STANDARD: LAND USE (LU) [OAR 345-022-0030]	
CON-LU-01	<p>During construction, the certificate holder shall comply with the following requirements:</p> <ol style="list-style-type: none"> Construction vehicles shall use previously disturbed areas including existing roadways and tracks. Temporary construction yards and laydown areas shall be located within the future footprint of permanent structures to the extent practicable. New, permanent roadways will be the minimum width allowed while still being consistent with safe use and satisfying county road and safety standards. Underground communication and electrical lines will be buried within the area disturbed by temporary road widening to the extent practicable. <p>[Final Order on ASC, Land Use Condition 8]</p>
CON-LU-02	<p>During construction, the certificate holder shall install smooth turbine tower structures and turbine nacelles that lack perching or nesting opportunities for birds.</p> <p>[Final Order on ASC, Land Use Condition 17]</p>
CON-LU-03	<p>During construction, the certificate holder shall install the electrical cable collector system underground, where practicable. In agricultural areas, the collector system lines must be installed at a depth of 3 feet or deeper as necessary to prevent adverse impacts on agriculture operations. In all other areas, the collector system lines must be installed a minimum of 3 feet where practicable.</p> <p>[Final Order on ASC, Land Use Condition 19]</p>
STANDARD: FISH AND WILDLIFE HABITAT (FW) [OAR 345-022-0060]	
CON-FW-01	<p>No construction shall occur in mule deer winter range during winter, defined as December 1 to March 31. Mule deer winter range is based on data to be provided by ODFW at the time of construction.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 3]</p>

CON-FW-02	<p>During construction within the time periods listed below, the certificate holder shall implement buffer zones around nest sites of the species listed below. No ground-disturbing activities within the buffer zone shall occur during the seasonal restrictions. The construction workforce and facility employees must be provided maps with the locations of the buffer zones and be instructed to avoid ground-disturbing activity within the buffer zone during construction activities.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 5]</p>
CON-FW-03	<p>During construction, the certificate holder shall employ a qualified environmental professional to provide environmental training to all personnel prior to working onsite, related to sensitive species present onsite, precautions to avoid injuring or destroying wildlife or sensitive wildlife habitat, exclusion areas, permit requirements and other environmental issues. All personnel shall be given clear maps showing areas that are off-limits for construction, and shall be prohibited from working outside of the areas in the site boundary that have been surveyed and approved for construction. The certificate holder shall instruct construction personnel to report any injured or dead wildlife detected while on the site to the appropriate onsite environmental manager. Records of completed training shall be maintained onsite and made available to the department upon request.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 7]</p>
CON-FW-04	<p>During construction, the certificate holder shall employ at a minimum one environmental inspector to be onsite daily. The environmental inspector shall oversee permit compliance and construction, and ensure that known sensitive environmental resources are protected. The environmental inspector shall prepare a weekly report during construction, documenting permit compliance and documenting any corrective actions taken. Reports shall be kept on file and available for inspection by the department upon request.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 9]</p>
STANDARD: HISTORIC, CULTURAL, AND ARCHAEOLOGICAL RESOURCES (HC) [OAR 345-022-0090]	
CON-HC-01	<p>Immediately prior to construction activities, the certificate holder must flag or otherwise mark a 200-foot avoidance buffer around historic archaeological sites, as identified by the maps and drawings prepared in accordance with Historic, Cultural, and Archeological Resources Conditions 1 and 2. No disturbance is allowed within the buffer zones. For historic archaeological sites, an archeological monitor must be present if construction activities are required within 200-feet of sites identified as potentially eligible for listing on the National Register of Historic Places (NRHP). 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 buffer areas. Flagging or marking should be removed immediately upon cessation of activities in the area that pose a threat of disturbance to the site being protected.</p> <p>[Final Order on ASC, Historic, Cultural, and Archeological Resources Condition 3]</p>

CON-HC-02	<p>During construction, the certificate holder shall ensure that construction personnel cease all ground-disturbing activities in the immediate area if any archeological or cultural resources are found during construction of the facility until a qualified archeologist 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 ODOE, in consultation with SHPO, determines that the resource meets the definition of an archaeological object, archaeological site, or is eligible or likely to be eligible for listing on the (NRHP), the certificate holder shall, in consultation with the department, SHPO, interested Tribes and other appropriate parties, make recommendations to the Council for mitigation, including avoidance, field documentation and data recovery. The certificate holder shall not restart work in the affected area until the department, in consultation with SHPO, agree that the certificate holder has demonstrated that it has complied with archeological resources protection regulations.</p> <p>[Final Order on ASC, Historic, Cultural, and Archeological Resources Condition 5]</p>
STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0110]	
CON-PS-01	<p>During construction, the certificate holder shall include the following additional measures in the construction waste management plan required by Waste Minimization Condition 2:</p> <ol style="list-style-type: none"> 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 or by using facility equipment and personnel to haul the waste. Waste hauling by facility personnel within Morrow County shall be performed in compliance with the Morrow County Solid Waste Management Ordinance, which requires that all loads be covered and secured. e. Segregating all hazardous and universal wastes such as used oil, oily rags and oil-absorbent materials, mercury-containing lights and lead-acid and nickel-cadmium batteries for disposal by a licensed firm specializing in the proper recycling or disposal of hazardous and universal wastes. f. Discharging concrete truck rinse-out within foundation holes, completing truck wash-down off-site, and burying other concrete waste as fill on-site whenever possible. <p>[Final Order on ASC, Public Services Condition 3]</p>
CON-PS-02	<p>During construction of the facility, the certificate holder shall provide for 24-hour on-site security, and shall establish effective communications between on-site security personnel and the Morrow County Sheriff's Office and Umatilla County Sheriff's Office.</p> <p>[Final Order on ASC, Public Services Condition 10]</p>
CON-PS-03	<p>During construction of the facility, the certificate holder shall ensure that turbine construction personnel are trained and equipped for fall protection, high angle, and confined space rescue. The certificate holder must retain records of the training and provide them to the department upon request.</p> <p>[Final Order on ASC, Public Services Condition 14]</p>
CON-PS-04	<p>During construction, the certificate holder shall design turbines to be constructed on concrete pads with a minimum of 10 feet of nonflammable and non-erosive ground cover on all sides. The certificate holder shall cover turbine pad areas with nonflammable, non-erosive material immediately following exposure during construction and shall maintain the pad area covering during facility operation.</p> <p>[Final Order on ASC, Public Services Condition 16]</p>

CON-PS-05	During construction the certificate holder must maintain an area clear of vegetation for fire prevention around construction sites, including turbines and towers and any areas where work includes welding, cutting, grinding, or other flame- or spark-producing operations. [Final Order on ASC, Public Services Condition 17]
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STANDARD: WASTE MINIMIZATION (WM) [OAR 345-022-0120]

CON-WM-01	During construction, the certificate holder shall require construction contractors to complete the following for any off-site disposal of excess soil during construction activities: <ul style="list-style-type: none"> a. Obtain and provide the certificate holder with a signed consent agreement between contractor and the party receiving the earth materials authorizing the acceptance and disposal of the excess soil; and, b. Confirm that all disposal sites have been inspected and approved by the certificate holder’s environmental personnel to ensure that sensitive environmental resources, such as wetlands or high quality habitats, would not be impacted. The certificate holder shall maintain copies of all signed consent agreements and disposal site inspection and approvals onsite and shall provide to the department in the 6-month construction report required pursuant to OAR 345-026-0080(1)(a). [Final Order on ASC, Waste Minimization Condition 1]
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STANDARD: PUBLIC HEALTH AND SAFETY FOR WIND FACILITIES (WF) [OAR 345-024-0010]

CON-WF-01	During construction, the certificate holder shall install pad-mounted step-up transformers at the base of each tower in steel boxes designed to protect the public from electrical hazards. [Final Order on ASC, Public Health and Safety Standards for Wind Facilities Condition 1]
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CON-WF-02	During construction, the certificate holder shall install and maintain self-monitoring devices on each turbine, linked to sensors at the operations and maintenance building, connected to a fault annunciation panel or supervisory control and data acquisition (SCADA) system to alert operators to potentially 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. The certificate holder shall immediately remedy any dangerous conditions. [Final Order on ASC, Public Health and Safety Standards for Wind Facilities Condition 4]
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STANDARD: SITING STANDARDS FOR TRANSMISSION LINES (TL) [OAR 345-024-0090]

CON-TL-01	<p>During construction, the certificate holder shall take reasonable steps to reduce or manage human exposure to electromagnetic fields, including:</p> <ul style="list-style-type: none">a. Constructing all aboveground collector and transmission lines at least 200 feet from any residence or other occupied structure, measured from the centerline of the transmission line.b. Constructing all aboveground 34.5-kV transmission lines with a minimum clearance of 25 feet from the ground.c. Constructing all aboveground 230-kV transmission lines with a minimum clearance of 30 feet from the ground.d. Developing and implementing a program that provides reasonable assurance that all fences, gates, cattle guards, trailers, irrigation systems, 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 (OAR 345-027-0023(4)).e. Providing to landowners a map of underground and overhead transmission lines on their property and advising landowners of possible health and safety risks from induced currents caused by electric and magnetic fields.f. 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.g. Increasing the intraconnection transmission line height, shielding the electric field, or installing access barriers, if needed, to prevent induced current and nuisance shock of mobile vehicles.h. Designing and maintaining all transmission lines so that induced voltages during operation are as low as reasonably achievable.i. Designing, constructing and operating the transmission line in accordance with the requirements of the 2012 Edition of the National Electrical Safety Code approved on June 3, 2011 by the American National Standards Institute (OAR 345-027-0023(4)).j. Implement a safety protocol to ensure adherence to NESC grounding requirements <p>[Final Order on ASC, Siting Standard Condition 1]</p>
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STANDARD: NOISE CONTROL REGULATION (NC) [OAR 345-035-0035]

CON-NC-01

During construction, to reduce construction noise impacts at nearby residences, the certificate holder shall:

- a. Establish and enforce construction site and access road speed limits;
- b. Utilize electrically-powered equipment instead of pneumatic or internal combustion powered equipment, where feasible;
- c. Locate material stockpiles and mobile equipment staging, parking, and maintenance areas as far as practicable away from noise sensitive properties;
- d. Utilize noise-producing signals, including horns, whistles, alarms, and bells for safety warning purposes only;
- e. Equip all noise-producing construction equipment and vehicles using internal combustion engines with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed “package” equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment; and,
- f. Establish a noise complaint response system. All construction noise complaints will be logged within 48 hours of issuance. The construction supervisor shall have the responsibility and authority to receive and resolve noise complaints. A clear appeal process to the owner shall be established prior to the start of construction that will allow for resolution of noise problems that cannot be resolved by the site supervisor in a reasonable period of time. Records of noise complaints during construction must be made available to authorized representatives of the department upon request.

[Final Order on ASC, Noise Control Condition 1]

4.5 Pre-Operational (PRO) Conditions

Condition Number	Pre-Operational (PRO) Conditions
STANDARD: SOIL PROTECTION (SP) [OAR 345-022-0022]	
PRO-SP-01	<p>Prior to beginning facility operation, the certificate holder shall provide the Ddepartment a copy of a DEQ-approved operational SPCC plan, if <u>required per DEQ’s Hazardous Waste Program-determined to be required by DEQ</u>. If an SPCC plan is not required by DEQ, the certificate holder shall prepare and submit to the Ddepartment for review and approval an operational Spill Prevention and Management plan. The Spill Prevention and Management Plan shall include at a minimum the following procedures and BMPs:</p> <ul style="list-style-type: none"> • Procedures for oil and hazardous material emergency response consistent with OAR 340, Division <u>100-122 and 142</u> • Procedures demonstrating compliance with all applicable local, state, and federal environmental laws and regulations for handling hazardous materials used onsite in a manner that protects public health, safety, and the environment • Current inventory (type and quantity) of all hazardous materials stored onsite, specifying the amounts at each O&M building, <u>substation and battery storage system components</u> • Restriction limiting onsite storage of diesel fuel or gasoline • Requirement to store lubricating and dielectric oils in quantities equal to or greater than 55-gallons in qualified oil-filled equipment • Preventative measures and procedures to avoid spills <ul style="list-style-type: none"> ○ Procedures for chemical storage ○ Procedures for chemical transfer ○ Procedures for chemical transportation ○ Procedures for fueling and maintenance of equipment and vehicles ○ Employee training and education • Clean-up and response procedures, in case of an accidental spill or release • <u>Proper storage procedures</u> • <u>Reporting procedures in case of an accidental spill or release</u> <p>[Final Order on ASC, Soil Protection Condition 5; <u>Amended in Final Order on AMD2</u>]</p>
STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0110]	
PRO-PS-01	<p>Prior to operation of the facility, the certificate holder shall ensure that operations personnel are trained and equipped for fall protection and tower rescue, including high angle and confined space rescue. Refresher training in high angle and confined space rescue must be provided to operations personnel on an annual basis throughout the operational life of the facility. The certificate holder must retain records of the training and provide them to the department upon request.</p> <p>[Final Order on ASC, Public Services Condition 15]</p>
PRO-PS-02	<p>Before beginning operation of the facility, the certificate holder must provide a final site plan to the identified fire protection districts and first-responders included in the Emergency Management Plan. The certificate holder must indicate on the site plan the identification number assigned to each turbine and the actual location of all facility structures. The certificate</p>

	<p>holder shall provide an updated site plan if additional turbines or other structures are later added to the facility. [Final Order on ASC, Public Services Condition 19]</p>
<p>PRO-PS-03</p>	<p>Prior to operation, the certificate holder must ensure that operations personnel remain current in their first aid/CPR/AED certifications throughout the operational life of the facility. The certificate holder must retain records of the certifications and provide them to the department upon request. The certificate holder shall also ensure that an AED is available onsite at all times that operations and maintenance personnel are at the facility. [Final Order on ASC, Public Services Condition 22]</p>

