

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

In the Matter of the Application for a Site Certificate ) FINAL ORDER  
for the Wheatridge Wind Energy Facility )  
)

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Issued by

Oregon Department of Energy  
550 Capitol Street NE  
Salem, Oregon 97301-3742

April 2017



|   |            |
|---|------------|
| <b>I. INTRODUCTION .....</b>  | <b>1</b>   |
| <b>II. PROCEDURAL HISTORY .....</b>   | <b>3</b>   |
| II.A. NOTICE OF INTENT.....   | 3          |
| II.B. APPLICATION FOR SITE CERTIFICATE .....  | 3          |
| II.C. DRAFT PROPOSED ORDER .....  | 4          |
| II.D. CONTESTED CASE ON PROPOSED ORDER .....  | 5          |
| <b>III. DESCRIPTION OF THE FACILITY.....</b>  | <b>6</b>   |
| III.A. LOCATION AND SITE BOUNDARY .....   | 6          |
| III.B. THE FACILITY .....   | 9          |
| <b>IV. EVALUATION OF COUNCIL STANDARDS .....</b>                                      | <b>17</b>  |
| IV.A. GENERAL STANDARD OF REVIEW [OAR 345-022-0000] .....                             | 18         |
| IV.B. ORGANIZATIONAL EXPERTISE [OAR 345-022-0010] .....                               | 26         |
| IV.C. STRUCTURAL STANDARD [OAR 345-022-0020] .....                                    | 33         |
| IV.D. SOIL PROTECTION [OAR 345-022-0022].....   | 43         |
| IV.E LAND USE [OAR 345-022-0030] .....  | 55         |
| IV.F. PROTECTED AREAS [OAR 345-022-0040] .....  | 151        |
| IV.G. RETIREMENT AND FINANCIAL ASSURANCE [OAR 345-022-0050] .....                     | 162        |
| IV.H. FISH AND WILDLIFE HABITAT [OAR 345-022-0060] .....                              | 168        |
| IV.I. THREATENED AND ENDANGERED SPECIES [OAR 345-022-0070] .....                      | 191        |
| IV.J. SCENIC RESOURCES [OAR 345-022-0080] .....                                       | 198        |
| IV.K. HISTORIC, CULTURAL AND ARCHAEOLOGICAL RESOURCES [OAR 345-022-0090] .....        | 202        |
| IV.L. RECREATION [OAR 345-022-0100].....  | 206        |
| IV.M. PUBLIC SERVICES [OAR 345-022-0110] .....  | 215        |
| IV.N. WASTE MINIMIZATION [OAR 345-022-0120].....                                      | 234        |
| IV.O. PUBLIC HEALTH AND SAFETY STANDARDS FOR WIND FACILITIES [OAR 345-024-0010] ..... | 240        |
| IV.P. CUMULATIVE EFFECTS STANDARD FOR WIND ENERGY FACILITIES [OAR 345-024-0015] ..... | 242        |
| IV.Q. SITING STANDARDS FOR TRANSMISSION LINES [OAR 345-024-0090] .....                | 247        |
| IV.R. NOISE CONTROL REGULATIONS [OAR 340-035-0035] .....                              | 253        |
| IV.S. REMOVAL-FILL LAW .....  | 264        |
| IV.T. WATER RIGHTS .....  | 265        |
| <b>V. CONCLUSIONS AND ORDER OF THE COUNCIL .....</b>                                  | <b>267</b> |

**LIST OF TABLES**

TABLE 1: RANGE OF TURBINE SPECIFICATIONS USED FOR IMPACT EVALUATIONS .....11  
TABLE LU-1: APPLICABLE SUBSTANTIVE CRITERIA.....59  
TABLE LU-2: APPLICABLE SUBSTANTIVE CRITERIA.....92  
TABLE PA-1: PROTECTED AREAS WITHIN FACILITY ANALYSIS AREA .....154  
TABLE RF-1: APPLICANT’S SITE RESTORATION COST ESTIMATE .....165  
TABLE FW-1: POTENTIAL TEMPORARY AND PERMANENT IMPACTS BY HABITAT CATEGORY AND TYPE .....173  
TABLE SR-1: IMPORTANT SCENIC RESOURCES INVENTORY.....199  
TABLE NC-1: STATISTICAL NOISE LIMITS FOR INDUSTRIAL AND COMMERCIAL NOISE SOURCES .....256  
TABLE NC-2: PREDICTED SOUND LEVELS (GE 1.7-103 TURBINE LAYOUT) AT NOISE SENSITIVE RECEPTORS WITHIN 1-  
MILE OF SITE BOUNDARY .....259  
TABLE NC-3: PREDICTED SOUND LEVELS (GE 2.5-120 TURBINE LAYOUT) AT NOISE SENSITIVE RECEPTORS WITHIN 1-  
MILE OF SITE BOUNDARY .....260

**ATTACHMENTS**

- Attachment A: Draft Proposed Order Comment Index
- Attachment B: Draft Habitat Mitigation Plan
- Attachment C: Draft Revegetation Plan
- Attachment D: Draft Wildlife Monitoring and Mitigation Plan
- Attachment E: Site Certificate

**Acronyms and Abbreviations**

|            |   |
|------------|---|
| ACEC       | Area of Critical Environmental Concern              |
| AED        | Automated External Defibrillator                    |
| APLIC      | Avian Powerline Interaction Committee               |
| ASC        | Application for Site Certificate                    |
| BLM        | Bureau of Land Management                           |
| BMP        | Best Management Practice                            |
| BPA        | Bonneville Power Administration                     |
| CadnaA     | Computer Aided Noise Abatement                      |
| CBEC       | Columbia Basin Electric Cooperative                 |
| Council    | Oregon Energy Facility Siting Council               |
| CPR        | Cardiopulmonary Resuscitation                       |
| CSZ        | Cascadia Subduction Zone                            |
| CTUIR      | Confederated Tribes of Umatilla Indian Reservation  |
| CRPP       | Cultural Resources Protection Program               |
| dBA        | Decibels  |
| department | Oregon Department of Energy                         |
| DEQ        | Oregon Department of Environmental Quality          |
| DoD        | Department of Defense                               |
| DOGAMI     | Oregon Department of Geology and Mineral Industries |
| DSL        | Oregon Department of State Lands                    |
| EFSC       | Oregon Energy Facility Siting Council               |

|        |   |
|--------|---|
| EFU    | Exclusive Farm Use                              |
| EPA    | Environmental Protection Agency                 |
| ESCP   | Erosion and Sediment Control Plan               |
| FAA    | Federal Aviation Administration                 |
| GSU    | Generator Step-Up                               |
| HMA    | Habitat Mitigation Area                         |
| HMP    | Habitat Mitigation Plan                         |
| IBC    | International Building Code                     |
| ISO    | International Organization for Standardization  |
| I-84   | Interstate 84                                   |
| KOP    | Key Observation Point                           |
| kV     | Kilovolt(s)                                     |
| LCDC   | Land Conservation and Development Commission    |
| LOI    | Letter of Intent                                |
| LOS    | Level of Service                                |
| MBTH   | Maximum Blade Tip Height                        |
| MCCP   | Morrow County Comprehensive Plan                |
| MCE    | Maximum Considered Earthquake                   |
| MCZO   | Morrow County Zoning Ordinance                  |
| Met    | Meteorological Towers                           |
| mG     | Milligauss                                      |
| MVA    | Megavolt Ampere                                 |
| MW     | Megawatt(s)                                     |
| NOI    | Notice of Intent                                |
| NESC   | National Electrical Safety Code                 |
| NPDES  | National Pollutant Discharge Elimination System |
| NPS    | National Park Service                           |
| NRCS   | National Resource Conservation Service          |
| NRHP   | National Register of Historic Places            |
| NRO    | Noise Reduced Operation                         |
| NWC    | Northwest Consultants, Inc.                     |
| O&M    | Operations and Maintenance                      |
| OAR    | Oregon Administrative Rule                      |
| ODA    | Oregon Department of Agriculture                |
| ODFW   | Oregon Department of Fish and Wildlife          |
| ODOT   | Oregon Department of Transportation             |
| OPRD   | Oregon Parks and Recreation Department          |
| OR-207 | Oregon Route 207                                |
| ORBIC  | Oregon Biodiversity Information Center          |
| ORNHIC | Oregon Natural Heritage Information Center      |
| ORS    | Oregon Revised Statute                          |
| OSSC   | Oregon Structural Specialty Code                |
| OWRD   | Oregon Water Resources Department               |
| pASC   | Preliminary Application for Site Certificate    |

|       |   |
|-------|---|
| PGA   | Peak Ground Acceleration                          |
| PUC   | Oregon Public Utility Commission                  |
| RAI   | Request for Additional Information                |
| RNA   | Research Natural Area                             |
| SAG   | Special Advisory Group                            |
| SCADA | Supervisory Control and Data Acquisition          |
| SHPO  | Oregon State Historic Preservation Office         |
| SLIDO | Statewide Landslide Inventory Database for Oregon |
| SPCC  | Spill Prevention Control and Countermeasure       |
| TIA   | Traffic Impact Analysis                           |
| UBOC  | Umatilla Board of County Commissioners            |
| UC    | Unincorporated Community                          |
| UCCP  | Umatilla County Comprehensive Plan                |
| UCDC  | Umatilla County Development Code                  |
| UCDO  | Umatilla County Development Ordinance             |
| UEC   | Umatilla Electric Cooperative                     |
| UGB   | Urban Growth Boundary                             |
| USFS  | United States Forest Service                      |
| USFWS | United States Fish and Wildlife Service           |
| USGS  | United States Geological Survey                   |
| WGS   | Washington Ground Squirrel                        |
| WMMP  | Wildlife Monitoring and Mitigation Plan           |
| ZVI   | Zone of Visual Influence                          |

1 **I. INTRODUCTION**  
2

3 This final order approves an application for site certificate (ASC) for the construction and  
4 operation of the Wheatridge Wind Energy Facility (facility). The applicant is Wheatridge Wind  
5 Energy, LLC, a wholly-owned subsidiary of Swaggart Wind Power, LLC (the applicant or  
6 Wheatridge). This final order includes conditions of approval for inclusion in the site certificate  
7 to ensure or maintain compliance with applicable rules and standards during the construction,  
8 operation and retirement of the facility.  
9

10 A site certificate is a binding agreement between the State of Oregon and the applicant,  
11 authorizing the applicant to design, construct, operate, and retire a facility on an approved site,  
12 incorporating all conditions imposed by the Council on the applicant.<sup>1,2</sup> A site certificate issued  
13 by the Oregon Facility Siting Council (Council) binds the state and all counties, cities and  
14 political subdivisions of Oregon. Once the Council issues the site certificate, any affected state  
15 agency, county, city or political subdivision must, upon submission by the applicant of the  
16 proper applications and payment of the proper fees, but without hearing or other proceeding,  
17 promptly issue the permits, licenses and certificates addressed in the site certificate.<sup>3</sup> The  
18 Council has continued authority over the site for which the site certificate is issued and may  
19 inspect the site at any time in order to ensure that the facility is operated consistently with the  
20 terms and conditions of the site certificate.<sup>4</sup>  
21

22 The facility qualifies as an “energy facility” under the definition in ORS 469.300(11)(a)(J) as it is a  
23 proposed electric power generating plant with an average electric generating capacity of 35  
24 megawatts or more produced from wind energy at a single energy facility.<sup>5</sup> Approval of a site

---

<sup>1</sup> ORS 469.300(26).

<sup>2</sup> On the record of the public hearing, Ms. Gilbert/FGRV requested that the Council impose a condition restricting construction and construction impacts to the area within the site boundary. In response, on the record of the June 6, 2016 public hearing, the applicant stated that a specific condition limiting impacts to within the site boundary should not be required as this limitation is self-implementing through approval of the site boundary and site certificate. The department generally agreed with the applicant’s statement. Construction activities must be restricted to areas within the site boundary, which as defined at OAR 345-001-0010 means the perimeter of the site of the proposed energy facility, its related or supporting facilities, all temporary laydown and staging areas and all corridors and micrositing corridors. Once issued, the site certificate becomes a binding, contractual agreement between the certificate holder and the State of Oregon, which authorizes the certificate holder to design, construct, operate and retire a facility only on an approved site, incorporating all conditions imposed by the Council. Ms. Gilbert/FGRV also commented that the department “needs to monitor construction activities to assure that they do not extend beyond the stated site.” The department implements a compliance program for Council approved facilities to verify compliance with site certificate requirements. Therefore, the Council finds that no additional conditions are necessary to address Ms. Gilbert/FGRV’s concerns. WRWAPPDoc68 DPO Public Comment\_I. Gilbert 2016-05-19; WRWAPPDoc85 DPO Public Comment\_D. Petersen 2016-06-06.

<sup>3</sup> ORS 469.401(3).

<sup>4</sup> ORS 469.430.

<sup>5</sup> The definitions contained in ORS 469.300 and OAR 345-001-0010 apply to terms used in this proposed order.

1 certificate by the Council is required for the construction, operation, and retirement of energy  
2 facilities.<sup>6</sup>

3  
4 In addition to the conditions in this final order, the site certificate holder is subject to the  
5 conditions and requirements contained in the rules and standards of the Council and in local  
6 ordinances and state laws in effect on the date the site certificate is executed. Under ORS  
7 469.401(2), upon a clear demonstration of a significant threat to public health, safety, or the  
8 environment that requires application of later-adopted laws or rules, the Council may require  
9 compliance with such later-adopted laws or rules. The Council recognizes that many specific  
10 tasks related to the design, construction, operation, and retirement of a facility would be  
11 undertaken by the certificate holder's agents or contractors. Nonetheless, the certificate holder  
12 remains responsible for ensuring compliance with all provisions of the site certificate.

13  
14 The Council does not have jurisdiction over matters that are not included in and governed by  
15 the site certificate or amended site certificate, including design-specific construction or  
16 operating standards and practices that do not relate to siting, as well as matters relating to  
17 employee health and safety, building code compliance, wage and hour or other labor  
18 regulations, or local government fees and charges.<sup>7</sup>

19  
20 Based upon its review, including findings of fact, conclusions of law and conditions of  
21 compliance, the Council issues this final order and grants a site certificate for the Wheatridge  
22 Wind Energy Facility.

23  
24 This final order is subject to judicial review by the Oregon Supreme Court. Only a party to the  
25 contested case proceeding may request judicial review and the issues on appeal are limited to  
26 those raised by the parties to the contested case proceeding. A petition for judicial review must  
27 be filed with the Supreme Court within 60 days after the date of service of the Council's final  
28 order or within 30 days after the date of the petition for rehearing is denied or deemed  
29 denied.<sup>8</sup>

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<sup>6</sup> ORS 469.320.

<sup>7</sup> ORS 469.401(4).

<sup>8</sup> ORS 469.403.



1 **II. PROCEDURAL HISTORY**

2

3 **II.A. Notice of Intent**

4

5 On February 22, 2013, the applicant submitted to the department a Notice of Intent (NOI) to  
6 file an ASC. In anticipation of the NOI, on November 2, 2012 the Council appointed the Umatilla  
7 County Board of Commissioners and the Morrow County Court as Special Advisory Groups  
8 (SAGs), in accordance with ORS 469.480(1).<sup>9</sup> On March 13, 2013 the department issued public  
9 notice of the NOI to the Council’s general mailing list and to adjacent property owners as  
10 defined at OAR 340-020-0011(1)(f). Further, in accordance with OAR 345-020-0040, the  
11 department distributed the NOI to the SAGs and reviewing agencies, along with a  
12 memorandum to reviewing agencies requesting comment on the NOI. The department also  
13 published notice of the NOI on March 13, 2013 in the East Oregonian and The Heppner Gazette  
14 Times, newspapers of general circulation in the area of the proposed facility. The NOI comment  
15 deadline was April 15, 2013. Pursuant to OAR 345-015-0140, the department provided the  
16 applicant with copies of each public comment for consideration in the development of the ASC.

17

18 Pursuant to ORS 469.330(3) and OAR 345-015-0160(1) and (3), the department issued a project  
19 order on May 22, 2013, which specified the state statutes and administrative rules; and local,  
20 state, and tribal laws, regulations, ordinances and other requirements applicable to the siting of  
21 the proposed facility.

22

23 **II.B. Application for Site Certificate**

24

25 The department received the preliminary Application for Site Certificate (pASC) on December  
26 19, 2014. The department distributed the pASC to reviewing agencies and requested comments  
27 on the pASC no later than February 9, 2015. Additionally, the department posted an  
28 announcement on the department’s website, notifying the public that the pASC had been  
29 submitted.

30

31 Pursuant to OAR 345-015-0190(1), on February 17, 2015, the department determined the pASC  
32 to be incomplete and issued a Request for Additional Information (RAI-1). In accordance with  
33 the deadline provided by the department with its RAI-1, the applicant provided responses and  
34 revised exhibits on April 15, 2015. The department issued RAI-2 on June 5, 2015 and the  
35 applicant responded on June 23, 2015. After reviewing the revised exhibits, the department  
36 determined the pASC to be complete on July 1, 2015 and the applicant filed a complete ASC on  
37 July 13, 2015. Under OAR 345-015-0190(5), an ASC is complete when the department finds that  
38 the applicant has submitted information adequate for the Council to make findings or impose  
39 conditions on all applicable Council standards.

---

<sup>9</sup> WRWNOIDoc039, SAG Appointment Umatilla and Morrow Counties, 11-02-2012. Under ORS 469.480(1), the Council must designate as a Special Advisory Group the governing body of any local government within whose jurisdiction the facility is proposed to be located.

1 Public notice of the complete ASC was issued on July 20, 2015, with notice posted in the East  
2 Oregonian on July 21, 2015. The department held a public information meeting on the  
3 complete ASC on August 11, 2015 in Boardman, Oregon. Pursuant to OAR 345-015-0200, the  
4 department distributed copies of the complete ASC to reviewing agencies, along with a request  
5 for agency reports on the complete ASC no later than August 31, 2015. The department  
6 received comments from ten reviewing agencies, including the SAGs.

7  
8 Upon additional review, the department determined that additional information was necessary  
9 in order for the Council to make findings or impose conditions regarding Exhibit K (Land Use).  
10 On October 19, 2015 the department issued a supplemental information request to the  
11 applicant. The applicant responded with supplemental information related to Exhibit K on  
12 November 20, 2015. The department issued a second supplemental information request  
13 related to Exhibit K to the applicant on January 4, 2016. In response to that request, the  
14 applicant submitted a revised Exhibit K on February 3, 2016.

15  
16 On September 18, 2015, the Council appointed Julie Keil as the hearing officer to conduct the  
17 public hearing on the draft proposed order and to conduct the contested case proceeding.<sup>10</sup>  
18 On April 19, 2016, the Council appointed Gregory Frank to replace Ms. Keil as the hearing  
19 officer to conduct the public hearing and contested case proceeding.<sup>11</sup>

## 20 21 **II.C. Draft Proposed Order**

22  
23 On April 27, 2016, the department issued the draft proposed order for public comment; the  
24 Notice of Public Hearing was issued on April 27, 2016 and corrected amended Notice of Public  
25 Hearing was issued on May 16, 2016. The department also published notice of the Public  
26 Hearing on May 14, 2016 in the East Oregonian, a newspaper of general circulation in the area  
27 of the proposed facility. On May 19, 2016 and June 6, 2016, hearing officer Gregory Frank  
28 conducted public hearings on the draft proposed order in Boardman, Oregon.<sup>12</sup> The record of  
29 the public hearing closed on June 6, 2016 at the conclusion of the second public hearing, as  
30 provided in the public notice. The department received over forty comments on the record of  
31 the public hearing, including oral testimony received during the May 19 and June 6, 2016 public  
32 hearings. Appendix A of this final order includes an index of the comments submitted on the  
33 record. Issues raised within the Council's jurisdiction are addressed under the applicable  
34 standards section below. Issues raised that are outside the Council's jurisdiction or are not

---

<sup>10</sup> Because of the untimely death of this hearing officer, the Council was required to appoint a new hearing officer for this application. WRWAPPDoc039, Order Hearing Officer Appointment, 09-18-2015.

<sup>11</sup> WRWAPPDoc83 Order Hearing Officer Appointment, 2016-04-21

<sup>12</sup> Chair Beyeler and Council members Jenkins and Roppe attended the hearing on May 19, 2016 in person; Chair Beyeler attended the hearing on June 6, 2016 in person. Those Council members not in attendance were provided complete audio recordings of the hearing sessions.

1 applicable to the Council’s decision on this site certificate application are not further addressed  
2 in this final order.<sup>13</sup>

3  
4 The Council reviewed the draft proposed order and comments received on the record of the  
5 public hearing at its regularly scheduled Council meeting on June 17, 2016. After its review, the  
6 Council provided comments to the department and recommended that the department issue a  
7 proposed order.

8  
9 **II.D. Contested Case on Proposed Order**

10  
11 After consideration of all comments received and Council recommendations, the department  
12 issued a proposed order on August 5, 2016. On the same day, the department issued a Notice  
13 of Contested Case to all those who provided written or oral comment during the draft proposed  
14 order hearing phase.<sup>14</sup>

15  
16 Hearing Officer Frank received two requests for party status in the contested case.<sup>15</sup> Following  
17 a prehearing conference on September 23, 2016, and issuance of an *Amended Order on Party*  
18 *Status, Authorized Representatives and Issues for Contested Case* on November 14, 2016,  
19 Hearing Officer Frank granted party status to: (1) Irene Gilbert/Friends of the Grande Ronde  
20 Valley<sup>16</sup>; and, (2) Umatilla Electric Cooperative.<sup>17</sup> The applicant was considered a party under  
21 ORS 469.370(5); and the department participated in the proceeding pursuant to OAR 345-015-  
22 0080(2).