4.6 Operational (OPR) Conditions

Condition Number	Operational (OPR) Conditions
STANDARD: GENERAL STANDARD OF REVIEW (GS) [OAR 345-022-0000]	
OPR-GS-01	<p>The certificate holder shall submit a legal description of the site to the Oregon 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 identify the outer boundaries that contain all parts of the facility.</p> <p>[Final Order on ASC, Mandatory Condition 1] [OAR 345-027025-00260(2)]</p>
STANDARD: SOIL PROTECTION (SP) [OAR 345-022-0022]	
OPR-SP-01	<p>During facility operation, the certificate holder shall:</p> <ol style="list-style-type: none"> Routinely inspect and maintain all facility components including roads, pads, and other facility components and, as necessary, maintain or repair erosion and sediment control measures and reduce potential facility contribution to erosion. Restrict vehicles to constructed access roads, and ensure material laydown or other maintenance activities occur within graveled areas or within the maintenance area of the O&M buildings to avoid unnecessary compaction, erosion, or spill risk to the area surrounding the facility. If in order to serve the operational needs of the energy facility, or related and supporting facilities, the certificate holder intends to substantially modify an existing road or construct a new road, the certificate holder must submit and receive Council approval of an amendment to the site certificate prior to the modification or construction. <p>[Final Order on ASC, Soil Protection Condition 6]</p>
STANDARD: LAND USE (LU) [OAR 345-022-0030]	
OPR-LU-01	<p>Within one month of commencement of commercial operation, the certificate holder shall submit an as-built survey for each construction phase that demonstrates compliance with the setback requirements in Land Use Condition 1 to the department and Morrow County.</p> <p>[Final Order on ASC, Land Use Condition 2]</p>
OPR-LU-02	<p>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 final Revegetation Plan referenced in Fish and Wildlife <u>Habitat</u> Condition 11.</p> <p>[Final Order on ASC, Land Use Condition 10]</p>
OPR-LU-03	<p>Before beginning decommissioning activities, the certificate holder must provide a copy of the final retirement plan to Morrow County and Umatilla County.</p> <p>[Final Order on ASC, Land Use Condition 23]</p>
OPR-LU-04	<p>Before beginning electrical production, the certificate holder shall prepare an Operating and Facility Maintenance Plan (Plan) and submit the Plan to the department for approval in consultation with Umatilla and Morrow Counties.</p> <p>[Final Order on ASC, Land Use Condition 25]</p>

OPR-LU-05	<p>Within 90 days of the commencement of electrical service from Wheatridge East, the certificate holder shall provide a summary of as-built changes to the department and Umatilla County. [Final Order on ASC, Land Use Condition 26]</p>
OPR-LU-06	<p>Prior to facility retirement, the certificate holder must include the following minimum restoration activities in the proposed final retirement plan it submits to the Council pursuant to OAR 345-027-0110 or its equivalent:</p> <ol style="list-style-type: none"> 1. Dismantle turbines, towers, pad mounted transformers, meteorological towers and related aboveground equipment, and remove concrete pads to a depth of at least three feet below the surface grade. 2. Remove underground collection and communication cables that are buried less than three feet in depth and are deemed by Council to be a hazard or a source of interference with surface resource uses. 3. Remove gravel from areas surrounding turbine pads. 4. Remove and restore private access roads unless the landowners directs otherwise. 5. Following removal of facility components, grade disturbed areas as close as reasonably possible to the original contours and restore soils to a condition compatible with farm uses or other resources uses. 6. Revegetate disturbed areas in consultation with the land owner and in a manner consistent with the final Revegetation Plan referenced in Fish and Wildlife Habitat Condition 11. 7. If the landowner wishes to retain certain facilities, provide a letter from the land owner that identifies the roads, cleared pads, fences, gates and other improvements to be retained and a commitment from the land owner to maintain the identified facilities for farm or other purposes permitted under the applicable zone. <p>[Final Order on ASC, Land Use Condition 27]</p>
<u>STANDARD: RETIREMENT AND FINANCIAL ASSURANCE (RT) [OAR 345-022-0050]</u>	
OPR-RF-01	<p><u>During facility operation, the certificate holder shall:</u></p> <p><u>(a) 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 submit copies of inspection documentation in its annual report to the Department.</u></p> <p><u>(b) Provide evidence in its annual report to the Department of active property coverage under its commercial business insurance from high loss-catastrophic events, including but not limited to, onsite fire or explosion.</u></p> <p>[Final Order on AMD2, Retirement and Financial Assurance Condition 6]</p>
<u>STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0110]</u>	
OPR-PS-01	<p>During operation of the facility, the certificate holder shall discharge sanitary wastewater generated at the O&M buildings to licensed on-site septic systems in compliance with State permit requirements. The certificate holder shall design each septic system for a discharge capacity of less than 2,500 gallons per day. [Final Order on ASC, Public Services Condition 1]</p>
OPR-PS-02	<p>Except as provided in this condition, during facility operation, the certificate holder shall obtain water for on-site uses from on-site wells located near the O&M buildings. 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 each of the two on-site wells. The certificate holder may obtain water from other sources for on-site uses subject to prior approval by the Department.</p>

	[Final Order on ASC, Public Services Condition 2]
GENOPR-PS-053	<p>(a) Prior to operation, During operation, the certificate holder shall <u>submit to the Department for approval its implement a Operational Wwaste Mmanagement Pplan that includes but is not limited to the following measures:</u></p> <ol style="list-style-type: none"> <u>1. Onsite handling procedure for operational replacement of damaged, defective or recalled lithium-ion batteries. The procedure shall identify applicable 49 CFR 173.185 provisions and address, at a minimum, onsite handling, packaging, interim storage, and segregation requirements.</u> 1-2. <u>Training employees to handle, replace, and store damaged, defective or recalled lithium-ion batteries; minimize and recycle solid waste.</u> 2-3. <u>Recycling paper products, metals, glass, and plastics.</u> 3-4. <u>Recycling used oil and hydraulic fluid.</u> 4-5. <u>Collecting non-recyclable waste for transport to a local landfill by a licensed waste hauler or by using facility equipment and personnel to haul the waste. Waste hauling by facility personnel within Morrow County shall be performed in compliance with the Morrow County Solid Waste Management Ordinance, <u>Section 5.000 Public Responsibilities and 5.030 Responsibility for Propose Disposal of Hazardous Waste</u> which requires that all loads be covered and secured.</u> 5-6. <u>Segregating all hazardous and universal, non-recyclable wastes such as used oil, oily rags and oil-absorbent materials, mercury-containing lights, <u>lithium-ion batteries,</u> and lead-acid and nickel-cadmium batteries, <u>and replaced, damaged, defective or recalled lithium-ion batteries</u> for disposal by a licensed firm specializing in the proper recycling or disposal of hazardous and universal wastes.</u> <p>(b) <u>During operation, the certificate holder shall implement the approved Operational Waste Management Plan.</u></p> <p>[Final Order on ASC, Public Services Condition 4; <u>Amended in Final Order on AMD2</u>]</p>
OPR-PS-04	<p>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 at the facility site.</p> <p>[Final Order on ASC, Public Services Condition 12]</p>
STANDARD: PUBLIC HEALTH AND SAFETY FOR WIND FACILITIES (WF) [OAR 345-024-0010]	
OPR-WF-01	<p>During operation, the certificate holder shall ensure each facility substation <u>and battery storage systems are is</u> enclosed with appropriate fencing and locked gates to protect the public from electrical hazards.</p> <p>[Final Order on ASC, Public Health and Safety Standards for Wind Facilities Condition 2; <u>Amended in Final Order on AMD2</u>]</p>

STANDARD: SITING STANDARDS FOR TRANSMISSION LINES (TL) [OAR 345-024-0090]

OPR-TL-01	<p>During operation, the certificate holder shall:</p> <ol style="list-style-type: none">(1) Update the OPUC Safety Staff as to how the operator will comply with OAR Chapter 860, Division 024 on an ongoing basis considering future operations, maintenance, emergency response, and alterations until facility retirement.(2) File the following required information with the Commission:<ol style="list-style-type: none">a. 758.013 Operator of electric power line to provide Public Utility Commission with safety information; availability of information to public utilities. (1) Each person who is subject to the Public Utility Commission’s authority under ORS 757.035 and who engages in the operation of an electric power line as described in ORS 757.035 must provide the commission with the following information before January 2 of each even-numbered year:<ol style="list-style-type: none">i. The name and contact information of the person that is responsible for the operation and maintenance of the electric power line, and for ensuring that the electric power line is safe, on an ongoing basis; andii. The name and contact information of the person who is responsible for responding to conditions that present an imminent threat to the safety of employees, customers and the public.iii. In the event that the contact information described in subsection (1) of this section changes or that ownership of the electric power line changes, the person who engages in the operation of the electric power line must notify the commission of the change as soon as practicable, but no later than within 90 days.iv. If the person described in subsection (1) of this section is not the public utility, as defined in ORS 757.005, in whose service territory the electric power line is located, the commission shall make the information provided to the commission under subsection (1) of this section available to the public utility in whose service territory the electric power line is located. [2013 c.235 §3](3) Provide OPUC Safety Staff with:<ol style="list-style-type: none">a. Maps and Drawings of routes and installation of electrical supply lines showing:<ul style="list-style-type: none">• Transmission lines and structures (over 50,000 Volts)• Distribution lines and structures - differentiating underground and overhead lines (over 600 Volts to 50,000 Volts)• Substations, roads and highways• Plan and profile drawings of the transmission lines (and name and contact information of responsible professional engineer). <p>[Final Order on ASC, Siting Standard Condition 3]</p>
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STANDARD: NOISE CONTROL REGULATION (NC) [OAR 345-035-0035]

OPR-NC-01	<p>During operation of the facility, the certificate holder shall only operate the facility in the NRO mode that is identified prior to construction pursuant to Noise Control Condition 2. After beginning operation of the facility, the certificate holder shall include a certification in its annual Compliance Report that the NRO mode turbines identified in the preconstruction analysis required by Noise Control Condition 2 are operating at or below the identified dBA reduction level.</p> <p>[Final Order on ASC, Noise Control Condition 3]</p>
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OPR-NC-02	<p>During operation, the certificate holder shall maintain a complaint response system to address noise complaints. The certificate holder shall notify the department within two working days of receiving a noise complaint related to the facility. The notification should include, but is not limited to, the date the certificate holder received the complaint, the nature of the complaint, the complainant’s contact information, the location of the affected property, and any actions taken, or planned to be taken, by the certificate holder to address the complaint.</p> <p>[Final Order on ASC, Noise Control Condition 4]</p>
OPR-NC-03	<p>During operation, in response to a complaint from the owner of a noise sensitive property regarding noise levels from 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 in compliance with the noise control regulations. The monitoring plan must be reviewed and approved by the department prior to implementation. The cost of such monitoring, if required, shall be borne by the certificate holder.</p> <p>[Final Order Noise Control Condition 5]</p>

4.7 Retirement Conditions (RET)

Condition Number	Retirement (RET) Conditions
STANDARD: RETIREMENT AND FINANCIAL ASSURANCE (RT) [OAR 345-022-0050]	
RET-RF-01	<p>The certificate holder must retire the facility in accordance with a retirement plan approved by the Council if the certificate holder permanently ceases construction or operation of the facility. The retirement plan must describe the activities necessary to restore the site to a useful, nonhazardous condition, as described in OAR 345-027-0110(5). After Council approval of the plan, the certificate holder must obtain the necessary authorization from the appropriate regulatory agencies to proceed with restoration of the site.</p> <p>[Final Order Retirement and Financial Assurance Condition 2] [Mandatory Condition OAR 345-027-0020(9)]</p>
RET-RF-02	<p>The certificate holder is obligated to retire the facility upon permanent cessation of construction or operation. 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 must 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.</p> <p>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) <u>section (8)</u> to restore the site to a useful, nonhazardous 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 must pay any additional cost necessary to restore the site to a useful, nonhazardous condition. After completion of site restoration, the Council must 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.</p> <p>[Final Order Retirement and Financial Assurance Condition 3] [Mandatory Condition OAR 345-027-0020-025-0006(16)]</p>

5.0 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.

6.0 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.

7.0 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 THEREOF, this site certificate has been executed by the State of Oregon, acting by and through the Energy Facility Siting Council, and by Wheatridge Wind Energy, LLC.