---

<sup>13</sup> Issues raised by T. Lindsay, W. Seitz and J. & A. Gould on the record of the public hearing with respect to real estate, property values, and financial losses from lack of wildlife protection are not within Council’s jurisdiction and are not considered in the final order. The issue raised by Ms. Gilbert/FGRV with respect to a request to develop a need standard for wind facilities is not relevant to the evaluation of this ASC. Comments to the DOE Legislative Oversight Committee from Mr. T. Lindsay, dated May 23, 2016, included with written comments received on June 6, 2016 from Ms. Gilbert/FGRV, relate to OAR 345-015-0220(5)(b) but do not raise an issue with an applicable Council standard the proposed facility must satisfy. WRWAPPDoc115 Public Comment\_T. Lindsay 2016-06-06; WRWAPPDoc86 Public Comment\_W. Seitz 2016-06-03; WRWAPPDoc100 Public Comment\_J&A Gould 2016-06-06;WRWAPPDoc100 Public Comment\_I. Gilbert 2016-06-06

<sup>14</sup> To raise an issue that may be the basis of a contested case proceeding, the issue must be within Council jurisdiction, the person must have raised the issue on the record of the public hearing, and the issue must have been raised with sufficient specificity to afford the Council, the department, and the applicant an adequate opportunity to respond. See ORS 469.370(3).

<sup>15</sup> To raise an issue that may be the basis of a contested case proceeding, the issue must be within Council jurisdiction, the person must have raised the issue on the record of the public hearing, and the issue must have been raised with sufficient specificity to afford the Council, the department, and the applicant an adequate opportunity to respond. See ORS 469.370(3).

<sup>16</sup> Ms. Gilbert was granted party status as an individual in the contested case and she served as the authorized representative for the Friends of the Grande Ronde Valley (FGRV), an organization granted separate party status in the contested case. The documents filed by Ms. Gilbert both during and following the contested case were submitted both on her own behalf and on behalf of FGRV. Therefore, Ms. Gilbert and FGRV are collectively referred to as Ms. Gilbert for purposes of this order.

<sup>17</sup> Umatilla Electric Cooperative was granted limited party status.

1  
2 In the November 14, 2016 *Amended Order on Party Status, Authorized Representatives and*  
3 *Issues for Contested Case*, Hearing Officer Frank issued an order identifying the following  
4 contested case issue:

- 5  
6 • Should the Gen-Tie Line be considered a related or supporting facility under ORS  
7 215.206 (if it exists), ORS 469.300(14) and (24) and OAR 345-001-0010(51)?  
8

9 Following the applicant’s Motion for Summary Judgement (Motion) filed on November 28,  
10 2016, by interim order issued December 6, 2016, Hearing Officer Frank provided parties an  
11 opportunity to provide additional written argument related to the Applicant’s Motion. By notice  
12 issued January 25, 2017, Hearing Officer Frank provided parties the opportunity to submit  
13 written comments related to two questions to be certified to the Council related to the  
14 interpretation of the phrase “proposed by the applicant” related to the evaluation of the sole  
15 contested case issue.  
16

17 Following receipt of responses from the parties, on February 7, 2017 Hearing Officer Frank  
18 requested Council review and certification of three questions to support the evaluation and  
19 legal interpretation related to the sole contested case issue. Following the Council’s review of  
20 the Hearing Officer Frank’s three certified questions at the February 23, 2017 Council meeting,  
21 during which the parties provided oral argument, the Council issued an Order on Certified  
22 Questions on March 14, 2017. On April 2, 2017, Hearing Officer Frank issued a Proposed  
23 Contested Case Order.  
24

25 Ms. Gilbert filed an exception to the Proposed Contested Case Order on April 2, 2017. The  
26 applicant filed a response to the exceptions on April 14, 2017. The Council reviewed the  
27 Proposed Contested Case Order, Exceptions and Responses on April 28, 2017. Following  
28 Council deliberation, the Council considered the draft final order prepared by staff and voted to  
29 adopt this final order and issue the attached site certificate.<sup>18</sup>  
30

### 31 **III. DESCRIPTION OF THE FACILITY**

32

33 The information presented in this section is based upon details provided in the ASC. Section  
34 III.A describes the location and site boundary of the facility and Section III.B describes the  
35 “energy” facility and related and supporting facilities.

#### 36 **III.A. Location and Site Boundary**

37

38 As explained in ASC Exhibit C and depicted in ASC Exhibit C Figures C-1 through C-5, the facility  
39 site boundary would be located on approximately 13,097 acres of private land, within Morrow  
40 and Umatilla counties, on which the applicant has negotiated or will negotiate long-term

---

<sup>18</sup> The site certificate is included as Attachment E to this order.

1 leases.<sup>19,20</sup> The site boundary includes the perimeter of the energy facility site and its related or  
2 supporting facilities, all temporary laydown and staging areas and all corridors proposed by the  
3 applicant.<sup>21</sup> As explained in ASC Exhibit C and depicted on ASC Exhibit C Figures C-5 through C-  
4 10, the perimeter of the related and supporting facilities to the energy facility within the site  
5 boundary includes the intraconnection transmission line corridor; an electrical collection  
6 system; collector substations; meteorological (met) towers; communication and supervisory  
7 control and data acquisition (SCADA) systems; operations and maintenance (O&M) buildings;  
8 new or improved access roads; and temporary construction areas.

9  
10 The energy facility would be comprised of up to 292 turbines divided into two groups,  
11 Wheatridge West and Wheatridge East, as presented in Figure 1 below. Wheatridge West  
12 would be located entirely within Morrow County, bisected by Oregon Highway 207,  
13 approximately 5 miles northeast of Lexington and approximately 7 miles northwest of Heppner.  
14 Wheatridge East would be located approximately 16 miles northeast of Heppner and includes  
15 land in both Morrow and Umatilla counties. Wheatridge West and Wheatridge East would be  
16 connected via 230 kV transmission line or “intraconnection” transmission line, a related and  
17 supporting facility to the energy facility. The site boundary for the intraconnection transmission  
18 line includes a 1,000 foot wide, up to 32-mile long corridor.<sup>22</sup>

---

<sup>19</sup> ASC, Exhibit K, p. 8.

<sup>20</sup> On the record of the June 6, 2016 public hearing, Ms. Gilbert/FGRV expressed concern that the applicant does not have legal authority to construct the proposed facility on the proposed site and that the site certificate cannot be issued until the applicant provides documentation confirming that landowners have agreed to allow development on their land. Pursuant to OAR 345-027-0020(5), prior to construction, the applicant would be required to provide to the department verification that they have obtained construction rights on the applicable parts of the site. This is a mandatory condition addressed in Section IV.A *General Standard of Review* of the proposed order and included as Mandatory Condition 3. WRWAPPDoc100 Public Comment\_I. Gilbert 2016-06-06.

<sup>21</sup> Pursuant to OAR 345-001-0010(55), the term “site boundary” means the perimeter of the site of a proposed energy facility and its related or supporting facilities, all temporary laydown and staging areas and all corridors proposed by the applicant. The term “energy facility site” means all land upon which an energy facility is located or proposed to be located. The term “energy facility” means only the electric power generating plant while the term “facility,” as defined in ORS 469.300 (14) means the energy facility together with any related or supporting facilities.

<sup>22</sup> On the record of the June 6, 2016 public hearing, Ms. Gilbert/FGRV requested inclusion of a condition limiting the proposed intraconnection transmission line to one line not to exceed 230 kV and requested a requirement be imposed for the line to be located underground due to significant farm and wildlife habitat impacts. Mandatory Condition 2 included in the proposed order would require the certificate holder to design, construct and operate the facility substantially as described in the site certificate, which would be consistent with the facility components as described in the ASC. It is the Council’s responsibility to review, evaluate and issue orders either approving or denying ASCs as put forth by an applicant; the Council does not have authority to propose alternatives such as one underground transmission line versus up to two, overhead parallel transmission lines, as proposed by the applicant. Section IV.E *Land Use* and Section IV.H *Fish and Wildlife Habitat* of the proposed order include the department’s evaluation of the proposed facility’s impact to farmland within and surrounding the proposed facility site boundary, and impacts to fish and wildlife habitat. The proposed order recommends that, subject to compliance with various conditions, the proposed facility would satisfy the Council’s Land Use and Fish and Wildlife Habitat standards. WRWAPPDoc100 DPO Public Comment\_I. Gilbert 2016-06-06.

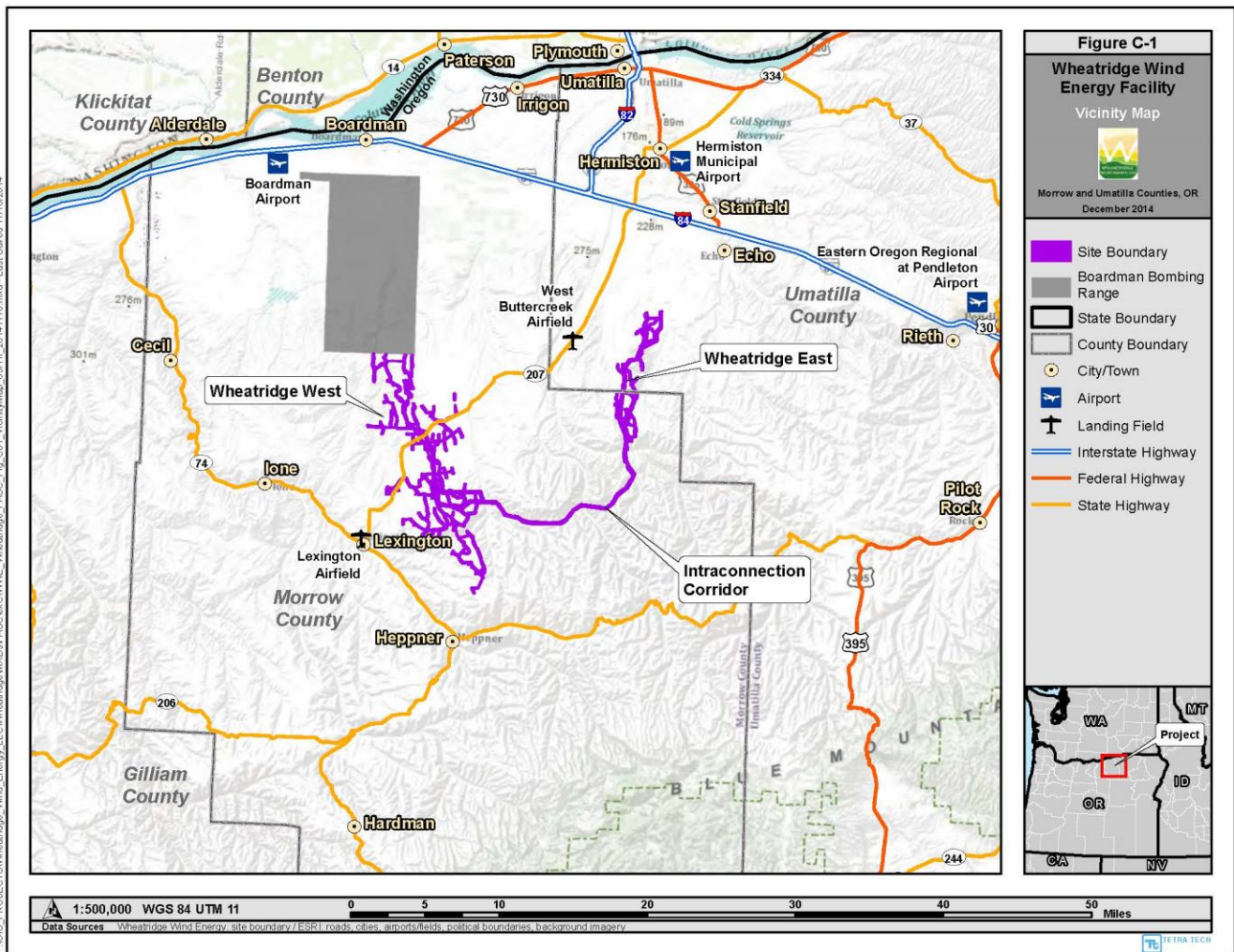
1 On the record of the public hearing, Ms. Gilbert/FGRV and T. Lindsay expressed concern that  
2 because the site boundary only includes the siting corridors, the applicant has underestimated  
3 the impacts of the proposed development, particularly indirect impacts on habitat and  
4 environment, and that the site boundary does not include access roads which are being  
5 changed.<sup>23</sup> In addition, Ms. Gilbert/FGRV provided her comments on the ASC submitted to the  
6 Umatilla County Planning Department in August 2015. In these comments, she explained that  
7 other applications show the site boundary as including the entire area within which the siting  
8 corridors are located and questioned how proposed facility vehicles would be restricted within  
9 the siting corridors. Ms. Gilbert/FGRV further expressed concern related to impacts not  
10 evaluated from vehicle transport on areas between the turbine strings which were not included  
11 in the site boundary. As noted above, issuance of the site certificate by the Council authorizes  
12 the certificate holder to design, construct, operate and retire a facility only on an approved site.  
13 The site certificate is a binding, contractual agreement between the certificate holder and the  
14 State of Oregon incorporating all conditions imposed by the Council.<sup>24</sup> If a site certificate holder  
15 wishes to place any portion of the facility, a related or supporting facility or construction area  
16 outside of the site boundary, it would be necessary to seek and obtain approval for an  
17 expansion of the site boundary through the Council's amendment process.  
18

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<sup>23</sup> WRWAPPDoc68 Public Comment\_I. Gilbert 2016-05-19; WRWAPPDoc100 Public Comment\_I. Gilbert 2016-06-06; WRWAPPDoc115 Public Comment\_T. Lindsay 2016-06-06.

<sup>24</sup> In response to Ms. Gilbert/FGRV's comment regarding impacts not evaluated from potential vehicle transport between turbine strings, the department noted that recommended Soil Protection Condition 6, as amended, would restrict vehicle use during O&M to constructed access roads. The Council agrees and imposes Soil Protection Condition 6 in the Final Order.

1 **Figure 1: Proposed Energy Facility Site Map**



2 In regards to proposed wind energy facilities, the site boundary establishes the “micrositing”  
 3 corridors within which the facility would be located. The Council has recognized the need for  
 4 wind energy developers to have flexibility to “microsite” the final location of wind turbines and  
 5 related infrastructure after issuance of a site certificate, based on final turbine selection,  
 6 geotechnical constraints, site-specific wind resource factors, avoidance of high-value wildlife  
 7 habitat, and the desire to reduce conflict with farming practices.

8  
 9 **III.B. The Facility**

10  
 11 The applicant provided information about the components of the facility in Exhibit B of the ASC.  
 12 The facility consists of up to 292 turbines with a combined peak generating capacity of up to  
 13 500 megawatts (MW). The applicant analyzed impacts for two different turbine models;  
 14 therefore, the actual nameplate capacity depends on the turbine model selected and the

1 number of turbines constructed. Selected turbines would range from 1.7 to 2.5 MW, with rotor  
2 diameters ranging from 337 to 393 feet and blades between 167 and 197 feet in length.<sup>25</sup>

3  
4 As explained above, the turbines would be located in two geographic groups, Wheatridge West  
5 and Wheatridge East, and would be connected via a 230 kV transmission line or  
6 “intraconnection” transmission line, proposed as a related and supporting facility to the energy  
7 facility.<sup>26</sup> The intraconnection transmission line, as further described below, would consist of up  
8 to 32 miles of up to two overhead, parallel transmission lines. Additional related and supporting  
9 facilities to the energy facility include an electrical collection system; collector substations;  
10 meteorological (met) towers; communication and supervisory control and data acquisition  
11 (SCADA) systems; operations and maintenance (O&M) buildings; new or improved access  
12 roads; and, temporary construction areas.<sup>27</sup>

13 *Energy Facility*<sup>28</sup>

14  
15 The energy facility includes individual wind turbines, each consisting of a nacelle, a three-  
16 bladed rotor, turbine tower and foundation. The nacelle houses the equipment such as the  
17 gearbox, generator, brakes, and control systems for the turbine. The total height of the turbine  
18 tower and blades (tip-height) is expected to be between 431 and 476 feet, depending on the

---

<sup>25</sup> ASC, Exhibit B, p.4.

<sup>26</sup> On the record of the public hearing, Ms. Gilbert/FGRV and Mr. T. Lindsey disagreed that the proposed facility represents a single facility and expressed a belief, based on several reasons provided, that the proposed facility should be sited as two separate energy facilities under two separate ASCs. Ms. Gilbert/FGRV further requested that the Council impose a condition to demonstrate that the proposed facility represents a single and not two individual developments. In response to the request, the applicant stated that there is not an applicable rule that requires an evaluation of whether a proposed facility should be considered a single facility, and that if such rule is requested would not be part of the ASC process. The department generally agreed with the applicant’s response. In this case, the applicant proposed the facility as a single development and the Council must review the application it receives. The Council does not consider the condition requested by Ms. Gilbert/FGRV to be necessary or required to satisfy an applicable Council standard because there are no applicable standards or statutes that require a single energy facility to be geographically contiguous or that prohibits an applicant from proposing an energy facility as a single energy facility under a single ASC. WRWAPPDoc68 Public Comment\_I. Gilbert 2016-05-19; WRWAPPDoc100 Public Comment\_I. Gilbert 2016-06-06; WRWAPPDoc115 Public Comment\_T. Lindsay 2016-06-06. WRWAPPDoc85 Public Comment\_(Applicant)\_D. Petersen 2016-06-06.

<sup>27</sup> On the record of the public hearing, Ms. Gilbert/FGRV commented that construction yards and construction impacts need to be limited to the designated siting corridors. Ms. Gilbert/FGRV further expressed that a condition is needed requiring mitigation of temporary and permanent impacts from the four proposed construction yards. As explained in ASC Exhibit B, the facility includes up to four temporary yards for material and equipment staging during construction. The construction yards are proposed to be located within the site boundary. If construction yards located outside of the site boundary were proposed for use after issuance of the site certificate, the site certificate holder would be required to seek approval through the site certificate amendment process. As presented in ASC Exhibits C and P, the proposed construction yards were included in the estimated disturbance and habitat impact calculations. Moreover, recommended Land Use Condition 8 requires the certificate holder to locate temporary construction yards within the future footprint of permanent structures, to the extent practicable; Mandatory Condition 6 and Fish and Wildlife Condition 11 would ensure revegetation of all temporarily disturbed areas during construction. WRWAPPDoc68 DPO Public Comment\_I. Gilbert 2016-05-19; WRWAPPDoc100 Public Comment\_I. Gilbert 2016-06-06.

<sup>28</sup> The description of the energy facility included here is based on information from Exhibit B of the ASC.



1 turbine model selected. The foundation design for each turbine is determined based on site-  
 2 specific geotechnical information and structural loading requirements of the selected turbine  
 3 model.

4  
 5 The base of each tower foundation would require a cleared area (typically a gravel pad) up to  
 6 80 feet in diameter. The turbines would be grouped in linear “strings” within the micrositing  
 7 corridor and interconnect with a 34.5 kV electrical collection system (described below). Most  
 8 turbine types include a generator step-up (GSU) transformer installed at the base of the tower  
 9 that would be used to increase the voltage of the turbine to that of the electrical collection  
 10 system. Table 1 shows the range of turbine specifications the applicant used to determine  
 11 potential impacts.

**Table 1: Range of Turbine Specifications used for Impact Evaluations<sup>29</sup>**

| Specification                                 | Minimum | Maximum |
|---|---------|---------|
| Peak Generating Capacity                      | 1.7 MW  | 2.5 MW  |
| Blade Length                                  | 171 ft. | 198 ft. |
| Hub Height                                    | 262 ft. | 278 ft. |
| Rotor Diameter (Rotor Swept Height)           | 337 ft. | 393 ft. |
| Total Height (tower height plus blade length) | 431 ft. | 476 ft. |

13  
 14 *Related or Supporting Facilities<sup>30</sup>*

15  
 16 The facility includes the following related or supporting facilities:

- 17
- 18 • Electrical Collection System (includes up to 88 miles of mostly underground 34.5 kV  
 19 collector lines)
- 20 • Up to three collector substations
- 21 • Up to 32 miles of up to two overhead, parallel 230 kV transmission lines
- 22 • Up to 12 permanent meteorological (met) towers
- 23 • Communication and Supervisory Control and Data Acquisition (SCADA) System
- 24 • Up to two operations and maintenance (O&M) buildings
- 25 • Up to 73 miles of new or improved access roads
- 26 • Additional temporary construction areas (including staging areas and one or more  
 27 temporary concrete batch plant areas)
- 28
- 29
- 30
- 31

---

<sup>29</sup> ASC, Exhibit B, p.4.

<sup>30</sup> The description of the related and supporting facilities included here is based on the information in Exhibit B of the ASC.

1 Electrical Collection System

2

3 The applicant received approval to construct and install an electrical collection system including  
4 up to 88 miles of mostly underground 34.5 kV collector lines. As explained in Exhibit B, between  
5 the turbine and the pad-mounted GSU transformer, electrical connections would be located  
6 underground or in enclosed junction boxes. From the GSU transformer to the collector lines the  
7 connections would be installed along and between the turbine strings to collect power  
8 generated by each wind turbine and to route the power to one of three collector substations,  
9 which would step up the power from 34.5 kV to 230 kV.

10

11 The applicant states that collector lines would be constructed underground to the extent  
12 possible in trenches approximately three-feet wide and not less than two- to three-feet deep,  
13 generally alongside access roads, to minimize ground disturbance. The applicant explains that  
14 where land use and soil conditions make a buried depth of three-feet infeasible, collector lines  
15 may be buried at a depth of less than three feet, while still adhering to National Electrical Safety  
16 Code (NESC) standards. Collector lines may need to be run overhead in situations where a  
17 buried cable would be infeasible or would create unnecessary impacts, such as at stream or  
18 canyon crossings. The applicant explains in Exhibit B that overhead collector Lines would be  
19 supported by a wooden or steel pole structure. Each support pole would be buried  
20 approximately 6 feet in the ground and would extend to a height of approximately 60 feet  
21 above ground, spaced 100 to 200 feet apart. Collector lines are only anticipated to potentially  
22 require overhead placement in Wheatridge West. Based on existing topographic data, the  
23 facility could potentially include up to 10.8 miles of overhead collector lines; however, the  
24 specific locations of overhead collector lines will not be known until site geotechnical work has  
25 been completed.

26

27 The total length of collector lines needed depends on the turbine model and number of  
28 turbines constructed. With the use of the GE 1.7-103 layout, approximately 88 miles of collector  
29 lines would be needed, while approximately 80 miles would be needed for the GE 2.5-120  
30 layout.