ENERGY FACILITY SITING COUNCIL

WHEATRIDGE WIND ENERGY, LLC

By: _____

By: _____

Barry Beyeler, Chair

John DiDonato, Vice President
Development, NextEra Energy Resources,
LLC on behalf of Wheatridge Wind Energy,
LLC

Oregon Energy Facility Siting Council

Date: _____

Date: _____

Attachment A
Facility Site Boundary Map
(Figure 1)

Wheatridge Wind Energy



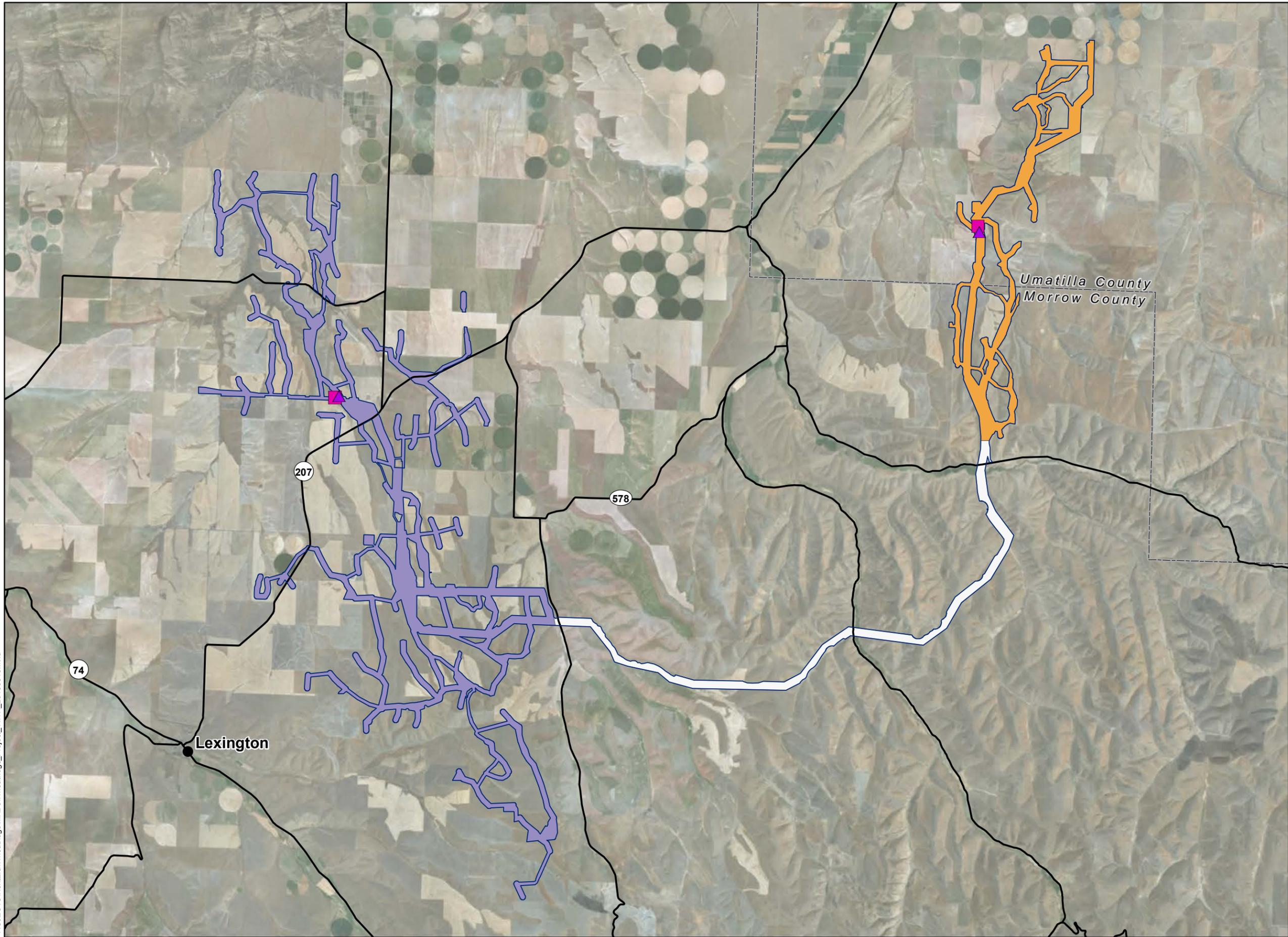
Figure 1 Site Boundary and Energy Storage Sites

MORROW AND UMATILLA COUNTIES, OR

- EFSC Site Boundary
- Wheatridge East
- Intraconnection Line Corridor
- Wheatridge West
- Substation
- Proposed Energy Storage
- City/Town
- County Boundary
- Secondary Road



Reference Map



P:\GIS_PROJECTS\NextEra\Wheatridge\MXD\Wheatridge_Project_11171_20180518.mxd



1:130,000 WGS 1984 UTM Zone 11N

0 0.5 1 2 3 4 Miles

Attachment B: Reviewing Agency Comments on preliminary Request for Amendment 2

ESTERSON Sarah * ODOE

From: CAINES Jeff <Jeff.CAINES@aviation.state.or.us>
Sent: Wednesday, June 20, 2018 4:40 PM
To: ESTERSON Sarah * ODOE
Cc: WOODS Maxwell * ODOE; Sandra Pointer (Lexington Airport)
Subject: RE: Wheatridge Wind Energy Facility - Preliminary Request for Amendment 2 of Site Certificate - Proposed Larger Turbines - Request for ODA Review/Comment

Sarah:

Thank you for allowing ODA to comment on the proposed changes to the Wheatridge Wind Energy Facility.

It is my understanding that the Wheatridge project removed approximately 4-5 proposed turbines that could have an effect on the Lexington airport. I have contacted the airport sponsor and did confirm that turbines were removed and that there would be no adverse impacts to the Lexington airport.

ODA does not regulate private use airports, i.e., West Buttercreek airport, in the same manner as Lexington. However, I understand that the West Buttercreek airport is approximately 4 miles away from the proposed energy site, therefore this project should not pose an impact to the operational use of the airport.

Any planes flying in the area for agricultural use (i.e., crop dusting) should be aware that turbines are in the area and needs to work with the land owner(s) to identify the location of the proposed structures.

ODA would request that the applicant submit updated FAA forms 7460-1 if the determinations are older than 18 months, as specified by 14 CFR Part 77. ODA will defer to the FAA for their determination since the structures are over 200 feet in height, knowing that no impact to the Lexington airport will take place.

Thank you again for allowing ODA to comment. Please feel free to contact me if you or the applicant have any questions.

Jeff

JEFF CAINES, AICP
OREGON DEPARTMENT OF AVIATION
AVIATION PLANNER / SCIP COORDINATOR



OFFICE 503-378-2529
CELL/TEXT 503-507-6965

EMAIL jeff.caines@aviation.state.or.us
WEBSITE www.oregon.gov/aviation

3040 25th Street SE, Salem, OR 97302

From: ESTERSON Sarah * ODOE [mailto:Sarah.Esterson@oregon.gov]
Sent: Friday, June 15, 2018 12:17 PM
To: CAINES Jeff
Cc: WOODS Maxwell * ODOE
Subject: Wheatridge Wind Energy Facility - Preliminary Request for Amendment 2 of Site Certificate - Proposed Larger Turbines - Request for ODA Review/Comment

Jeff,

This email is to inform the Oregon Department of Aviation of the Oregon Department of Energy's receipt of the preliminary Request for Amendment 2 (pAMD2) for the Wheatridge Wind Energy Facility Site Certificate. The Wheatridge Wind Energy Facility is an approved but not yet constructed wind energy facility, to be located in Morrow and Umatilla counties, with up to 292 wind turbines and a maximum capacity of 500 megawatts..

The pAMD2 requests Council approval to construct and operate larger wind turbines and two battery storage systems.

The proposed larger wind turbines would change the previously approved turbine dimensions including: increase turbine hub height (278 to 291.3 feet), increase maximum blade tip height (476 to 499.7 feet), increase maximum blade length (197 to 204.1 feet), lower the minimum ground clearance (83 to 70.5 feet), and increase rotor diameter (393 to 416.7 feet).

The proposed battery storage systems would consist of lithium-ion batteries contained in a building or series of modular containers and would include approximately 18 inverters and associated step-up transformers, as well as interconnecting facilities (control house, protective device and power transformer). The proposed battery storage systems may include ground-level cooling equipment, power conditioning systems, distribution and auxiliary transformers. The proposed battery storage systems would be located adjacent to the previously approved substation and operation and maintenance building sites and would each result in up to 5 acres of new permanent disturbance. One of these sites would be located within Umatilla County.

The Department has already requested additional information from the certificate holder, and the certificate has provided responses specific to the proposed larger turbines. Specifically, please see the information request and response below:

A. Response to RAI-25.

Public Health and Safety Standards for Wind Energy Facilities does not address whether or how the increase in total maximum blade tip length from 476 to 499.7-ft could impact the certificate holder's ability to design, construct and operate the turbines to exclude members of the public, specifically users of airspace associated with Lexington and West Buttercreek airports and private airstrips from close proximity to turbine blades. Describe the potential impacts and identify how those impacts would not impact the certificate holders' ability to operate the facility in a manner that would exclude members of the public from close proximity to turbine blades.

Response: Because the turbines are greater than 200 feet in height, the certificate holder is required to submit a Notice of Proposed Construction or Alteration form (known as FAA Form 7460-1) to both the Federal Aviation Administration (FAA) and the Oregon Department of Aviation (ODA), in order for the FAA and ODA to assess potential hazards to air safety and air navigation. In 2016, the FAA determined that the turbines proposed at that time, at a height of 499 feet about ground level, were in compliance with federal aviation safety standards and subsequently issued favorable Determinations of No Hazard to Air Navigation. Subsequent to that determination, Wheatridge micro-sited 63 turbines, resulting in the need for new aeronautical studies. Per Public Services Condition No. 9, the certificate holder will secure new aeronautical studies for these new locations. Although the certificate holder does not anticipate any issues, should the FAA find that the impact of one or more of these turbines exceeds an acceptable threshold of impact, mitigation options are available and will be implemented.

My questions are:

- Should we request that the certificate holder describe both the acceptable threshold of impact and potential mitigation options?
- The certificate holder references Determinations of No Hazard for 499' turbines.
 - o Does ODA have these on file?

- Would a new 7460 evaluation be needed for a 499.7' turbine, or just those that represent a new location?

Let me know if you have availability next week to discuss.

Thanks,
Sarah

Sarah T. Esterson

Energy Facility Siting Analyst
Oregon Department of Energy
550 Capitol St NE, 1st Floor
Salem, OR 97301
P:(503) 373-7945
C: (503) 385-6128

Oregon.gov/energy



From: Marshall, Jesse [mailto:JESSE.MARSHALL@nexteraenergy.com]

Sent: Monday, June 11, 2018 4:02 PM

To: ESTERSON Sarah * ODOE <Sarah.Esterson@oregon.gov>

Cc: Castro, Scott <Scott.Castro@nexteraenergy.com>; Carrie Konkol (carrie.konkol@tetrattech.com) <carrie.konkol@tetrattech.com>; Curtiss, Sarah Stauffer (sarah.curtiss@stoel.com) <sarah.curtiss@stoel.com>; Filippi, David (david.filippi@stoel.com) <david.filippi@stoel.com>; Solsby, Anneke (Anneke.Solsby@tetrattech.com) <Anneke.Solsby@tetrattech.com>; WOODS Maxwell * ODOE <Maxwell.Woods@oregon.gov>; RATCLIFFE Jesse D <Jesse.D.RATCLIFFE@state.or.us>; CORNETT Todd * ODOE <Todd.Cornett@oregon.gov>; ROWE Patrick G <Patrick.G.ROWE@state.or.us>; Pappalardo, Mike <MIKE.PAPPALARDO@nexteraenergy.com>

Subject: RE: Department Response to Wheatridge Wind Energy, LLC's Amendment Determination Request and pRFA2 Determination and RAIs

Ms. Esterson:

Thank you for forwarding along the Oregon Department of Energy's ("Department") Determination on Wheatridge Wind Energy, LLC's ("Wheatridge") Amendment Determination Request, as well as the Department's requests for additional information ("RAIs") on Request for Amendment 2 ("RFA2"). This is to confirm receipt of those materials. As requested, the Wheatridge team will assemble the information requested in the RAIs and submit to the Department by June 29, 2018.

In addition, in light of the RAIs and given that the Department is still re-evaluating whether Type B review is the appropriate procedural process for RFA2, we wanted to provide clarification on several issues that may inform the Department's determination on the appropriate review path. Specifically, given that there are only a few RAIs related to modified range of turbine specifications, we are providing advance responses on those RAIs. (Note that we will include these in the full RAI response table later this month).

Although we continue to believe that the Type B review process is appropriate for both the modified range of turbine specifications and the addition of battery storage for the reasons outlined in our May 18, 2018 submittal, we request that you make separate review path determinations on each proposed change. That way, Wheatridge may evaluate whether it would be advantageous to separate the proposed modifications into two separate requests for amendment.

A. Responses to RAI-5.

Confirm whether larger cranes would be needed during wind turbine installation. If larger cranes would be needed, confirm whether a wider crane path would be needed than was previously evaluated (at 39 feet).

Response: Larger cranes will not be needed during wind turbine installation. Cranes will operate within the crane path that was previously evaluated.

Confirm whether larger cranes would be needed during routine operations and maintenance activities, such as blade repair and blade replacement, and whether the previously evaluated permanent turbine pad impact area (65-ft diameter circle) would continue to provide adequate space for the necessary equipment.

Response: Larger cranes will not be needed during routine operations and maintenance activities. The previously evaluated permanent turbine pad impact area will continue to provide adequate space for the necessary equipment.

Describe frequency of anticipated routine operations and maintenance (O&M) activities, such as blade repair or replacement, and whether this differs from the frequency of O&M activities associated with the previously evaluated turbines.

Response: The frequency of anticipated routine operations and maintenance activities, such as blade repair or replacement, will remain the same as those associated with the previously evaluated turbines.

Evaluate whether the previously provided construction schedule (ASC Exhibit B: 18-month duration, phased) continues to represent the construction schedule for the proposed larger turbines and battery storage systems.

Response: The previously provided construction schedule continues to represent the construction schedule for the proposed larger turbines and battery storage systems.

Describe whether the previously evaluated peak number of workers needed during construction would continue to represent a worst-case scenario related to impacts to public services.

Response: The previously evaluated peak number of workers needed during construction will continue to represent a worst-case scenario related to impacts to public services.

B. Response to RAI-24.

Public Health and Safety Standards for Wind Energy Facilities does not address whether or how the lowering of the wind turbine minimum blade tip clearance could impact the certificate holder's ability to design, construct and operate the turbines to exclude members of the public from close proximity to the turbine blades. Describe the potential impacts to public health and safety from lowering of the minimum blade tip clearance; describe how the certificate holder would continue to be able to operate the facility to exclude members of the public from close proximity to blades; and, identify whether any new or amended conditions are necessary to satisfy the standard.

Response: The lowering of the wind turbine minimum blade tip clearance will not impact the certificate holder's ability to design, construct and operate the turbines to exclude members of the public from close proximity to the turbine blades. As outlined in the Final Order, (1) the facility is located entirely on private property which will restrict public access to turbine and other facility component locations; (2) access roads improved or developed for proposed facility construction and operation will be gated or locked, when not actively in use, to limit accessibility; and (3) pad-mounted step-up transformers will be enclosed in steel boxes. In addition, substations and the proposed battery storage area will be within fenced and locked areas, and all turbine towers will be located within the minimum safety setbacks of 110 percent of the maximum blade tip height from public roads, and 100 percent from non-participating landowners. With these measures in place, no new or amended conditions are necessary to ensure that the certificate holder can design,

construct and operate the facility to exclude members of the public from close proximity to the turbine blades and electrical equipment

C. Response to RAI-25.

Public Health and Safety Standards for Wind Energy Facilities does not address whether or how the increase in total maximum blade tip length from 476 to 499.7-ft could impact the certificate holder's ability to design, construct and operate the turbines to exclude members of the public, specifically users of airspace associated with Lexington and West Buttercreek airports and private airstrips from close proximity to turbine blades. Describe the potential impacts and identify how those impacts would not impact the certificate holders' ability to operate the facility in a manner that would exclude members of the public from close proximity to turbine blades.