31

32 Collector Substations

33

34 As explained in Exhibit B, the applicant would construct up to two substations within  
35 Wheatridge West and one substation within Wheatridge East. Each collector substation would  
36 be located on a two- to five-acre site, enclosed by a locked eight-foot tall wire mesh fence. Each  
37 substation would consist of transformers, transmission line termination structures, a bus bar,  
38 circuit breakers and fuses, control systems, meters, and other equipment. Substation sites  
39 would be cleared and graded, with a bed of crushed rock applied for a durable surface.

40

41 230 kV Transmission Line

42

43 The applicant would construct and operate one or two parallel overhead 230 kV  
44 intraconnection transmission lines supported by H-frame or monopole structures constructed

1 of either wood or steel that would extend 24.5 to 31.5 miles in length, depending on the route  
2 option selected. The 230 kV overhead transmission line structures would be approximately 60  
3 to 150 feet tall and spaced approximately 400 to 800 feet apart depending on the terrain. Each  
4 transmission line would require acquisition of an approximately 150-foot wide right-of-way  
5 from private landowners.

6  
7 As described in Exhibit B, the applicant would select among four routing options for the  
8 intraconnection transmission line, as follows:

- 9  
10 • Option 1: Two Project Substations to Longhorn (see ASC, Exhibit C, Figure C-9)  
11  
12 ○ This option would run from Substation 3 in Wheatridge East to Substation 1 in  
13 Wheatridge West and then to the proposed UEC/CB Strawberry substation, just  
14 to the west of Wheatridge West, for interconnection to a UEC or UEC/CB  
15 operated Gen-tie Line to the proposed BPA Longhorn substation. The  
16 intraconnection line route would be 31.5 miles (50.5 kilometers) in length.  
17  
18 • Option 2: Three Project Substations to Longhorn  
19  
20 ○ This option would run from Substation 3 in Wheatridge East to Substation 2b in  
21 Wheatridge West, then on to Substation 2a in Wheatridge West, and then to the  
22 proposed UEC/CB Strawberry substation, just west of Wheatridge West, for  
23 interconnection to a UEC or UEC/CB operated Gen-tie Line to the proposed BPA  
24 Longhorn substation. The intraconnection line route would be 31.3 miles (50.3  
25 kilometers) in length.  
26  
27 • Option 3: Two Project Substations to Stanfield (see ASC, Exhibit C, Figure C-10)  
28  
29 ○ This option would run from Substation 1 in Wheatridge West to Substation 3 in  
30 Wheatridge East for interconnection to a UEC operated Gen-tie Line to the  
31 proposed BPA Stanfield substation. The intraconnection line route would be 24.5  
32 miles (39.4 kilometers) in length.  
33  
34 • Option 4: Three Project Substations to Stanfield  
35  
36 ○ This option would run from Substation 2a in Wheatridge West to Substation 2b  
37 in Wheatridge West, and then to Substation 3 in Wheatridge East for  
38 interconnection to a UEC operated Gen-tie Line to the proposed BPA Stanfield  
39 substation. The intraconnection line route would be 27.8 miles (44.7 kilometers)  
40 in length.  
41

42 A corridor assessment was included in Exhibit B pursuant to OAR 345-021-0010(1)(b)(D). A  
43 corridor assessment was required because the facility includes as a related or supporting facility

1 a transmission line that, by itself, would be an energy facility under the definition in ORS  
2 469.300.

3  
4 As explained above, the site boundary includes an intraconnection corridor. The  
5 intraconnection corridor is approximately 1,000-feet in width and includes all locations where  
6 the four transmission line route options would be located. The four transmission line route  
7 options range in length from 24.5 to 31.5 miles and would follow the same alignment for  
8 approximately 18 miles from the Wheatridge East substation to the crossing at Sand Hollow  
9 Road. For the remainder of the route, Options 1 and 3 would traverse the same alignment, with  
10 Option 1 extending 7 miles longer than Option 3; Option 2 and 4 would traverse the same  
11 alignment, with Option 2 extending 3.5 miles longer than Option 4. Option 1 and 2 would differ  
12 for an approximately 4 mile segment located between Sand Hollow Road and the Wheatridge  
13 West substation (primary), with Option 2 traversing from Sand Hollow Road through the  
14 alternative (2b) Wheatridge West substation to the primary (1) Wheatridge West substation.  
15 The four routing options are presented on ASC Exhibit C Figures C-4a – C-4d.

16  
17 As presented in the ASC, to characterize existing conditions and evaluate compliance with each  
18 Council standard, the applicant conducted surveys and modeling within the intraconnection  
19 corridor, which as described above is included in the site boundary and includes all four  
20 transmission line route options. Surveys and modeling conducted within and extending up to 1-  
21 mile from the intraconnection corridor included:

- 22
- 23 • Field reconnaissance surveys for potential landslide, slope stability, soil cover, and  
24 topography;
  - 25 • Soil surveys using the soil survey geo database for Morrow and Umatilla counties;
  - 26 • Field investigations for delineation of wetlands and other waters of the United States;
  - 27 • Habitat mapping;
  - 28 • Special status wildlife species, special status plant, and bat surveys;
  - 29 • Avian use, raptor nest, and eagle nest surveys;
  - 30 • Golden eagle nest monitoring and golden eagle nest telemetry studies;
  - 31 • Field archeological and cultural resource surveys;
  - 32 • Noise modeling; and,
  - 33 • Electric and magnetic field modeling
- 34

35 The applicant explains that it selected the route(s) in order to minimize or avoid impacts to  
36 wildlife, habitat and other sensitive resources.<sup>31</sup> The ASC states that the proposed 230 kV  
37 transmission line would avoid Category 1 habitat, avoid protected areas as described in OAR  
38 345-022-0040, avoid areas where historical, cultural or archaeological resources are likely to  
39 exist, and avoid seismic, geological and soils hazards.

40  
41 As presented in ASC Exhibits C, *Project Location*, P, *Fish and Wildlife Habitat*, and K, *Land Use*,  
42 the applicant estimated temporary and permanent disturbance impacts based on Options 1 and

---

<sup>31</sup> ASC, Exhibit B, p.10.

1 3, representing the longest (31.5 miles) and shortest (24.5) alignments. On the record of the  
2 June 6, 2016 public hearing, Ms. Gilbert/FGRV expressed concern that only two of the proposed  
3 line options were analyzed, and that length of line is not an indicator of more or less significant  
4 impacts. Ms. Gilbert/FGRV further stated that “absent a review of all lines, there is no way of  
5 determining which line has the fewest impacts.”<sup>32</sup>

6  
7 While the applicant would utilize only one of the proposed transmission line routes once the  
8 facility design and layout are finalized, the ASC presents four transmission line route options to  
9 allow flexibility in the final design following issuance of a site certificate. This approach is  
10 allowed by Council statutes and rules provided the applicant has demonstrated that each  
11 transmission line routing option complies with all applicable standards. The Council standards  
12 do not require that an applicant identify, for purposes of Council approval, the route with the  
13 fewest impacts.

14  
15 The applicant elected to present disturbance impacts for the longest and shortest alignments,  
16 described in ASC Exhibit B as representing the greatest and least impacts. However, the ASC  
17 presents results of field surveys and modeling for the entire intraconnection corridor. In  
18 contrast to Ms. Gilbert/FGRV’s comment, based on the analysis presented in the ASC, the  
19 Council finds that with the imposed conditions of approval, each of the four proposed  
20 transmission line routes satisfies the applicable Council standards.

21  
22 *Meteorological Towers*

23  
24 The applicant would construct and operate up to 12 permanent met towers. Up to five met  
25 towers would be sited in Wheatridge East and up to seven met towers would be sited in  
26 Wheatridge West for the collection of wind speed and direction data. Each met tower would  
27 have a free-standing, non-guyed design and be approximately 328 feet (100 meters) in height.  
28 Installation of permanent met towers would result in approximately 98-feet (30-meters) in  
29 diameter of temporary land disturbance per tower and approximately 32-feet (10-meter) in  
30 diameter of permanent land disturbance per tower. Permanent met towers would be fitted  
31 with safety lighting and paint as required by the Federal Aviation Administration (FAA).

32  
33 *Communication and SCADA System*

34  
35 The applicant would install and operate a communication system, consisting of fiber optic and  
36 copper communication lines that would connect the turbines, met towers, and substations to  
37 the O&M buildings. A SCADA system would be installed in the O&M buildings to enable remote  
38 operation to collect operating data for each wind turbine, and to archive wind and performance  
39 data. SCADA system wires would be collocated with the collector lines both in the underground  
40 trenches and overhead, if necessary.

41  
42  

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<sup>32</sup> WRWAPPDoc100 DPO Public Comment\_I. Gilbert 2016-06-06

1 O&M Buildings

2

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

12

13 Access Roads

14

15 Primary access to the facility site would be from Interstate 84 (I-84) via Bombing Range Road or  
16 Oregon Route 207 (OR-207). The applicant would complete improvements to existing public  
17 roads to accommodate construction activities, including flattening crests or filling dips,  
18 widening sharp corners, or adding road base material; the applicant would consult with the  
19 appropriate county road master on specific improvements prior to construction. The applicant  
20 explains that upgrades to existing roads would be done according to applicable state and  
21 county road standards and after consultation with Morrow and Umatilla County staff. The  
22 applicant would implement a road use agreement with each county to specify requirements,  
23 including that all existing public roads used to access the site would be left in as good or better  
24 condition than that which existed prior to the start of construction.

25

26 As explained in Exhibit B, access to the turbines, construction yards, substations, and O&M  
27 buildings would be from a network of private access roads to be constructed or improved by  
28 the applicant. The applicant would grade and gravel all newly constructed and improved site  
29 access roads to meet load requirements for heavy construction equipment, as necessary.  
30 Following turbine construction, the applicant would narrow the site access roads for use during  
31 operations and maintenance. The additional disturbed width required during construction  
32 would be restored following the completion of construction by removing gravel surfacing,  
33 restoring appropriate contours with erosion and stormwater control best management  
34 practices (BMPs), decompacting as needed, and revegetating the area appropriately.

35

36 The total mileage of access roads would range between 65 and 73 miles depending on the  
37 turbine option chosen. The GE 2.5-120 layout would require approximately 65 miles of access  
38 roads, of which nearly 53 miles would be new. The remaining 12 miles are existing roads that  
39 the applicant would substantially modify in connection with the construction of the proposed  
40 facility. The GE 1.7-103 layout would require approximately 73 miles of access roads, of which

1 approximately 61 miles would be new, and 12 miles would be improvements to existing  
2 roads.<sup>33</sup>

3  
4 Temporary access roads would also be needed for the construction of the intraconnection  
5 transmission line(s). The applicant indicated that the intraconnection transmission line(s) can  
6 be constructed and maintained using only large trucks rather than heavy construction cranes,  
7 and that construction would take place during the dry time of year when the ground surface is  
8 hard enough to support those vehicles. Therefore, the applicant would not construct  
9 permanent access roads for the interconnection transmission lines. The total mileage of the  
10 temporary access roads needed for constructing the intraconnection transmission line(s) would  
11 depend on the intraconnection line route option chosen. The shortest route would require  
12 approximately 22.8 miles of access roads, while the longest would require approximately 25.5  
13 miles.

#### 14 Additional Construction Yards

15  
16  
17 The applicant would develop up to four temporary construction yards within the site boundary  
18 to facilitate the delivery and assembly of material and equipment. The construction yards  
19 would also be used for temporary storage of diesel and gasoline fuels, which would be placed in  
20 an above-ground 1,000-gallon diesel and 500-gallon gasoline tank, within designated secondary  
21 containments areas. Each construction yard would occupy between 15 and 20 acres, and would  
22 be graded and gravel surfaced. As stated in Exhibit B, the applicant would restore all  
23 construction yards to pre-construction conditions unless an agreement with the landowner  
24 leads to some or all of the construction yard being retained after construction. In addition, the  
25 applicant would utilize one or more temporary concrete batch plant areas, to be located within  
26 the construction yard area. The temporary concrete batch plants would be permitted and  
27 operated by the selected contractor.

#### 28 29 **IV. EVALUATION OF COUNCIL STANDARDS**

30  
31 As discussed above, ORS 469.320 requires a site certificate from the Council before  
32 construction of a “facility.” ORS 469.300(14) defines “facility” as an “energy facility together  
33 with any related or supporting facilities.” The Wheatridge Wind Energy Facility qualifies as an  
34 “energy facility” under the definition in ORS 469.300(11)(a)(J).

35  

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<sup>33</sup> On the record of the June 6, 2016 public hearing, Ms. Gilbert/FGRV commented that “the area of all roads being constructed or improved must be considered as part of the “site” and the area impacted must be included in the site as well as mitigation for permanent and temporary impacts.” New roads or existing roads that would be substantially modified in connection with the facility have been included as a related and supporting facilities. Recommended Soil Protection Condition 6, as amended in the proposed order, would restrict vehicle use during operation to constructed access roads and ensure that if roads not included in the ASC were needed to support facility construction or operation, that the certificate holder submit a request for and receive approval of an amendment to the site certificate. WRWAPPDoc100 DPO Public Comment\_I. Gilbert 2016-06-06.

1 To issue a site certificate for a proposed facility, the Council must determine that “the facility  
2 complies with the applicable standards adopted by the Council pursuant to ORS 469.501 or the  
3 overall public benefits of the facility outweigh any adverse effects on a resource or interest  
4 protected by the applicable standards that the facility does not meet.”<sup>34</sup> The Council must also  
5 determine that the proposed facility complies with all other applicable Oregon statutes and  
6 administrative rules, as identified in the project order, excluding requirements governing design  
7 or operational issues that do not relate to siting<sup>35</sup> and excluding compliance with requirements  
8 of federally-delegated programs.<sup>36</sup> Nevertheless, the Council may consider these programs in  
9 the context of its own standards to ensure public health and safety and protection of the  
10 environment.<sup>37</sup>

11  
12 Under ORS 469.310, the Council is charged with ensuring that the “siting, construction and  
13 operation of energy facilities shall be accomplished in a manner consistent with protection of  
14 the public health and safety.” ORS 469.401(2) further provides that the Council must include in  
15 the site certificate “conditions for the protection of the public health and safety,” for the time  
16 for completion of construction, and to ensure compliance with the standards, statutes and rules  
17 described in ORS 469.501 and ORS 469.503.”<sup>38</sup> The Council implements this statutory  
18 framework and ensures the protection of public health and safety by adopting findings of fact,  
19 conclusions of law, and conditions of approval concerning the proposed facility’s compliance  
20 with the Council’s Standards for Siting Facilities at OAR 345, Divisions 22, 24, 26, and 27.

21  
22 **IV.A. General Standard of Review [OAR 345-022-0000]**

23  
24 *(1) To issue a site certificate for a proposed facility or to amend a site certificate, the*  
25 *Council shall determine that the preponderance of evidence on the record supports the*  
26 *following conclusions:*

27  
28 *(a) The facility complies with the requirements of the Oregon Energy Facility Siting*  
29 *statutes, ORS 469.300 to ORS 469.570 and 469.590 to 469.619, and the standards*  
30 *adopted by the Council pursuant to ORS 469.501 or the overall public benefits of the*  
31 *facility outweigh the damage to the resources protected by the standards the facility*  
32 *does not meet as described in section (2);*

33

---

<sup>34</sup> ORS 469.503(1).

<sup>35</sup> As stated above, such matters include design-specific construction or operation standards and practices that do not relate to siting, as well as matters relating to employee health and safety, building code compliance, wage and hour or other labor regulations, or local government fees and charges.

<sup>36</sup> ORS 469.401(4); ORS 469.503(3).

<sup>37</sup> The Council does not have jurisdiction over matters that are not included in and governed by the site certificate or amended site certificate. However, the Council may rely on the determinations of compliance and the conditions in the permits issued by these state agencies and local governments in deciding whether the facility meets other standards and requirements under its jurisdiction.

<sup>38</sup> ORS 469.401(2).



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

10           \* \* \*

11  
12           ***(4) In making determinations regarding compliance with statutes, rules and ordinances***  
13           ***normally administered by other agencies or compliance with requirement of the Council***  
14           ***statutes if other agencies have special expertise, the Department of Energy shall consult***  
15           ***such other agencies during the notice of intent, site certificate application and site***  
16           ***certificate amendment processes. Nothing in these rules is intended to interfere with the***  
17           ***state’s implementation of programs delegated to it by the federal government.***

18  
19           **Findings of Fact**

20  
21           OAR 345-022-0000 provides the Council’s General Standard of Review and requires the Council  
22           to find that a preponderance of evidence on the record supports the conclusion that the facility  
23           complies with the requirements of the Oregon Energy Facility Siting statutes and the siting  
24           standards adopted by the Council and that the facility complies with all other Oregon Statutes  
25           and administrative rules identified in the project order, as amended, and as applicable to the  
26           issuance of a site certificate for the proposed facility.

27  
28           The Council adopts the following findings of fact and conclusions of law based on its evaluation  
29           and consideration of the facility’s compliance with all statutes, administrative rules and  
30           ordinances applicable to the issuance of this site certificate. As staff to and on behalf of the  
31           Council, the department consulted with other agencies during the NOI and ASC processes to aid  
32           in the evaluation of the facility’s compliance with statutes, rules and ordinances otherwise  
33           administered by other agencies. Additionally, the Council relied upon the reviewing agencies’  
34           special expertise in evaluating the facility’s compliance with the requirements of the Council’s  
35           standards.

36  
37           OAR 345-022-0000(2) and (3) apply to ASCs where an applicant has shown that the proposed  
38           facility cannot meet Council standards or has shown that there is no reasonable way to meet  
39           the Council standards through mitigation or avoidance of the damage to protected resources;  
40           and, for those instances, establish criteria for the Council to evaluate in making a balancing  
41           determination. The applicant does not assert, and the Council does not find, that the facility  
42           cannot meet an applicable Council standard. Therefore, OAR 345-022-0000(2) and (3) do not  
43           apply to this review.

44

1 *Certificate Expiration [OAR 345-027-0000]*  
2

3 Under OAR 345-015-0085(9), the site certificate is effective upon execution by the Council Chair  
4 and the applicant. ORS 469.370(12) requires the Council to “specify in the site certificate the  
5 date by which construction of the facility must begin.” ORS 469.401(2) requires that the site  
6 certificate contain a condition “for the time for completion of construction.” Under OAR 345-  
7 027-0000, the certificate holder must begin construction on the facility no later than the  
8 construction beginning date specified by Council in the site certificate. “Construction” is defined  
9 in ORS 469.300(6) and OAR 345-010-0010(12) to mean “work performed on a site, excluding  
10 surveying, exploration or other activities to define or characterize the site, the cost of which  
11 exceeds \$250,000.”  
12

13 The applicant requested to construct the facility in one or more phases. The language in Section  
14 6.0 of Exhibit B of the ASC could be interpreted as the applicant requesting to begin  
15 construction no later than six years after the issuance of the site certificate. The applicant’s  
16 request noted that construction of the planned Bonneville Power Administration (BPA)  
17 Longhorn and/or Stanfield substations, into which the facility would interconnect to the grid, is  
18 dependent on BPA, which is outside the control of Wheatridge and requires approximately a 3-  
19 year lead time to procure a 230 kV to 500 kV step-up transformer.<sup>39</sup> The applicant also noted  
20 that market demand for renewable power is expected to significantly increase in 2020. The  
21 applicant also requested phased construction due to constraints in wind turbine delivery  
22 schedule, the normal rate of wind farm construction, and the size of off-take agreements with  
23 purchasers of the wind power. The applicant describes that phased construction would allow  
24 for each phase to satisfy incremental market demand, and serve power to different customers,  
25 and possibly different interconnections.  
26

27 The department noted that the applicant elected to exclude the interconnection line and  
28 interconnection with BPA’s system from consideration in the ASC. In addition, while each  
29 application is evaluated on its own facts, the Council has recently required that in most  
30 instances construction of a wind power facility must begin within three years after the effective  
31 date of the site certificate. If the applicant cannot begin construction within three years of the  
32 effective date of the site certificate, the applicant could apply for an amendment of the site  
33 certificate to extend the deadline for beginning construction and a corresponding extension of  
34 the completion deadline for the facility. The Council may grant an extension of the deadline for  
35 completing construction in accordance with OAR 345-027-0030 or any successor rule in effect  
36 at the time the request for extension is submitted. An amendment process provides the  
37 opportunity to review proposed changes under the rules and regulations in effect at the time of  
38 the amendment request and to determine whether any change in circumstances affect a  
39 previous Council finding. A request to begin construction within a longer timeframe must be  
40 balanced against potential changes in the existing environment (such as wildlife habitat) and in  
41 land use ordinances and Council standards in the interim as well as the site certificate holder’s  
42 opportunity to request an extension.

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<sup>39</sup> ASC, Exhibit B, p. 19.

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It is the Council’s position that the applicant has not provided sufficient evidence to justify a six-year deadline after issuance of the site certificate for the applicant to begin construction. Instead, the Council sets a three-year deadline after issuance of the site certificate for the applicant to begin construction, and a six year deadline after issuance of the site certificate to complete construction.

On the record of the June 6, 2016 public hearing, the Morrow County Planning Department, on behalf of the Morrow County Court, expressed that the three-year construction commencement deadline established in recommended General Standard of Review Condition 1 of the draft proposed order, “does not give consideration to the applicant’s evidence that a longer lead in time is reasonable.” As described above, ASC Exhibit B presents reasons the applicant requests a 6-year construction commencement deadline including phased construction, the normal rate of wind farm construction, the size of off-take agreements with purchasers of the wind power, and forecasted demand in 2020. However, based on the applicant’s reasoning provided in ASC Exhibit B, the Council does not consider a longer construction commencement deadline to be necessary. Specifically, based on the reasons provided by the applicant, the Council was unable to determine how construction would be phased, how the requested timeframes aligned with other wind farms to substantiate the statement that the request represents the “normal rate of wind farm construction”, or how the requested timeframe would provide and allow for the applicant to secure take-off agreements.