Response: Because the turbines are greater than 200 feet in height, the certificate holder is required to submit a Notice of Proposed Construction or Alteration form (known as FAA Form 7460-1) to both the Federal Aviation Administration (FAA) and the Oregon Department of Aviation (ODA), in order for the FAA and ODA to assess potential hazards to air safety and air navigation. In 2016, the FAA determined that the turbines proposed at that time, at a height of 499 feet about ground level, were in compliance with federal aviation safety standards and subsequently issued favorable Determinations of No Hazard to Air Navigation. Subsequent to that determination, Wheatridge micro-sited 63 turbines, resulting in the need for new aeronautical studies. Per Public Services Condition No. 9, the certificate holder will secure new aeronautical studies for these new locations. Although the certificate holder does not anticipate any issues, should the FAA find that the impact of one or more of these turbines exceeds an acceptable threshold of impact, mitigation options are available and will be implemented.

Thank you for your review of these advance responses.

Sincerely,
Jesse Marshall

Jesse Marshall
NextEra Energy Resources
Project Director
(760) 846-4421
jesse.marshall@nee.com

From: ESTERSON Sarah * ODOE [<mailto:Sarah.Esterson@oregon.gov>]

Sent: Friday, June 08, 2018 1:50 PM

To: Pappalardo, Mike

Cc: Marshall, Jesse; Castro, Scott; Carrie Konkol (carrie.konkol@tetrattech.com); Curtiss, Sarah Stauffer (sarah.curtiss@stoel.com); Filippi, David (david.filippi@stoel.com); Solsby, Anneke (Anneke.Solsby@tetrattech.com); WOODS Maxwell * ODOE; RATCLIFFE Jesse D; CORNETT Todd * ODOE; ROWE Patrick G

Subject: Department Response to Wheatridge Wind Energy, LLC's Amendment Determination Request and pRFA2 Determination and RAIs

CAUTION - EXTERNAL EMAIL

Mike,

Per our discussion, please find the attached two Department determinations:

- ODOE ADR Determination: Department determines site certificate amendment is required for the proposed facility modifications based on evaluation of OAR 345-027-0050(4) criteria.
- Determination Letter and RAIs: Department determines preliminary Request for Amendment 2 (pRFA2) incomplete and requests additional information (RAI) to support the evaluation of compliance with Council

standards and evaluation of new or amended conditions. (Note: Word Version of RAI table provided for ease of review/response).

If requested, NextEra may refer the Department's amendment determination to Council for concurrence, modification or rejection. In order to be included on the June 29, 2018 Council agenda, please let us know by June 12, 2018 if NextEra chooses to refer the Department amendment determination to Council.

In addition, please provide responses to the pRFA2 request for additional information by June 29, 2018. Please let us know if additional time is needed to respond.

The Department intends to provide its determination on the re-evaluation of the Type B review ADR next week.

Please do not hesitate to contact myself, Todd or Max with questions or comments.

Thanks,
Sarah

Sarah T. Esterson

Energy Facility Siting Analyst
Oregon Department of Energy
550 Capitol St NE, 1st Floor
Salem, OR 97301
P:(503) 373-7945
C: (503) 385-6128

Oregon.gov/energy



From: Pappalardo, Mike [<mailto:MIKE.PAPPALARDO@nexteraenergy.com>]

Sent: Friday, May 18, 2018 3:30 PM

To: ESTERSON Sarah * ODOE <Sarah.Esterson@oregon.gov>

Cc: Marshall, Jesse <JESSE.MARSHALL@nexteraenergy.com>; Castro, Scott <Scott.Castro@nexteraenergy.com>; Carrie Konkol (carrie.konkol@tetrattech.com) <carrie.konkol@tetrattech.com>; Curtiss, Sarah Stauffer (sarah.curtiss@stoel.com) <sarah.curtiss@stoel.com>; Filippi, David (david.filippi@stoel.com) <david.filippi@stoel.com>; Solsby, Anneke (Anneke.Solsby@tetrattech.com) <Anneke.Solsby@tetrattech.com>; WOODS Maxwell * ODOE <Maxwell.Woods@oregon.gov>; RATCLIFFE Jesse D <Jesse.D.RATCLIFFE@state.or.us>; CORNETT Todd * ODOE <Todd.Cornett@oregon.gov>

Subject: Submittal of RFA 2 for Wheatridge Wind Energy Facility, and Request for Reconsideration for the Wheatridge Wind Energy, LLC's Amendment Determination Request

Dear Ms. Esterson:

Attached please find a second Request for Amendment ("RFA 2") for the Wheatridge Wind Energy, LLC ("Wheatridge"), Wheatridge Wind Energy Facility ("Project"). In RFA 2, Wheatridge seeks concurrence on a modified range of turbine specifications for use at the Project. In addition, Wheatridge seeks to add energy storage as a related and supporting facility. With this submittal, we are also formally requesting that the Oregon Department of Energy ("Department") reevaluate its April 25, 2018 determination ("Department Response") that RFA 2 should be subject to the Department's Type A amendment review process.

Please feel free to contact me at any time if you have any questions or concerns regarding this submittal.

Sincerely,

Mike Pappalardo | [Environmental Manager](#)

[NextEra Energy Resources](#) | 3256 Wintercreek Drive | Eugene, OR 97405

office: 541.302.1345 | cell: 541.206.1005 | email: mike.pappalardo@nexteraenergy.com



ESTERSON Sarah * ODOE

From: Steve Cherry <Steve.P.Cherry@state.or.us>
Sent: Friday, June 22, 2018 9:25 AM
To: ESTERSON Sarah * ODOE; REIF Sarah J; CHERRY Steve P
Cc: WOODS Maxwell * ODOE
Subject: RE: Wheatridge Wind Energy Facility - Preliminary Request for Amendment 2 of Site Certificate - ODFW Review Request

Sarah,

ODFW does not have any concerns about the current monitoring plan's effectiveness to determine mortality for this project with the proposed change in turbine size. The only comment I would make is that the mitigation and reveg plans need to be updated to include the permanent and temporary impacts from the change in the layout (i.e. battery storage systems, and potential for change in turbine layout due to turbine size). Please let me know if you have any more questions.

Steve

From: ESTERSON Sarah * ODOE [mailto:Sarah.Esterson@oregon.gov]
Sent: Friday, June 15, 2018 11:24 AM
To: REIF Sarah J; CHERRY Steve P
Cc: WOODS Maxwell * ODOE
Subject: Wheatridge Wind Energy Facility - Preliminary Request for Amendment 2 of Site Certificate - ODFW Review Request

Sarah and Steve,

On May 18, 2018, the Oregon Department of Energy received preliminary Request for Amendment 2 (pAMD5) for the Wheatridge Wind Energy Facility Site Certificate (link provided below). The Wheatridge Wind Energy Facility is an approved but not yet constructed wind energy facility, to be located in Morrow and Umatilla counties, with up to 292 wind turbines and a maximum capacity of 500 megawatts..

The pAMD2 requests Council approval to construct and operate larger wind turbines and two battery storage systems.

The proposed larger wind turbines would change the previously approved turbine dimensions including: increase turbine hub height (278 to 291.3 feet), increase maximum blade tip height (476 to 499.7 feet), increase maximum blade length (197 to 204.1 feet), lower the minimum ground clearance (83 to 70.5 feet), and increase rotor diameter (393 to 416.7 feet).

The proposed battery storage systems would consist of lithium-ion batteries contained in a building or series of modular containers and would include approximately 18 inverters and associated step-up transformers, as well as interconnecting facilities (control house, protective device and power transformer). The proposed battery storage systems may include ground-level cooling equipment, power conditioning systems, distribution and auxiliary transformers. The proposed battery storage systems would be located adjacent to the previously approved substation and operation and maintenance building sites and would each result in up to 5 acres of new permanent disturbance.

We would like to request ODFW review and comment on the amendment request by **June 29, 2018**. In particular, we have the following question:

- Does ODFW consider the fatality monitoring program sufficient (i.e. sample size of 50 turbines) to monitor/mitigate for potential bird/bat species during operation of the proposed larger turbines?

The amendment request is attached for reference, along with the WMMP as reviewed/approved in draft format during the application process.

Let me know if you have questions and whether the June 29, 2019 review timeline is feasible.

Thanks,
Sarah

Sarah T. Esterson

Energy Facility Siting Analyst
Oregon Department of Energy
550 Capitol St NE, 1st Floor
Salem, OR 97301
P:(503) 373-7945
C: (503) 385-6128

Oregon.gov/energy



ESTERSON Sarah * ODOE

From: Carla McLane <cmclane@co.morrow.or.us>
Sent: Monday, July 2, 2018 10:45 AM
To: ESTERSON Sarah * ODOE
Cc: RUSSELL Don; Jim Doherty; Melissa Lindsay; WOODS Maxwell * ODOE; Darrell Green; 'Marshall, Jesse'; Sandra Pointer
Subject: RE: Wheatridge Wind Energy Facility - Preliminary Request for Amendment 2 of Site Certificate - Special Advisory Group Review Request by July 6, 2018
Attachments: RFA2 Comment letter 07022018 signed.pdf

Sarah,
Attached please find our comment letter for the WRW pAMD2.
Let me know if you have any questions or follow up.

Have a great 4th of July!
Carla

From: ESTERSON Sarah * ODOE [mailto:Sarah.Esterson@oregon.gov]
Sent: Friday, June 15, 2018 11:44 AM
To: Carla McLane <cmclane@co.morrow.or.us>
Cc: Don Russell <drussell@co.morrow.or.us>; Jim Doherty <jdoherty@co.morrow.or.us>; Melissa Lindsay <mlindsay@co.morrow.or.us>; WOODS Maxwell * ODOE <Maxwell.Woods@oregon.gov>
Subject: Wheatridge Wind Energy Facility - Preliminary Request for Amendment 2 of Site Certificate - Special Advisory Group Review Request by July 6, 2018

Carla and Morrow County Board of Commissioners,

This email is to inform the Morrow County Planning Department and Morrow County Board of Commissioners of the Oregon Department of Energy's receipt of the preliminary Request for Amendment 2 (pAMD2) for the Wheatridge Wind Energy Facility Site Certificate. The Wheatridge Wind Energy Facility is an approved but not yet constructed wind energy facility, to be located in Morrow and Umatilla counties, with up to 292 wind turbines and a maximum capacity of 500 megawatts..

The pAMD2 requests Council approval to construct and operate larger wind turbines and two battery storage systems.

The proposed larger wind turbines would change the previously approved turbine dimensions including: increase turbine hub height (278 to 291.3 feet), increase maximum blade tip height (476 to 499.7 feet), increase maximum blade length (197 to 204.1 feet), lower the minimum ground clearance (83 to 70.5 feet), and increase rotor diameter (393 to 416.7 feet).

The proposed battery storage systems would consist of lithium-ion batteries contained in a building or series of modular containers and would include approximately 18 inverters and associated step-up transformers, as well as interconnecting facilities (control house, protective device and power transformer). The proposed battery storage systems may include ground-level cooling equipment, power conditioning systems, distribution and auxiliary transformers. The proposed battery storage systems would be located adjacent to the previously approved substation and operation and maintenance building sites and would each result in up to 5 acres of new permanent disturbance. One of these sites would be located within Morrow County.

We would like to request your review and comment on the amendment request by **July 6, 2018**. In particular, we have the following questions:

- Has the county adopted any changes to county code provisions (e.g. setback requirements, etc) that could apply to the proposed larger turbines?
- The Department has already completed initial consultation with Carla regarding applicability of the County's Solid Waste Management Ordinance and Solid Waste Management Program for solid waste management during operation of the proposed battery storage systems. Please confirm whether the above-provided description, as obtained from the amendment request, would trigger applicability of any other county code provisions that necessarily should be evaluated through the site certificate amendment process.

The amendment request is attached for reference.

Let me know if you have questions and whether the July 6, 2019 review timeline is feasible.

Thanks,
Sarah

Sarah T. Esterson
Energy Facility Siting Analyst
Oregon Department of Energy
550 Capitol St NE, 1st Floor
Salem, OR 97301
P:(503) 373-7945
C: (503) 385-6128

Oregon.gov/energy





PLANNING DEPARTMENT

P. O. Box 40 • Irrigon, Oregon 97844
(541) 922-4624 or (541) 676-9061 x 5503
FAX: (541) 922-3472

July 2, 2018

Sarah Esterson, Energy Facility Siting Analyst
Oregon Department of Energy
550 Capitol Street NE, 1st Floor
Salem, OR 97301

RE: Wheatridge Wind Energy Facility - Request for Amendment 2

Dear Ms. Esterson:

The following comments are on behalf of the Morrow County Board of Commissioners serving as a Special Advisory Group for this project. The purpose of this letter is to address the preliminary Request for Amendment 2 (pAMD2) and more specifically to address the questions posed in your June 15, 2018, email to myself.

Since the original application by the developers of the Wheatridge Wind Energy Facility was submitted, Morrow County has updated portions of our Zoning Ordinance. The portion applicable to this action is the Exclusive Farm Use (EFU) zone. The Morrow County update brought the EFU zone into compliance with both Oregon Revised Statute and Oregon Administrative Rule, incorporating the required standards for development of wind energy facilities. There is nothing in the Morrow County update of our EFU zone that should affect or impact the Energy Facility Siting Council decision or be applicable to the pAMD2.