Morrow County further suggested that due to recent adoption of higher renewable energy requirements and the number of recent site certificate amendment requests for extension of the construction commencement and completion deadlines, the Council should consider a 4 ½ year construction commencement deadline.<sup>40</sup> On the record of the June 6, 2016 public hearing, the applicant concurred with Morrow County’s comments on the construction commencement deadline. Neither Morrow County nor the applicant provided detail or further explanation of why the recently passed higher renewable energy requirements warrant a longer construction commencement deadline.<sup>41</sup> Moreover, if the site certificate were issued, likely at the earliest, in 2017, that provides through 2020 to start construction and through 2023 to complete construction, which appears to align with future renewable portfolio standard dates (2020 and 2025) and would allow immediate and incremental delivery of service from the proposed facility to the grid. In response to Morrow County’s comment on the record of the public hearing, the department noted that while amendment requests have recently been received requesting construction commencement deadline extensions, the amendment requests have often included other site certificate changes and were required to re-evaluate compliance with all applicable standards and rules. Furthermore, as described above, the department viewed the availability of process for a certificate holder to request an amendment to extend the construction start deadline as justification for the Council to impose the recommended 3 year

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<sup>40</sup> WRWAPPDoc117 DPO SAG Comment (Morrow County Court) 2016-06-06  
<sup>41</sup> WRWAPPDoc117 DPO SAG Comment (Morrow County Court) 2016-06-06

1 deadline. The Council agrees with the department’s evaluation of construction deadlines, and in  
2 compliance with OAR 345-027-0000, adopts the following conditions:

3  
4 **General Standard Condition 1:** The certificate holder shall begin construction of the  
5 facility within three years after the effective date of the site certificate. Under OAR 345-  
6 015-0085(9), the site certificate is effective upon execution by the Council chair and the  
7 applicant.

8  
9 **General Standard Condition 2:** The certificate holder shall complete construction of the  
10 facility within six years after the effective date of the site certificate.

11  
12 *Mandatory Conditions in Site Certificates [OAR 345-027-0020]*

13  
14 OAR 345-027-0020 lists certain conditions that the Council must adopt in every site certificate.  
15 Some mandatory conditions directly implement a Council standard and are therefore applied in  
16 this proposed order within the discussion of the relevant standard. In addition, pursuant to OAR  
17 345-027-0020(10), the Council shall include as conditions in the site certificate all  
18 representations in the ASC and supporting record the Council deems to be binding  
19 commitments made by the applicant. Mandatory conditions that are not otherwise addressed  
20 in the evaluation of compliance with specific standards are discussed below, in the context of  
21 the Council’s General Standard of Review. As provided in OAR 345-027-0020(1), “the Council  
22 shall not change the conditions of the site certificate except as provided for in OAR Chapter  
23 345, Division 27.”

24  
25 The following are mandatory conditions required pursuant to OAR 345-027-0020:

26  
27 **Mandatory Condition 1 [OAR 345-027-0020(2)]:** The certificate holder shall submit a  
28 legal description of the site to the Oregon Department of Energy within 90 days after  
29 beginning operation of the facility. The legal description required by this rule means a  
30 description of metes and bounds or a description of the site by reference to a map and  
31 geographic data that clearly and specifically identify the outer boundaries that contain  
32 all parts of the facility.

33 **Mandatory Condition 2 [OAR 345-027-0020(3)]:** The certificate holder shall design,  
34 construct, operate, and retire the facility:

- 35  
36 a. Substantially as described in the site certificate;  
37 b. In compliance with the requirements of ORS Chapter 469, applicable Council  
38 rules, and applicable state and local laws, rules and ordinances in effect at the  
39 time the site certificate is issued; and  
40 c. In compliance with all applicable permit requirements of other state agencies.

41  
42 **Mandatory Condition 3 [OAR 345-027-0020(5)]:** Except as necessary for the initial  
43 survey or as otherwise allowed for wind energy facilities, transmission lines or pipelines  
44 under this section, the certificate holder shall not begin construction, as defined in OAR

1 345-001-0010, or create a clearing on any part of the site until the certificate holder has  
2 construction rights on all parts of the site. For the purpose of this rule, “construction  
3 rights” means the legal right to engage in construction activities. For wind energy  
4 facilities, transmission lines or pipelines, if the certificate holder does not have  
5 construction rights on all parts of the site, the certificate holder may nevertheless begin  
6 construction, as defined in OAR 345-001-0010, or create a clearing on a part of the site if  
7 the certificate holder has construction rights on that part of the site and the certificate  
8 holder would construct and operate part of the facility on that part of the site even if a  
9 change in the planned route of a transmission line or pipeline occurs during the  
10 certificate holder’s negotiations to acquire construction rights on another part of the  
11 site.

12  
13 **Mandatory Condition 4 [OAR 345-027-0020(6)]:** If the certificate holder becomes aware  
14 of a significant environmental change or impact attributable to the facility, the  
15 certificate holder shall, as soon as possible, submit a written report to the department  
16 describing the impact on the facility and any affected site certificate conditions.

17  
18 **Mandatory Condition 5 [OAR 345-027-0020(10)]:** The Council shall include as conditions  
19 in the site certificate all representations in the site certificate application and supporting  
20 record the Council deems to be binding commitments made by the applicant.

21  
22 **Mandatory Condition 6 [OAR 345-027-0020(11)]:** Upon completion of construction, the  
23 certificate holder shall restore vegetation to the extent practicable and shall landscape  
24 all areas disturbed by construction in a manner compatible with the surroundings and  
25 proposed use. Upon completion of construction, the certificate holder shall remove all  
26 temporary structures not required for facility operation and dispose of all timber, brush,  
27 refuse and flammable or combustible material resulting from clearing of land and  
28 construction of the facility.

29 **Mandatory Condition 7 [OAR 345-027-0020(12)]:** The certificate holder shall design,  
30 engineer and construct the facility to avoid dangers to human safety presented by  
31 seismic hazards affecting the site that are expected to result from all maximum probable  
32 seismic events. As used in this rule “seismic hazard” includes ground shaking, landslide,  
33 liquefaction, lateral spreading, tsunami inundation, fault displacement and subsidence.

34  
35 **Mandatory Condition 8 [OAR 345-027-0020(13)]:** The certificate holder shall notify the  
36 department, the State Building Codes Division and the Department of Geology and  
37 Mineral Industries promptly if site investigations or trenching reveal that conditions in  
38 the foundation rocks differ significantly from those described in the application for a site  
39 certificate. After the Department receives the notice, the Council may require the  
40 certificate holder to consult with the Department of Geology and Mineral Industries and  
41 the Building Codes Division and to propose mitigation actions.

42  
43 **Mandatory Condition 9 [OAR 345-027-0020(14)]:** The certificate holder shall notify the  
44 department, the State Building Codes Division and the Department of Geology and

1 Mineral Industries promptly if shear zones, artesian aquifers, deformations or clastic  
2 dikes are found at or in the vicinity of the site.

3  
4 **Mandatory Condition 10 [OAR 345-027-0020(15)]:** Before any transfer of ownership of  
5 the facility or ownership of the site certificate holder, the certificate holder shall inform  
6 the department of the proposed new owners. The requirements of OAR 345-027-0100  
7 apply to any transfer of ownership that requires a transfer of the site certificate.

8  
9 *Site Specific Conditions [OAR 345-027-0023]*

10  
11 In addition to mandatory conditions imposed on all facilities, the Council rules also include “site  
12 specific” conditions at OAR 345-027-0023 that the Council may include in the site certificate to  
13 address issues specific to certain facility types or proposed features of facilities.

14  
15 Because the facility includes a 230 kV intraconnection transmission line, the Council adopts the  
16 following site specific condition:<sup>42,43</sup>

17  
18 **Site Specific Condition 1 [OAR 345-027-0023(5)]:** The Council shall specify an approved  
19 corridor in the site certificate and shall allow the certificate holder to construct the  
20 pipeline or transmission line anywhere within the corridor, subject to the conditions of  
21 the site certificate. If the applicant has analyzed more than one corridor in its  
22 application for a site certificate, the Council may, subject to the Council’s standards,  
23 approve more than one corridor.

24  
25 As described in Section III.A, *The Facility*, of this order, the facility site boundary includes a  
26 1,000 foot wide, up to 35-mile intraconnection corridor that would contain up to two overhead  
27 230 kV transmission lines that would connect Wheatridge West and Wheatridge East, as  
28 presented in Figures C-4 through C-10 of Exhibit C of the ASC. In accordance with Site Specific  
29 Condition 1, the location of the approved intraconnection corridors would be specified in the  
30 site certificate, based on the information and figures provided in Exhibit B and C of the ASC.

31  
32 *Construction and Operation Rules for Facilities [OAR Chapter 345, Division 26]*

33  

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<sup>42</sup> In the draft proposed order, the condition language at OAR 345-027-0023(4) was recommended as Site Specific Condition 1. In order to avoid redundant conditions, the proposed order incorporated the substantive requirements of Site Specific Condition 1 into the proposed amended Siting Standard Condition 1 in Section IV.Q of the proposed order.

<sup>43</sup> In the draft proposed order, recommended Site Specific Condition 2 stated, “If the proposed energy facility is a pipeline or a transmission line or has, as a related and supporting facility, a pipeline or transmission line,…” This introductory sentence is consistent with OAR 345-027-0023(5); however, because the facility includes a transmission line as a related and supporting facility, the sentence is unnecessary and was removed from the proposed order.

1 The Council has also adopted rules at OAR Chapter 345, Division 26 to ensure that construction,  
2 operation, and retirement of facilities are accomplished in a manner consistent with the  
3 protection of public health, safety, and welfare and protection of the environment. These rules  
4 include requirements for compliance plans, inspections, reporting and notification of incidents.  
5 The certificate holder must construct the facility substantially as described in the site certificate  
6 and the certificate holder must construct, operate, and retire the facility in accordance with all  
7 applicable rules adopted by the Council in OAR Chapter 345, Division 26.<sup>44</sup>

8 On the record of the public hearing, Ms. Gilbert/FGRV requested inclusion of a site certificate  
9 condition that establishes a method of receiving complaints and a formal means of responding  
10 to those complaints in order to: 1) identify areas of non-compliance with the site certificate; 2)  
11 identify areas which are not providing adequate protection to the public; and, 3) identify areas  
12 needing future legislative action. Ms. Gilbert/FGRV and T. Lindsay also requested that the  
13 Council require the applicant to establish programs for monitoring the environmental and  
14 ecological effects of the construction and operation of the proposed facility pursuant to ORS  
15 469.507.<sup>45</sup>

16  
17 The Council has implemented the statutory requirements of ORS 469.507 through OAR Chapter  
18 345 Division 26 rules. The complaint receipt and response process requested by Ms.  
19 Gilbert/FGRV is provided through the department's compliance program implemented  
20 pursuant to OAR 345-026-0050(2). Moreover, the department's compliance program includes a  
21 process for site inspection requests, allowing for an individual to request a site inspection if: 1)  
22 the requestor believes a violation of an EFSC order, site certificate condition, or warranty has  
23 occurred or may imminently occur; or 2) a situation exists that may lead to unnecessary  
24 exposure of an individual to hazardous materials or unsafe or dangerous conditions.  
25 Additionally, the department's compliance program requires certificate holder's to submit  
26 annual reports demonstrating compliance with each site certificate condition and establishes  
27 requirements for timely incident notification.

28  
29 **Conclusions of Law**

30  
31 Based on the foregoing findings of fact and conclusions of law, and subject to compliance with  
32 the mandatory and site-specific conditions, the Council finds that the facility satisfies the  
33 requirements of OAR 345-022-0000.