As to the discussion we previously had concerning the applicability of the Morrow County Solid Waste Management Plan and Ordinance I would find it to still be applicable, but would not find that it should unduly hold up the amendment process. Our previously submitted and included Solid Waste Management Ordinance provisions are still applicable, including Section 5.000 Public Responsibilities 5.030 Responsibility for Proper Disposal of Hazardous Waste. Those are analyzed in Exhibit V Solid Waste and Waste Water, specifically on page 6. There is also discussion of hazardous waste in Exhibit G Materials Analysis. Within the pAMD2 the applicant has placed the discussion concerning the battery storage relative to waste within the Waste Minimization standard, which Morrow County would agree is appropriate. In reviewing those portions of the original application and the pAMD2 Morrow County would find that the Oregon Department of Energy (ODOE) review and Energy Facility Siting Council (EFSC) imposed Conditions found in the Final Order under Waste Minimization address solid and hazardous wastes appropriately. As part of the Waste Minimization discussion within the Final Order ODOE staff state the following, "The applicant stated that any hazardous waste generated during construction *or operation* of the facility would be removed, transported, and disposed by a qualified and licensed contractor. No hazardous solid wastes shall be dumped, deposited, buried, or otherwise disposed on or under the ground at the facility." Morrow County would find this statement satisfactory when coupled with the statements and assertions found within both the original application and the pAMD2.

Wheatridge Wind Energy Facility
Request for Amendment 2

Page 1 of 2

Thanks again for the opportunity to comment to the Wheatridge Wind Energy Facility Request for Amendment 2. It has been a pleasure working with you and other Department staff to date, and I anticipate that will continue. Should you have any questions about this comment letter, previous comment letters, or need additional information, please do not hesitate to contact me.

Cordially,

A handwritten signature in cursive script, appearing to read 'Carla McLane', written in black ink.

Carla McLane
Planning Director

cc: Jesse Marshall
Morrow County Board of Commissioners
Sandra Pointer, Morrow County Public Works

ESTERSON Sarah * ODOE

From: Robert Waldher <robert.waldher@umatillacounty.net>
Sent: Tuesday, July 3, 2018 4:32 PM
To: ESTERSON Sarah * ODOE
Cc: GIVENS Larry; George Murdock; ELFERING Bill; WOODS Maxwell * ODOE
Subject: Re: Wheatridge Wind Energy Facility - Preliminary Request for Amendment 2 of Site Certificate - Special Advisory Group Review Request by July 6, 2018
Attachments: image001.jpg

Hello Sarah - Thank you for the inquiry regarding the Wheatridge amendment.

Here is a response to your questions...

1. Our Development Code provisions have not changed beyond what was considered in the original Wheatridge application. We would process a battery storage system similar to how we would permit a substation on EFU...Utility Facility Necessary for Public Service.
2. I have reviewed other County ordinances and I am not aware of additional ordinances that would apply.

Thank you for explaining to me a little more about the battery storage facilities. I am guessing we will see more of these as more renewable projects come online. Please let me know if you have additional questions or comments. Thank you!

Bob

On Fri, Jun 15, 2018 at 11:50 AM ESTERSON Sarah * ODOE <Sarah.Esterson@oregon.gov> wrote:

Bob and Umatilla County Board of Commissioners,

This email is to inform the Umatilla County Planning Department and Umatilla County Board of Commissioners of the Oregon Department of Energy's receipt of the preliminary Request for Amendment 2 (pAMD2) for the Wheatridge Wind Energy Facility Site Certificate. The Wheatridge Wind Energy Facility is an approved but not yet constructed wind energy facility, to be located in Morrow and Umatilla counties, with up to 292 wind turbines and a maximum capacity of 500 megawatts..

The pAMD2 requests Council approval to construct and operate larger wind turbines and two battery storage systems.

The proposed larger wind turbines would change the previously approved turbine dimensions including: increase turbine hub height (278 to 291.3 feet), increase maximum blade tip height (476 to 499.7 feet), increase maximum blade length (197 to 204.1 feet), lower the minimum ground clearance (83 to 70.5 feet), and increase rotor diameter (393 to 416.7 feet).

The proposed battery storage systems would consist of lithium-ion batteries contained in a building or series of modular containers and would include approximately 18 inverters and associated step-up transformers, as well as interconnecting facilities (control house, protective device and power transformer). The proposed battery storage systems may include ground-level cooling equipment, power conditioning systems, distribution and auxiliary transformers. The proposed battery storage systems would be located adjacent to the previously approved substation and operation and maintenance building sites and would each result in up to 5 acres of new permanent disturbance. One of these sites would be located within Umatilla County.

We would like to request your review and comment on the amendment request by **July 6, 2018**. In particular, we have the following questions:

- Has the county adopted any changes to county code provisions (e.g. setback requirements, etc) that could apply to the proposed larger turbines?
- Please confirm whether the above-provided description of the proposed battery storage systems, as obtained from the amendment request, would trigger applicability of any county code provisions (e.g. hazardous waste/materials management, fire safety, etc) that necessarily should be evaluated through the site certificate amendment process.

The amendment request is attached for reference.

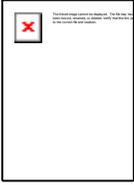
Let me know if you have questions and whether the July 6, 2019 review timeline is feasible.

Thanks,

Sarah

Sarah T. Esterson
Energy Facility Siting Analyst
Oregon Department of Energy
550 Capitol St NE, 1st Floor
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Oregon.gov/energy



--

Bob Waldher, RLA

Director

Umatilla County Department of Land Use Planning

216 SE 4th ST | Pendleton, OR 97801

Phone: [541-278-6251](tel:541-278-6251) | Fax: [541-278-5480](tel:541-278-5480)

<http://www.umatillacounty.net/planning> - Visit our website for copies of planning documents, permit applications and other helpful information.

Please Be Aware - Documents such as emails, letters, maps, reports, etc. sent from or received by the Umatilla County Department of Land Use Planning are subject to Oregon Public Records law and are NOT CONFIDENTIAL. All such documents are available to the public upon request; costs for copies may be collected. This includes materials that may contain sensitive data or other information, and Umatilla County will not be held liable for its distribution.

Attachment C: [Reserved for Draft Proposed Order Comments/Index]

Attachment D: Draft Habitat Mitigation Plan

Wheatridge Wind Energy Project

Habitat Mitigation Plan (Draft Concepts)

Prepared for:

Wheatridge Wind Energy, LLC
245 W. Main Street, Suite 200
Ione, Oregon 97843

Prepared by:

Rick Gerhardt

Northwest Wildlife Consultants, Inc.
815 NW 4th St.
Pendleton, Oregon 97801



April 2015

I. Introduction

This document has been prepared for the Wheatridge Wind Energy Project (Project) Site Certificate Application (SCA) submitted to the Oregon Department of Energy (ODOE). It provides primary concepts for meeting Project development habitat mitigation needs and will be finalized into a formal Habitat Mitigation Plan (HMP). The proposed concepts were discussed with personnel from the Oregon Department of Fish and Wildlife (ODFW) on August 20, 2012 and on July 11, 2014.

The Wheatridge Wind Energy Project is located in Morrow and Umatilla Counties, Oregon. As part of the SCA (Exhibits P and Q), Northwest Wildlife Consultants, Inc. (NWC) completed habitat mapping and quality assessment of the Project area, and conducted site-specific biological studies that included rare plant surveys, avian use surveys, special status vertebrate wildlife species surveys, golden eagle and other raptor nest surveys, an inventory of bat species, and big game observations, as well as reviews for potential occurrence of or records of special status species. No wetlands, perennial streams or other aquatic habitats are addressed in this document because at the time of preparation (August 2014) no facilities are planned for these habitat types. Project impact estimates were provided by Wheatridge Wind Energy, LLC and their SCA contractor, Tetra Tech. Based on a combination of the results of the multi-year biological studies, experience with such mitigation, and knowledge of the wildlife and habitats impacted by wind and natural gas energy development in the Columbia Plateau since 1992, NWC offers the concepts in this document as recommendations for inclusion in the Project's final Habitat Mitigation Plan. Details on habitat types, subtypes, and Categories 1–6 can be found in the SCA, Exhibit P and in the Wheatridge ecological investigations report (Gerhardt and Anderson, 2014). The Applicant is reducing and eliminating the impact of the proposed Project over time by preserving and maintaining in-kind habitat in the Columbia Basin ecoregion to achieve a net benefit to Category 2 habitat and no net loss of Category 3, and 4, Details are discussed in this document.

II. Description of Project Impacts Addressed by the Plan

As presently designed (as of November 13, 2014), the Wheatridge Wind Energy Facility (Project) will be constructed within a landscape of approximately 13,100 acres of privately-owned land and will have a generating capacity of up to 500 megawatts and use an array of up to 292 wind turbines. The Project consists of two groups of wind turbines, 'Wheatridge West' and 'Wheatridge East,' and a connecting 230-kilovolt overhead transmission line (the 'Intraconnection Line'); each of these involve other supporting facilities such as roads and underground electrical lines.

Oregon Administrative Rule (OAR) 635-415-0025, the Wildlife Habitat Mitigation Policy, defines habitats based on type, quality, availability, and usefulness/importance to wildlife, and establishes mitigation goals and implementation standards for each. As further described in the SCA Exhibit P, Category 1 habitat, which is defined as irreplaceable, essential, and limited, includes habitat within 785 feet of documented Washington ground squirrels. The Project was designed and micro-sited to avoid all mapped Category 1 upland

habitat, and based on that information, no Project facilities or activities will impact such habitat.

Category 2 habitat is defined by OAR 635-415-0025 as essential and limited, and NWC identified small amounts of such habitat within the Project area based on these criteria and the value of such lands to wildlife generally and, in particular, to species of special state or federal status. The OAR specifies net benefit be achieved for Category 2 impacts and defines this as “an increase in overall in-proximity habitat quality or quantity after a development action and any subsequent mitigation measures have been completed and monitored.”

In 2013, ODFW began to consider all land (except developed and agriculture such as cropland) that lies within designated big game winter range as Category 2. This leads to the inclusion of additional Category 2 habitat in the Project impacts. For habitat impacts (permanent and temporary) associated with this (big game) Category 2, the mitigation described in this plan will be coupled with minimization best practices during construction to attain the goal of no net loss and a net benefit.

Most of the Project’s footprint (area to be covered by permanent facilities) will occupy dryland agriculture, which is Category 6 habitat. The rest of the footprint will occupy Category 2, Category 3 (Revegetated Grassland, Native Perennial Grassland, Basin Big Sagebrush Shrub-steppe, or Rabbitbrush/Buckwheat Shrub-steppe) or Category 4 (Exotic Annual Grassland) habitats.

In addition to the permanent impacts mentioned above, construction of the Project will entail temporary impacts to the same types and categories of habitat. Temporary impacts are summarized as follows: no Category 1 impacts, a small amount of impact to Category 2 habitat (based on ground assessment and definitions in OAR 635-415-0025), additional impacts to Category 2 (based on location within big game winter range), some Category 3 and Category 4 impacts, and mostly Category 6 impacts. Grassland habitats (Category 3 and 4) are expected to require three to five years after disturbance from construction activities to recover to a mature state of grassland cover. Native forbs in perennial grasslands (as well as in shrub-steppe) may not recover to pre-construction diversity or will take longer to recolonize the restored areas. Shrub-steppe habitats (Category 2 and 3) may take much longer to achieve the shrub species maturity and height that existed prior to construction (ten to fifty years).

III. Calculation of the Size of the Mitigation Area

The Habitat Mitigation Area (HMA) must be large enough and have the characteristics to meet the standards set in OAR 635-415-0025. These standards include “no net loss” and a “net benefit” in habitat quality and quantity for Category 2 habitats, and “no net loss” of habitat for Categories 3 and 4. Mitigation standards for Category 6 involve minimizing direct habitat loss and avoiding impacts to off-site habitat.

For the purposes of this discussion, the acreages of impact are the current estimate of the maximum affected area (the permanent and temporary impacts). The actual areas of

disturbance will be determined based on the final design layout of the Project. It is anticipated that ODOE and ODFW will require that they be provided with the final design layout and the associated impact acreages prior to the beginning of Project construction.

The following tables delineate current maximum habitat impact acreage estimates of each of the three components of the Wheatridge Wind Energy Project.

Wheatridge West

<u>Habitat Category</u>	<u>Permanent Impacts</u>	<u>Temporary Impacts</u>
Category 2	3.6	19.7
Category 2 (big game)	21.3	135.8
Category 3	13.5	91.5
Category 4	1.8	11.6
Category 6*	88.6	534.3
Total Impacted Acres	128.9	792.9

* no mitigation required

Wheatridge East

<u>Habitat Category</u>	<u>Permanent Impacts</u>	<u>Temporary Impacts</u>
Category 2	5.6	33.6
Category 2 (big game)	0.4	3.1
Category 3	3.8	26.4
Category 4	1.8	11.7
Category 6*	29.9	185.7
Total Impacted Acres	41.5	260.5

* no mitigation required

Transmission Intraconnection Line

<u>Habitat Category</u>	<u>Permanent Impacts</u>	<u>Temporary Impacts</u>
Category 2	0.0	4.1
Category 2 (big game)	0.4	62.6
Category 3	0.1	16.8
Category 4	0.0	2.5
Category 6*	0.4	58.0
Total Impacted Acres	0.9	144.0

* no mitigation required

Based on these impact estimates, calculation of the mitigation area required (under the maximum layout) are as follows:

Wheatridge West

Category 2

Footprint: 3.6 acres (2:1 ratio)

Temporary impacts: 19.7 acres (>1:1 ratio)

Mitigation area required: $(3.6 \times 2) + (>19.7) = >26.9$

Category 2 (Big Game)

Footprint: 21.3 acres (>1:1 ratio)

Temporary impacts: * revegetated grassland 91.5 (1:1); exotic annual grassland 12.5 (1:1); native perennial grassland 31.8 (1:1)

Mitigation area required: $> 21.3 + (91.5 + 12.5 + 31.8) = >157.2$ acres

Category 3

Footprint: 13.5 acres (1:1 ratio)

Temporary impacts: revegetated grassland 60.7 (0:1); native perennial grassland 28.7 (0.5:1 ratio); shrub-steppe 2.1 (0.5:1)

Mitigation area required: $13.5 \text{ acres} + (0.0 + 14.4 + 1.0) = 28.9$ acres

Category 4

Footprint: 1.8 acres (1:1 ratio)

Mitigation area required: 1.8 acres

Total mitigation area required (Wheatridge West, to nearest whole acre): >215

* For temporary habitat loss within designated deer winter range, mitigation will be coupled with impact minimization and revegetation efforts to attain the goal of no net loss and a net benefit.

Wheatridge East

Category 2

Footprint: 5.6 acres (2:1 ratio)

Temporary impacts: 33.6 acres (>1:1 ratio)

Mitigation area required: $(5.6 \times 2) + (>33.6 \times 1) = >44.8$ acres

Category 2 (Big Game)

Footprint: 0.4 acres (>1:1 ratio)

Temporary impacts: exotic annual grassland 0.8 (1:1); native perennial grassland 2.3 (1:1)

Mitigation area required: $>(0.4 + (0.8 + 2.3)) = >3.5$ acres

Category 3

Footprint: 3.8 acres (1:1 ratio)

Temporary impacts: revegetated grassland 0.0 (0:1); native perennial grassland and shrub-steppe 26.4 (0.5:1 ratio)

Mitigation area required: $3.8 \text{ acres} + (0.0 + 13.2) = 17.0$ acres

Category 4

Footprint: 1.8 acres (1:1 ratio)

Mitigation area required: 1.8 acres

Total mitigation area required (Wheatridge East, to nearest whole acre): >67

Transmission Intraconnection Line

Category 2

Footprint: 0.0 acres (2:1 ratio)

Temporary impacts: 4.1 acres (>1:1 ratio)

Mitigation area required: $(0.0 \times 2) + (>4.1 \times 1) = >4.1$ acres

Category 2 (Big Game)

Footprint: 0.4 acres (>1:1 ratio)

Temporary impacts: * revegetated grassland 11.5 (1:1); exotic annual grassland 1.4 (1:1); native perennial grassland 35.5 (1:1); shrub-steppe 14.2 (1:1)

Mitigation area required: $> 0.4 + (11.5 + 1.4 + 35.5 + 14.2) = > 63.0$ acres

Category 3

Footprint: 0.1 acres (1:1 ratio)

Temporary impacts: revegetated grassland 7.2 (0:1); native perennial grassland and shrub-steppe 9.6 (0.5:1 ratio)

Mitigation area required: 0.1 acres + $(0.0 + 4.8) = 4.9$ acres

Category 4

Footprint: 0.0 acres (1:1 ratio)

Mitigation area required: 0.0 acres

Total mitigation area required (Transmission Intraconnection, to nearest whole acre): >72

* For temporary habitat loss within designated deer winter range, mitigation will be coupled with impact minimization and revegetation efforts to attain the goal of no net loss and a net benefit.

Total mitigation area required (all three Project components): >354 acres

IV. Description of the Habitat Mitigation Area (HMA)

According to ODFW standards, areas appropriate for mitigation of Category 2 and Category 3 habitat impacts must be "in proximity" to the Project and have potential for habitat enhancement. The applicant has identified more than 360 acres of suitable habitat for consideration by ODFW and ODOE (map submitted separately). These include Native Perennial Grassland, Revegetated Grassland, Basin Big Sagebrush Shrub-steppe, Rabbitbrush/Buckwheat Shrub-steppe, and Exotic Annual Grassland habitats of varying quality. There are opportunities for implementing habitat enhancement actions, as needed for the final habitat mitigation compliance. NWC has confirmed that the parcels under current consideration have adequate potential for mitigating the habitat loss expected to occur and for providing benefit for the wildlife species that use the habitats impacted by habitat loss associated with the Project, including big game. All of the habitat proposed for use as mitigation lies within designated deer winter range. The referenced acreages for mitigation will be discussed with ODFW.

V. Habitat Enhancement Actions

Habitat designated for mitigation will be conserved and protected from alteration for the life of the Project. Besides such legal protection to insure no development, actions that are proposed for enhancement of the mitigation area include

- Livestock grazing will be restricted from the HMA to ensure that habitat is maximally useful to wildlife;
- The holder of the Site Certificate will work with the landowner to control or eradicate noxious weeds.
- Revegetation with native plants—sagebrush and bunch grasses—will occur in proportion to the acres of sagebrush and native grassland habitats lost through Project construction.
- A plan for fire response and control will be in place and applied to the HMA.
- Where old barbed wire fence on the HMA presents potential problems for wildlife, the holder of the Site Certificate will work with the landowner to remove such fencing.
- Habitat protection will involve restricting any uses of the mitigation area that would be inconsistent with the goals of no net loss of habitats in Categories 2, 3, and 4 and a net benefit to Category 2 habitat quantity or quality.

Enhancement activities are expected to apply specifically to the approximately 80 acres of the HMA required as compensation for those habitat impacts outside of deer winter range. The other 226 acres are deemed sufficient compensation for the big game Category 2 habitat impacts. The habitat within the HMA is currently of superior quality to most of the habitat to be impacted within deer winter range. Moreover, the majority of those impacted acres (those with temporary impacts) will be restored within three to five years to better condition than they were prior to construction, as required as part of the Revegetation Plan.

VI. Monitoring

1. Procedures

The holder of the Site Certificate will hire a qualified, independent investigator (wildlife biologist, botanist, or revegetation specialist) to conduct a comprehensive program of monitoring the HMA and the success of its protection and (within applicable acres) enhancements. Annual monitoring will include assessments of:

- Amount and quality of vegetation
- Success of weed control measures
- Degree of recovery of native grasses and forbs
- Success of revegetation measures (where applicable)
- Special status species present

Methods and results of all monitoring will be reported to ODOE and ODFW on an annual basis, along with a report of the mitigation/enhancement measures undertaken that year.

2. Success Criteria

The goal of the habitat mitigation described herein is to protect and enhance a sufficient quantity of habitat to meet ODFW standards of no net loss of habitat Category 3 and Category 4 and a net gain in habitat quantity and quality of Category 2. Habitat protection alone—apart from enhancement—will not be deemed to meet the net-benefit criterion for Category 2 habitat. The minimum amount of habitat protection and enhancement required will be calculated as in Section 3 above using the impact acreages associated with the final Project design. If sufficient high-quality habitat is not available for protection, habitat mitigation goals can be achieved by enhancing the required amount of habitat to bring it up to the higher category. Criteria for assessing such a category improvement will include density and quality of native vegetation of the appropriate types (desirable forbs and bunchgrasses, e.g.) success of weed control, and increased use of the area by native bird or mammal species with special status. If the holder of the Site Certificate desires to base habitat improvement on increased avian or other wildlife use, then baseline studies will need to be conducted on the habitat mitigation area in the spring of Year 1 or Year 2.

Habitat protection and enhancement must endure for the life of the Project. That is, even after habitat protection and enhancement has been achieved, periodic monitoring must take place to assess whether protection and enhancement persists at levels commensurate with mitigation goals. Should habitat quality fall below that prescribed by the Habitat Management Plan, the holder of the Site Certificate will, in consultation with ODFW and ODOE, propose remedial actions for compensating for such a failure to meet mitigation goals.

VII. Amendment of the Plan

This Habitat Mitigation Plan may be amended by agreement of the holder of the Site Certificate and the Oregon Energy Facility Siting Council. Amendments to this Plan will not require an amendment of the Site Certificate.

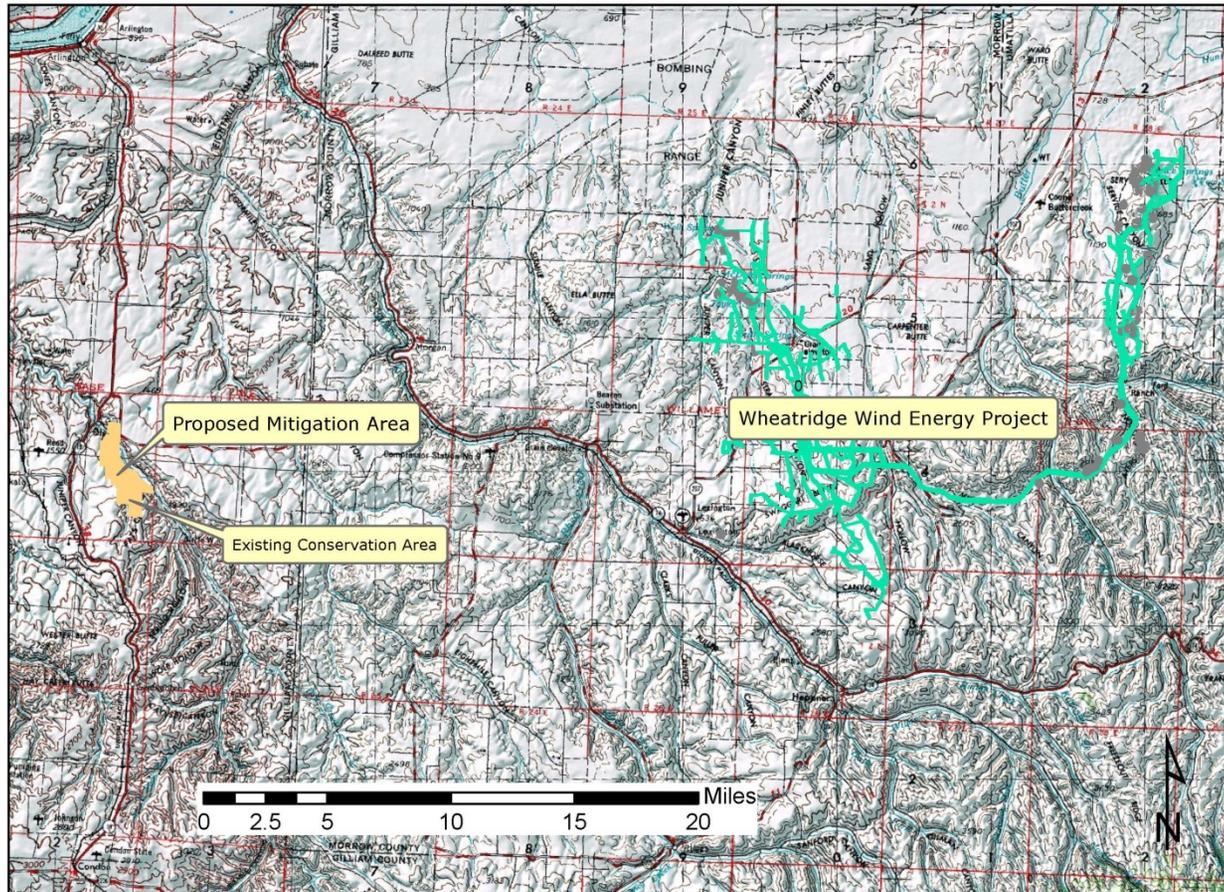


Figure 1. Overview Map: Habitat Mitigation Area for the Wheatridge Wind Energy Project.

Attachment E: Draft Revegetation Plan

Wheatridge Wind Energy Facility

Revegetation Plan (Draft Concepts)

Prepared for:

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April 2015

I. Introduction

This document has been prepared for the Wheatridge Wind Energy Facility (Wheatridge, WWEF, or Project) Site Certificate Application (SCA) submitted to the Oregon Department of Energy (ODOE). It provides primary concepts for meeting the needs for revegetation following Project construction and will be finalized (by ODOE) into a formal Revegetation Plan, authored by the ODOE before issuance of the Site Certificate. The concepts provided here are consistent with approved plans in place for other Oregon wind projects in similar habitats, in particular those that are permitted through the State process and the Oregon Energy Facility Siting Council (OEFSC or the Council). The Leaning Juniper II, Stateline, and Montague Revegetation Plans, and available revegetation monitoring reports for wind and natural gas energy projects served as models for the Wheatridge concepts.

The WWEF Revegetation Plan, which has been developed in consultation with personnel from the Oregon Department of Fish and Wildlife, delineates practices and standards for restoring to preconstruction conditions or better those areas temporarily disturbed during construction of the Project; it does not apply to areas permanently occupied by Project facilities. Such restoration is a requirement of the Site Certificate.

The amounts and types of habitats expected to be disturbed during Project construction are described in Exhibit P of the Site Certificate Application; they are also described in Attachment P-3, the Draft Habitat Mitigation Plan. These will include agricultural and other developed lands (collectively referred to as cropland) and grassland, shrub-steppe, and other habitats (collectively referred to as wildlife habitat). This plan addresses both restoration of croplands and restoration of wildlife habitat. For wildlife habitat in particular, it describes planting methods, monitoring requirements, success criteria, and remedial actions (in case success criteria are not met).

Throughout Project construction and revegetation activities, the Developer will take appropriate actions to prevent the spread of noxious weeds (as identified in Morrow County Ordinance No. MC-C-3-90 and No. MC-C-2-99 Appendices A and B). Where appropriate, and pursuant to consultation with the county weed control managers, monitoring of the establishment of noxious weeds and of the effectiveness of weed control or eradication may be performed in concert with the revegetation monitoring described in this document.

II. Project Site Description

The Project is located primarily in Morrow County, with a small portion in Umatilla County, Oregon. It lies within the Columbia Plateau Ecoregion, entirely on public land and primarily in agricultural land used for growing dryland wheat. Native vegetation has been modified by historical and current livestock grazing, by changes in fire regimes, and by the presence of exotic grasses and other vegetation.

Primary soil types include Mikkalo, Willis, Ritzville, and Warden, and land cover types are Developed (Dryland Wheat, Revegetated Grassland, and Other Developed), Grassland (Exotic Annual and Native Perennial), and Shrub-steppe (Basin Big Sagebrush and Snakeweed/Rabbitbrush).

III. Revegetation Methods

Revegetation will begin as soon as feasible after completion of construction, and seeding and planting will be done in a timely manner and in the appropriate season. Agricultural land restoration methods will likely be designed in consultation with the landowner. Soil preparation will involve standard, commonly-used methods, and will take into account all relevant site-specific factors, including slope, size of area, and erosion potential. Topsoil will be restored to the preconstruction condition or better. Mulching and other erosion control measures will be used throughout construction and during revegetation efforts. Preconstruction land use, soil, and vegetation type will dictate the seed mix used for each area to be restored; the wildlife habitat seed mixes used will be finalized in consultation with ODFW and will comply with the Oregon Seed Law.

1. Seed Planting Methods

Methods and timing of planting will be appropriate to the seed mix, weather conditions, and site conditions (including area size, slope, and erosion potential). Preparation of disturbed ground may include replacing lost topsoil and/or chemical or mechanical weed control. Two common application methods for non-cropland are described below.

a) Broadcasting

In this method, the seed mix will be broadcast at specified application rates. Broadcasting should not be utilized when winds exceed five miles per hour. If feasible, half of the seed mix will be broadcast in one direction, with the other half broadcast perpendicular to the first half. A tracking dye may be added to facilitate uniform application. Certified weed-free straw will be applied at a rate of two tons per acre immediately after seeding; straw may either be crimped into the ground or applied with a tackifier.

b) Drilling

In this method, seed will be planted using an agricultural or range seed drill according to application rates recommended by the seed supplier.

IV. Restoration of Cropland

It is expected that croplands will be reseeded with the appropriate crop or maintained as fallow in consultation with the landowner or farm operator. The holder of the Site Certificate will also consult with the landowner or farm operator to determine seed mix and application methods and rates for seed and fertilizer. Success of cropland revegetation will have been achieved when production of the revegetated area is comparable to that of adjacent non-disturbed croplands. Success determination will involve consultation with the landowner or farm operator, and the holder of the Site Certificate will report to ODOE on the success of cropland restoration efforts.

V. Restoration of Wildlife Habitat

All disturbed grassland, shrub-steppe, and other wildlife habitat will be reseeded with a mix of native or native-like grasses, forbs, and shrubs characteristic of the area prior to construction disturbance. Seed mix and application rates will be determined in consultation

with the landowner and ODFW, and will take into consideration soil types, erosion potential, and growing conditions. The seed mix will be approved by ODOE, and seeds will be obtained from a reputable supplier in compliance with the Oregon Seed Law.

VI. Monitoring

1. Revegetation Record

Records will be kept of revegetation efforts, both for croplands and for wildlife habitat; records will include:

- Date construction was completed
- Description of the affected area
- Date revegetation was initiated
- Description of the revegetation effort

The holder of the Site Certificate will update these records periodically as revegetation work occurs, and will provide ODOE with copies of these records with submission of the annual report required by the Site Certificate.

2. Monitoring Procedures

Monitoring of the revegetation effort will be conducted by an independent botanist or revegetation specialist; this monitoring will be done during the first growing season after planting (Year 1), and again in Years 3 and 5. Nearby reference sites (approximating pre-construction conditions) will be selected as targets toward which revegetation will aim. Monitoring will not be required for areas that have been converted by the landowner to land uses that preclude meeting revegetation success criteria.

Weed Control

A qualified investigator will be employed to annually assess weed growth during the first five years of revegetation work and to make recommendations on weed control measures. Reports will be submitted to the holder of the Site Certificate, to ODOE, and to ODFW following each annual inspection. These reports will identify areas and describe extent of weed growth and describe the success of control measures. At the time of the year-5 report, the investigator will consult with ODOE, ODFW, and the holder of the Site Certificate to design an appropriate plan for subsequent weed control.

Wildlife Habitat Recovery

In the first growing season after planting of areas to be revegetated, a qualified independent investigator (botanist or revegetation specialist) will inspect each wildlife habitat revegetation area to assess the success of revegetation measures. These assessments will be repeated in Year 3 and Year 5. Annual reports will be submitted to the holder of the Site Certificate, to ODOE, and to ODFW. Assessments will address whether each wildlife habitat revegetation area is trending toward meeting the success criteria described below.

In consultation with ODFW, reference sites—areas of habitat and quality similar to those found prior to disturbance at the areas to be revegetated—will be established to represent target conditions for revegetation areas. During each assessment, revegetated areas will be compared to reference sites with regard to:

- Presence and density of weeds
- Degree of erosion
- Vegetative density
- Proportion of desirable vegetation
- Species diversity and structural stage of desirable vegetation

Reference sites will be chosen with consideration to land use patterns, soil types, terrain, and presence of noxious weeds. It is expected that a variety of reference sites will be required to represent the range of disturbed areas for which revegetation is required. New reference sites may be chosen if land use changes, wildfire, or other disturbance makes a chosen reference site no longer representative of target conditions.

Based on the Year 5 assessment, the holder of the Site Certificate will consult with ODOE and ODFW to design an action plan for subsequent years. The holder of the Site Certificate may propose remedial actions and/or additional monitoring for areas that have not met the success criteria. Alternatively, revegetation efforts may in some cases be deemed to have failed, and mitigation may be proposed in such cases to compensate for habitat loss.

3. Success Criteria

Each annual report will involve an assessment of the progress toward revegetation objectives of each area of wildlife habitat disturbed during Project construction. The overarching metric for success is when the habitat quality is equal to or better than the quality at the relevant reference site according to the conditions described above. Final determination of whether the holder of the Site Certificate has met the revegetation obligations will be made by ODOE.

4. Remedial Action

Remedial action options will be identified in cases where success criteria are not met, whether due to wildfire subsequent to Project construction or because of lower than expected rates of germination or survival. Remedial actions may include reseeding or other measures. The investigator will make recommendations for remedial actions after each monitoring visit, and the holder of the Site Certificate will take appropriate measures to meet the restoration objectives. The holder of the Site Certificate will annually report the investigator's recommendations for remedial actions and the measures taken. ODOE may require reseeding or other remedial actions in cases where revegetation objectives have not been met.

VII. Plan Amendment

It is expected that the completed Revegetation Plan will make provision for an amendment process that would depend upon the agreement of all concerned parties. In particular, this Plan may be amended—without requiring an amendment to the Site Certificate—by agreement between the Oregon Energy Facility Siting Council (OEFSC) and the holder of the Site Certificate.

Attachment F: Wildlife Monitoring and Management Plan

Wheatridge Wind Energy Project

**Proposed Concepts for
Wildlife Monitoring and Mitigation Plan**

Prepared for:

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December 14, 2014

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Introduction

This document has been prepared for the Wheatridge Wind Energy Facility (WWEF or Project) Site Certificate Application (SCA) submitted to the Oregon Department of Energy (ODOE). It provides primary concepts for meeting the operations phase wildlife monitoring and mitigation needs and will be finalized (by ODOE) into a formal Wildlife Monitoring and Mitigation Plan (WMMP), taking into account the objectives for such monitoring of the Oregon Department of Fish and Wildlife (ODFW) and the United States Fish and Wildlife Service (USFWS).

The concepts provided herein are consistent with approved plans in place for other Oregon wind projects, in particular those that are permitted through the State process and the Energy Facility Siting Council. For most such plans in the Oregon Columbia Plateau, the objective has been to provide information useful for determining the impacts of construction and operation of wind energy facilities on wildlife in general—and on birds and bats in particular. As a result of such studies, a wealth of information is available, and the species and relative proportions of birds and bats impacted by wind development in the Oregon Columbia Plateau is now well established.

For this reason, and because multiple-species monitoring has often led to a suboptimal understanding of impacts to particular species of special conservation concern, the USFWS has established guidelines (USFWS, 2012) to facilitate the identifying and addressing such species and the potential impacts to them. For the Wheatridge Wind Energy Facility, pre-construction information reviews and field investigations (Gerhardt et al., 2014) followed those guidelines, as did subsequent siting and micrositing of facilities (Exhibits P and Q of the Wheatridge Site Certificate Application). The conclusion of this process led to discussions with USFWS centering on the potential risk of the Project to golden eagle, discussions that likely will lead to an Eagle Conservation Plan and an Eagle Take Permit. In that case, the methods described in this Plan (especially fatality monitoring and mitigation) may—prior to the beginning of construction of the Project—be tailored specifically to golden eagles and other large raptors.

Wheatridge Wind Energy, LLC (Wheatridge) proposes to construct the Wheatridge Wind Energy Facility on portions of approximately 13,100 acres of privately-owned land in Morrow and Umatilla Counties, Oregon. The Project will have a generating capacity of up to 500 megawatts (MW), using an array of up to 292 wind turbines. The Project consists of two groups of wind turbines, called 'Wheatridge West' and 'Wheatridge East,' and an intraconnection corridor connecting the Wheatridge West and Wheatridge East wind turbine groups with one or two 230 kilovolt (kV) overhead transmission lines. A detailed Project description can be found in Exhibit B of the Wheatridge Site Certificate Application, and detailed maps of the Project site boundary and Project facilities can be found in Exhibit C.

This plan describes wildlife monitoring that the certificate holder shall conduct during operation of the Project. Monitoring objectives of the formal study 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. Objectives of continued recording, handling and

reporting of incidentally discovered injured or dead wildlife are to meet the standards specified in any other requirement (federal, state, county) for understanding and documenting species found over time.

For the formal study, the certificate holder shall use experienced and properly trained personnel (the "investigators") to conduct the monitoring required under this plan. The professional qualifications of the investigators are subject to approval by the Oregon Department of Energy. For all components of this plan except the life-of-project 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 WWEF has the following components:

- 1) Fatality monitoring program including:
 - a) Removal trials
 - b) Searcher efficiency trials
 - c) Fatality search protocol
 - d) Statistical analysis
- 2) Raptor nesting surveys
- 3) Wildlife Reporting and Handling System

Component #1 is of shorter duration whereas #2 is periodic for a longer period and #3 if for the life of the project. Based on the results of the monitoring program, 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 ODOE and shall carry out mitigation actions approved by ODOE, 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, shall select search plots based on a systematic sampling design 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; radius will be determined with regard to maximum blade tip height and species of concern. Square search plots will be of sufficient size to contain a circular search plot as described above. The certificate holder shall provide maps of the search plots to ODOE before beginning fatality monitoring at the facility. 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:

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.

Duration of Fatality Monitoring

The investigators shall perform one complete monitoring cycle during the first full year of facility operation (Year 1). At the end of the first year of monitoring, the certificate holder will report the results for joint evaluation by ODOE, the certificate holder, and ODFW. In the evaluation, the certificate holder shall compare the results for the WWEF 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 WWEF 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.

If fatality rates for the first year of monitoring at the WWEF materially exceed any of the thresholds of concern or the range of fatality rates found at other wind power facilities in the region, the certificate holder shall propose additional mitigation for ODOE and ODFW review within 6 months after reporting the fatality rates to the ODOE. Alternatively, the certificate holder may opt to conduct a second year of fatality monitoring immediately if the certificate

holder believes that the results of 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. Trial carcasses shall be distributed within habitat categories and subtypes in proportion to their amounts within search plots.

After the first year of fatality monitoring, the investigators may reduce the number of removal trials and the number of removal trial carcasses during any subsequent year of fatality monitoring, subject to the approval of the Department. The investigators must show that the reduction is justified based on a comparison of the first year removal data with published removal data from nearby wind energy facilities.

The investigators shall use game birds or other legal sources of avian species as test carcasses for the removal trials, and the investigators may use carcasses found in fatality monitoring searches. The investigators shall select species with 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 discernable 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 ODOE 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 ODOE.

(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 may be used—if sample sizes are too small for some habitat types—to adjust carcass counts for detection bias.

The investigators shall conduct searcher efficiency trials within each of the seasons defined above during the years in which the fatality monitoring occurs. Each trial will involve approximately 4 to 15 carcasses. The searchers will not be notified of carcass placement or test dates. The investigators shall vary the number of trials per season and the number of carcasses per trial so that the searchers will not know the total number of trial carcasses being used in any trial. In total, approximately 80 carcasses will be used per year, or approximately 15 to 25 per season.

For each trial, the investigators shall use small- and large-bodied species. The investigators shall use game birds or other legal sources of avian species as test carcasses for the efficiency trials, and the investigators may use carcasses found in fatality monitoring searches. The investigators shall select species with 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 4 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 ODOE 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 ODOE.

(d) Fatality Monitoring Search Protocol

The objective 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 concentric or parallel transects (with transect width determined by the species of concern) within search plots. Search area and speed may be adjusted by habitat type after evaluation of the first searcher efficiency trial.

Searchers shall flag all avian or bat carcasses discovered. Carcasses are defined as a complete carcass or body part, 10 or more feathers or three or more primary feathers in one location. When parts of carcasses and feathers from the same species are found within a search plot, searchers shall make note of the relative positions and assess whether or not these are from the same fatality.

All carcasses (avian and bat) found during the standardized carcass searches will be 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. When assessment of the carcass is complete, all traces of it will be removed from the site.

Each carcass will be bagged and frozen for future reference and possible necropsy or (if the carcass is fresh and whole) for use in trials. A copy of the data sheet for each carcass will be kept with the carcass at all times. For each carcass found, searchers will record species, sex and age when possible, date and time collected, location, condition (e.g., intact, scavenged, feather spot) and any comments that may indicate cause of death. Searchers will photograph each carcass as found and will map the find on a detailed map of the search area showing the location of the wind turbines and associated facilities. The certificate

holder shall coordinate collection of state endangered, threatened, sensitive or other state protected species with ODFW. The certificate holder shall coordinate collection of federally listed endangered or threatened species and Migratory Bird Treaty Act protected avian species with the U.S. Fish and Wildlife Service. The certificate holder shall obtain appropriate collection permits from ODFW and USFWS.

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 ODOE. 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-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 collection of incidentally discovered federally-listed endangered or threatened species and Migratory Bird Treaty Act protected avian species with the USFWS.

The certificate holder shall develop and follow a protocol for handling injured birds. Any injured native birds found on the facility site will be carefully captured by a trained project biologist or technician and transported to a qualified rehabilitation specialist approved by ODOE.¹ The certificate holder shall pay costs, if any, charged for time and expenses related

¹ Approved specialists include Lynn Tompkins (wildlife rehabilitator) of Blue Mountain Wildlife, a wildlife rehabilitation center in Pendleton, and the Audubon Bird Care Center in Portland. The certificate holder must obtain

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 (Shoenfeld Estimator)

The estimate of the total number of wind facility-related fatalities is based on:

- (1) 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.²
- (2) Searcher efficiency expressed as the proportion of planted carcasses found by searchers.
- (3) 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 |

ODOE approval before using other specialists.

² If a different cause of death is not apparent, the fatality will be attributed to facility operation.

- l 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_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 megawatts (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 still 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:

$$\hat{\pi} = \frac{\bar{t} \cdot p}{I} \cdot \left[\frac{\exp\left(\frac{I}{\bar{t}}\right) - 1}{\exp\left(\frac{I}{\bar{t}}\right) - 1 + p} \right]. \quad (4)$$

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 5th and upper 95th 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 a worst-case analysis to resolve any uncertainty in the results and to determine whether the data indicate that additional mitigation should be considered. ODOE 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.”³ 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 WWEF:

Species Group	Threshold of Concern (fatalities per MW)
Raptors (All eagles, hawks, falcons and owls, including burrowing owls.)	0.09
Raptor species of special concern (Swainson’s hawk, ferruginous hawk, peregrine falcon, golden eagle, bald eagle, burrowing owl.)	0.06
Grassland species (All native bird species that rely on grassland habitat and are either resident species occurring year round or species that nest in the area, excluding horned lark, burrowing owl and northern harrier.)	0.59
State sensitive avian species listed under OAR 635-100-0040 (Excluding raptors listed above.)	0.2
Bat species as a group	2.5

If the data show that a threshold of concern for an avian species group has been exceeded, the certificate holder shall implement mitigation if ODOE 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. In addition, ODOE may determine that mitigation is appropriate if fatality rates for individual avian or bat species (especially State Sensitive Species) are higher than expected and at a level of biological concern. If ODOE determines that mitigation is appropriate, the certificate holder, in consultation with ODOE and ODFW, shall propose mitigation measures designed to benefit the affected species. This may take into consideration whether the mitigation required or provided in conjunction with raptor nest monitoring, habitat mitigation, or other components of the *Wildlife Monitoring and Mitigation Plan* or *Habitat Mitigation Plan*, would also benefit the affected species.

The certificate holder shall implement mitigation as approved by ODOE, subject to review by the Council. ODOE may recommend additional, targeted data collection if the need for

³ The Council adopted “thresholds of concern” for raptors, grassland species, and state sensitive avian 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.”

mitigation is unclear based on the information available at the time. The certificate holder shall implement such data collection as approved by the Council.

The certificate holder shall design mitigation to benefit the affected species group. Mitigation may include, but is not limited to, protection of nesting habitat for the affected group of native species through a conservation easement or similar agreement. Tracts of land that are intact and functional for wildlife are preferable to degraded habitat areas. Preference should be given to protection of land that would otherwise be subject to development or use that would diminish the wildlife value of the land. In addition, mitigation measures might include: enhancement of the protected tract by weed removal and control; increasing the diversity of native grasses and forbs; planting sagebrush or other shrubs; constructing and maintaining artificial nest structures for raptors; improving wildfire response; and conducting or making a contribution to research that will aid in understanding more about the affected species and its 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 mitigation if ODOE 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.

2. Raptor Nest Surveys

The objectives of raptor nest surveys are: (1) to estimate the size of the local breeding populations of raptor species that nest on the ground or aboveground in trees or other aboveground nest locations in the vicinity of the facility; and (2) to determine whether there are noticeable changes in 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. The investigators will use aerial and ground surveys to evaluate nest success by gathering data on active nests, on nests with young, and on young fledged.

(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 4. After the second monitoring season, the investigators will analyze two years of data compared to the baseline data.

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 facility site 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 pre-construction surveys and any nests discovered during post-construction surveys, whether active or inactive, will be given identification numbers. 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).

(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.⁴ Investigators will conduct the first long-term raptor nest survey in the raptor nesting season of the ninth year after construction is completed 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 ODOE. In developing an alternative protocol, the investigators will consult with ODFW and will take into consideration other raptor nest monitoring conducted in adjacent areas. The investigators will analyze the data—as a way of determining trends in the number of raptor breeding attempts the facility supports and the success of those attempts—and will submit a report after each year of long-term raptor nest surveys.

3. Wildlife Reporting and Handling System

The Wildlife Reporting and Handling System (WRHS) is a monitoring program to search for and handle avian and bat casualties found by maintenance personnel 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”).

All avian and bat carcasses discovered by maintenance personnel will be photographed and data will be recorded as would be done for carcasses within the formal search sample during scheduled searches. If maintenance personnel discover incidental finds, the maintenance personnel will notify a project biologist. The Project biologist (or the Project biologist’s experienced wildlife technician) will collect the carcass or will instruct maintenance

⁴ 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.

personnel to have an on-site carcass handling permittee collect the carcass. The certificate holder's on-site carcass handling permittee must be a person who is listed on state and federal scientific or salvage collection permits and who is available to process (collect) the find on the day it is discovered. The find must be processed on the same day as it is discovered.

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. The Project biologist will collect the carcass or will instruct maintenance personnel to have an on-site carcass handling permittee collect the carcass. As stated above, the on-site permittee must be available to process the find on the day it is discovered. The certificate holder shall coordinate collection of state endangered, threatened, sensitive or other state protected species with ODFW. The certificate holder shall coordinate collection of federally-listed endangered or threatened species and Migratory Bird Treaty Act protected avian species with the USFWS.

4. Data Reporting

The certificate holder will report wildlife monitoring data and analysis to the ODOE for each calendar year in which wildlife monitoring occurs. Monitoring data include fatality monitoring program data, raptor nest survey data, and WRHS 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 ODOE any data or record generated in carrying out this monitoring plan upon request by ODOE.

The certificate holder shall notify USFWS and ODFW immediately if any federal or state endangered or threatened species are killed or injured on the facility site.

5. 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 ODOE to agree to amendments to this plan and to mitigation actions that may be required under this plan. ODOE 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 ODOE.

Attachment 2: Draft Proposed Order Comments (received by October 12, 2018)

ESTERSON Sarah * ODOE

Subject: FW: Wheatridge Wind Energy Facility: Notice of Complete Request for Amendment 2 of the Site Certificate, Draft Proposed Order and Public Hearing - October 25, 2018
Comment Deadline

Attachments: Wheatridge Ammdment 2 comments 10-8-18.doc

From: Steve Cherry [mailto:Steve.P.Cherry@state.or.us]

Sent: Monday, October 8, 2018 10:43 AM

To: ESTERSON Sarah * ODOE <Sarah.Esterson@oregon.gov>

Cc: REIF Sarah J <Sarah.J.Reif@state.or.us>

Subject: RE: Wheatridge Wind Energy Facility: Notice of Complete Request for Amendment 2 of the Site Certificate, Draft Proposed Order and Public Hearing - October 25, 2018 Comment Deadline

Sarah,

Here are ODFW's comments on Amendment 2 for the Wheatridge project. Please let me know if you have any questions. Thanks

Sarah R.

If I missed anything please let me know.

Steve



MEMORANDUM

Department of Fish and Wildlife
Wildlife Division
Intra Departmental

Date: October 8, 2018
To: Sarah Esterson- Oregon Department of Energy
From: Steve Cherry –District Biologist, Sarah Reif –ODFW Energy Coordinator
Subject: ODFW Comments for Amendment 2 for the Wheatridge Wind Energy Facility

Oregon Department of Energy (ODOE) has requested comments from the Oregon Department of Fish and Wildlife (ODFW) on the Request Amendment 2 for the Wheatridge Wind Energy Facility. This Letter contains: (1) ODFW contact information for the project; and (2) ODFW's comments on the Application.

Contacts

I will be the main contact person for ODFW for the Energy Facility Siting Council (EFSC) permitting process and my contact information is: Steve Cherry, PO Box 363, Heppner, OR 97836. My phone number is (541) 676-5230. I will also be coordinating with Sarah Reif, 3406 Cherry Ave. NE Salem, OR 97303 I would appreciate if you would ask the Applicant to send myself and Sarah Reif hard copies of the future EFSC process documents.

General Comments

Please find below a listing of the most applicable statutes, administrative rules and policies administered by ODFW that would pertain to the siting of this proposed facility. ODFW will review and make recommendations for the proposed project based on the following applicable statutes and rules.

ODFW Management Authorities

Some of the Oregon Department of Fish and Wildlife's (ODFW) goals, objectives, and management authorities for the fish and wildlife populations affected by the Project are found in the following Oregon Revised Statutes (ORS), Oregon Administrative Rules (OAR) and associated plans, and are summarized below.

- Energy Facility Siting Council Siting Standards – Fish and Wildlife Habitat (OAR 345-022-0060)
 This standard requires that the design, construction, and operation of a proposed facility (including mitigation) be consistent with the habitat mitigation goals and standards in OAR chapter 635, division 415. Oregon’s Energy Facility Siting Council (EFSC) must determine whether the applicant has done appropriate site-specific studies to characterize the fish and wildlife habitat at the site and nearby. If impacts cannot be avoided, the applicant must provide a habitat mitigation plan. The plan must provide for appropriate mitigation measures, depending on the habitat categories affected by the proposed facility. The plan may require setting aside and improving other land for fish and wildlife habitat to make up for the habitat removed by the facility.
- Energy Facility Siting Council Siting Standards – Threatened and Endangered Species (OAR 345-022-0070)
 To issue a site certificate, EFSC must (after consultation with ODFW) determine that the design, construction and operation of the proposed facility, taking into account mitigation, are not likely to cause a significant reduction in the likelihood of survival or recovery of a species listed under the Oregon Endangered Species Act. This standard seeks to avoid harmful impacts to plant and animal species identified as threatened or endangered under state law. In practice, this means that the applicant must provide appropriate studies of the site to identify threatened or endangered species that the proposed facility could affect. ODFW determines the state-listed threatened or endangered wildlife species. If a potential risk to the survival or recovery of a threatened or endangered species exists, the applicant must redesign or relocate the facility to avoid that risk or propose appropriate mitigation measures.
- Wildlife Policy (ORS 496.012)
 Establishes wildlife management policy to prevent serious depletion of any indigenous species and maintain all species of fish and wildlife at optimum levels for future generations.
- State Endangered Species Act (ORS 496.171-182)
 Requires conservation and recovery of wildlife species that are classified as endangered or threatened. Authorizes ODFW to develop conservation and recovery plans for listed wildlife species. At ORS 498.026(1), prohibits “taking” of any listed species. Illegal take is a violation of the wildlife laws, subject to criminal prosecution as a Class A misdemeanor or violation pursuant to ORS 496.992.
- Prohibition of harassment, etc. of wildlife (ORS 498.006)
 Prohibits chasing, harassment, molestation, worrying or disturbing any wildlife, except as the Fish and Wildlife Commission may allow by rule.
- Criminal penalties for wildlife violations (ORS 496.992)
 Makes violation of any wildlife statute or Fish and Wildlife Commission rule subject to prosecution as a Class A misdemeanor or violation.
- Fish and Wildlife Habitat Mitigation Rule (OAR 635-415-0000-0025)

Governs ODFW's provision of biological advice and recommendations concerning mitigation for losses of fish and wildlife habitat caused by development actions. Based on standards in the rule, ODFW determines the appropriate category to apply to land where a development action is proposed. If ODFW determines that such land is Category 1, ODFW must recommend that impacts to the habitat be avoided. If impacts cannot be avoided, ODFW must recommend against the development action. If ODFW determines that such land is Category 2, ODFW must recommend that impacts to the habitat be avoided. If impacts cannot be avoided, ODFW must recommend a high level of mitigation (as specified in more detail in the rule). If such mitigation is not required, ODFW must recommend against the development action.

- Wildlife Diversity Plan (OAR 635-100-0001 through 0030)
Establishes a plan to maintain Oregon's wildlife diversity by protecting and enhancing populations and habitats of native wildlife at self-sustaining levels throughout natural geographic ranges.
- Oregon Conservation Strategy Plan (Adopted by Commission)
A blueprint for conservation of the state's native fish and wildlife and their habitats, the Strategy provides information on at-risk species and habitats, identifies key issues affecting them, and recommends actions. The Conservation Strategy emphasizes proactively conserving declining species and habitats to reduce the possibility of future federal or state listings.
- Oregon Plan for Salmon and Watersheds (ORS 541.405)
Establishes plan to restore native fish populations and the aquatic systems that support them to productive and sustainable levels that will provide environmental, cultural, and economic benefits.
- ODFW's Fish Passage Law (ORS 509.580 - 509.645)
Requires upstream and downstream passage at all artificial obstructions in those Oregon waters in which migratory native fish are currently or have historically been present.
- General Fish Management Goals (OAR 635-007-0510)
Establishes the goals that fish be managed to take full advantage of the productive capacity of natural habitats, and that ODFW address losses in fish productivity due to habitat degradation through habitat restoration.
- Native Fish Conservation Policy (OAR 635-007-0502-0535)
Protects and promotes natural production of indigenous fishes.
- Trout Management (OAR 635-500-0100-0120)
Requires maintenance of genetic diversity and integrity of wild trout stocks, and the protection, restoration, and enhancement of trout habitat.
- Oregon's Mule Deer Management Plan (OAR 635-190-0000-0030)

Establishes a plan to protect and enhance mule deer populations in Oregon to provide optimum balance among recreational uses, habitat availability, primary land uses, and other wildlife species.

- Oregon's Elk Management Plan (OAR 635-160-0000-0030)
Establishes a plan to protect and enhance elk populations in Oregon, to provide optimum recreational benefits to the public, and be compatible with habitat capability and primary land uses.
- Oregon's Wolf Conservation and Management Plan (OAR 635-110-0000-0040)
Establishes measures ODFW will take to conserve and manage the species. This includes actions that could be taken to protect livestock from wolf depredation and address human safety concerns.
- Recommendations for Greater Sage-Grouse Habitat Classification Under Oregon Department of Fish and Wildlife's Fish and Wildlife Habitat Mitigation Policy (OAR 635-140-0000)
This document provides policy direction, consistent recommendations, and supporting rationale to guide ODFW habitat mitigation recommendations associated with impacts to greater sage-grouse habitat from energy development, its associated infrastructure, or other industrial/commercial development.

Specific Comments

Comment 1

ODFW does not have any specific comments on this proposed amendment providing that the Applicant follow all of the site certificate conditions for the two proposed battery storage facilities that are already adopted for the Wheatridge project. This includes but is not limited to any additional survey requirements, as well as revegetation and habitat mitigation requirements outlined in the certificate.

ODFW appreciates the opportunity to comment on this Amendment and is looking forward to working with ODOE and the Applicant on this project.