34  
35

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<sup>44</sup> Applicable rule requirements established in OAR Chapter 345, Division 26 include OAR 345-026-0080, OAR 345-026-0105, and OAR 345-026-0170. Applicable rule requirements are also established in OAR 345-026-0048, which was not identified in the draft proposed order, and identifies a requirement for certificate holder's to submit to the department a plan for demonstrating compliance with each site certificate condition.

<sup>45</sup> WRWAPPDoc68 DPO Public Comment\_I. Gilbert 2016-05-19; WRWAPPDoc100 DPO Public Comment\_I. Gilbert 2016-06-06; WRWAPPDoc115 DPO Public Comment\_T. Lindsay 2016-06-06

1 **IV.B. Organizational Expertise [OAR 345-022-0010]**  
2

3 Compliance with the Council’s Organizational Expertise standard shall be determined following  
4 review of the following rule subparts:  
5

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

18 *(2) The Council may base its findings under section (1) on a rebuttable presumption that*  
19 *an applicant has organizational, managerial and technical expertise, if the applicant has*  
20 *an ISO 9000 or ISO 14000 certified program and proposes to design, construct and*  
21 *operate the facility according to that program.*  
22

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

31 *(4) If the applicant relies on a permit or approval issued to a third party and the third*  
32 *party does not have the necessary permit or approval at the time the Council issues the*  
33 *site certificate, the Council may issue the site certificate subject to the condition that the*  
34 *certificate holder shall not commence construction or operation as appropriate until the*  
35 *third party has obtained the necessary permit or approval and the applicant has a*  
36 *contract or other arrangement for access to the resource or service secured by that*  
37 *permit or approval.*  
38  
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44



1 **Findings of Fact**  
2

3 Subsections (1) and (2) of the Council’s Organizational Expertise standard require that an  
4 applicant demonstrate its ability to design, construct and operate a proposed facility in  
5 compliance with Council standards and all site certificate conditions, as well as its ability to  
6 restore the site to a useful, non-hazardous condition. The Council may consider the applicant’s  
7 experience and past performance in constructing, operating and retiring other facilities in  
8 determining compliance with the Council’s Organizational Expertise standard. Subsections (3)  
9 and (4) address the applicant’s reliance upon third party permits.

10  
11 To demonstrate compliance with the Council’s Organizational Expertise standard, the applicant  
12 provided evidence regarding the its experience and organizational expertise to construct,  
13 operate and retire the proposed facility in Exhibit A (Applicant Information); Exhibit D  
14 (Organizational Expertise); Exhibit E (Applicable Permits); Exhibit M (Applicant’s Financial  
15 Capability); and Exhibit W (Facility Retirement).

16  
17 *Construction, Operation and Retirement of the Proposed Facility*  
18

19 The applicant is a wholly owned subsidiary of Swaggart Wind Power, LLC (Swaggart), which is a  
20 joint venture between Leprechaun Holdings, LLC and three investment funds managed by MAP  
21 Royalty, Inc.<sup>46</sup> As stated in Exhibit D, Swaggart was formed to secure the real estate rights,  
22 permits, and interconnection rights necessary to construct and operate a wind energy facility in  
23 the proposed location.<sup>47</sup>

24  
25 In support of its organizational expertise, the applicant described its past performance in  
26 developing and constructing more than 5,000 MW of combined operating wind farms in the  
27 United States.<sup>48</sup> For example, as stated in Exhibit D, members of the applicant’s management  
28 team played a key role in the development of the following now operational wind facilities in  
29 the Pacific Northwest: the 200 MW Leaning Juniper IIa and IIb projects, the 98.6 MW Pebble  
30 Springs project, and the 24 MW Klondike project.<sup>49</sup> In addition, the applicant stated that neither  
31 the applicant nor its management team have violated any rules or regulations during previous  
32 pre-construction activities associated with wind energy facilities.<sup>50</sup>  
33

---

<sup>46</sup> Leprechaun Holdings, Inc., is a development company founded by a landowner in Lone, Oregon. Exhibit D explains that MAP Royalty is a private investment and management company that has directly funded the development of wind projects throughout the United States. ASC, Exhibit D, p. 2.

<sup>47</sup> ASC, Exhibit D, p. 2.

<sup>48</sup> The applicant explained in Exhibit D that the applicant’s team has experience in managing all aspects of development and preconstruction activities; however, in many cases, at or immediately after the start of construction of previous projects, other partners have taken over the direct management of construction and operation. ASC, Exhibit D, p. 6.

<sup>49</sup> Mr. O’Connell was PPM/Iberdrola’s lead Northwest developer according to the ASC. ASC, Exhibit D, p. 3.

<sup>50</sup> ASC, Exhibit D, p. 6.

1 While the applicant has not selected the contractors, engineers and manufacturers for  
2 construction of the proposed facility, as stated in Exhibit D of the ASC, and relying upon the  
3 team’s previous industry experience, the applicant would select qualified contractors,  
4 engineers, and manufacturers with experience in the wind industry. The applicant stated that it  
5 has extensive relationships with all major wind turbine manufacturers as well as with the chief  
6 of building-of-plant contractors in the United States. Further, the applicant stated that its  
7 reliance on input from external consultants with decades of relevant experience developing  
8 successful wind plants in the Pacific Northwest would ensure selection of qualified engineering  
9 and design contractors. However, because the contractors have not yet been selected, to  
10 ensure the major contractors are qualified to design, engineer and construct the proposed  
11 facility and all contractors and subcontractors operate in compliance with the site certificate,  
12 the Council adopts the following conditions:  
13

14 **Organizational Expertise Condition 1:** Before beginning construction, the certificate  
15 holder shall notify the department of the identity and qualifications of the major design,  
16 engineering and construction contractor(s) for the facility. The certificate holder shall  
17 select contractors that have substantial experience in the design, engineering and  
18 construction of similar facilities. The certificate holder shall report to the department  
19 any changes of major contractors.  
20

21 **Organizational Expertise Condition 2:** Before beginning construction, the certificate  
22 holder shall notify the department of the identity and qualifications of the construction  
23 manager to demonstrate that the construction manager is qualified in environmental  
24 compliance and has the capability to ensure compliance with all site certificate  
25 conditions.  
26

27 **Organizational Expertise Condition 3:** Prior to construction, the certificate holder shall  
28 contractually require all construction contractors and subcontractors involved in the  
29 construction of the facility to comply with all applicable laws and regulations and with  
30 the terms and conditions of the site certificate. Such contractual provisions shall not  
31 operate to relieve the certificate holder of responsibility under the site certificate.  
32

33 **Organizational Expertise Condition 4:** Before beginning construction, the certificate  
34 holder shall notify the department before conducting any work on the site that does not  
35 qualify as surveying, exploration, or other activities to define or characterize the site. The  
36 notice must include a description of the work and evidence that its value is less than  
37 \$250,000 or evidence that the certificate holder has satisfied all conditions that are  
38 required prior to beginning construction.  
39

40 **Organizational Expertise Condition 5:** Any matter of non-compliance under the site  
41 certificate is the responsibility of the certificate holder. Any notice of violation issued  
42 under the site certificate will be issued to the certificate holder. Any civil penalties under  
43 the site certificate will be levied on the certificate holder.  
44

1           **Organizational Expertise Condition 6:** In addition to the requirements of OAR 345-026-  
2           0170, within 72 hours after discovery of incidents or circumstances that violate the  
3           terms or conditions of the site certificate, the certificate holder must report the  
4           conditions or circumstances to the department.  
5

6           Because the applicant relied on mitigation to satisfy the Council’s Fish and Wildlife Habitat  
7           standard, the applicant discussed its management team’s substantial experience in designing  
8           habitat mitigation projects. The applicant described Northwest Wildlife Consultants, Inc.’s  
9           (NWC’s) habitat mitigation experience including drafting initial concepts, contacting owners of  
10          potentially suitable mitigation areas, assessing the suitability of such lands, implementing  
11          protection and enhancement measures, monitoring of effectiveness, and validating successful  
12          completion of mitigation projects for energy facilities within Oregon and Washington including  
13          Stateline 2, Stateline 3, Klondike III, Leaning Juniper I, Leaning Juniper II, and Pebble Springs.  
14

15          While the applicant has not previously retired a facility, the applicant’s ability to retire the  
16          facility to a useful, nonhazardous condition is evaluated in Section IV.G, *Retirement and*  
17          *Financial Assurance*, of this final order.<sup>51</sup> In addition, the applicant’s ability to construct and  
18          operate the proposed facility in a manner that protects public health and safety is addressed in  
19          Section IV.C, *Structural Standard*; Section IV.M, *Public Services*; Section IV.O, *Public Health and*  
20          *Safety Standards for Wind Facilities*; and Section IV.Q, *Siting Standards for Transmission Lines*,  
21          of this final order.  
22

23          *ISO 9000 or ISO 14000 Certified Program*  
24

25          OAR 345-022-0010(2) is not applicable because the applicant did not propose to design,  
26          construct or operate the facility according to an ISO 9000 or ISO 14000 certified program.  
27

28          *Third-Party Permits*  
29

30          OAR 345-022-0010(3) addresses the requirements for potential third party permits. The  
31          applicant stated that it may rely on construction contractors to obtain permits for temporary  
32          concrete batch plants including a NPDES 1200-A, Air Contaminant Discharge Permit, and  
33          Conditional Use Permits within Morrow and Umatilla counties. These third-party permits for  
34          use of temporary concrete batch plants during proposed facility construction are federally  
35          delegated and/or would not ordinarily be reviewed by the Council to determine compliance.  
36

37          As discussed in Section IV.E, *Land Use* of this final order, the applicant intends to obtain  
38          aggregate from an existing permitted source. In accordance with its ordinance requirements,

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<sup>51</sup> The Council finds that the letter from Bank of Eastern Oregon dated December 4, 2014 is evidence of a reasonable likelihood that the applicant could obtain the necessary financial assurance. Subject to compliance with the site certificate conditions, the Council finds that the applicant would comply with the Retirement and Financial Assurance standard.

1 Umatilla County requested that the applicant identify the source of the aggregate prior to  
2 construction. Accordingly, the Council adopts the following condition:

3

4 **Organizational Expertise Condition 7:** Prior to construction, the certificate holder must  
5 provide the department and Umatilla and Morrow Counties with the name(s) and  
6 location(s) of the aggregate source and evidence of the source’s county permit(s).

7

8 The applicant did not propose an interconnection transmission line to connect the facility to the  
9 electrical grid as a related and supporting facility to the energy facility. Instead, the applicant  
10 represented in ASC Exhibit B that the proposed facility would be connected to the grid via  
11 overhead 230 kV transmission lines (also referred to as gen-tie lines) that would be permitted,  
12 constructed, and owned by either Umatilla Electric Cooperative (UEC) or UEC in partnership  
13 with Columbia Basin Electric Cooperative (CBEC). The applicant indicated that the  
14 interconnection lines would be operated by BPA.<sup>52</sup> The department noted that the ASC  
15 submitted for the proposed facility is the first ASC that has not included a gen-tie line and  
16 therefore represents the first time the Council has considered a proposed facility without a gen-  
17 tie line as a related and supporting facility.

18

19 On the record of the public hearing, Ms. Gilbert/FGRV expressed a concern that the applicant’s  
20 exclusion of the gen-tie from the ASC understates the impacts of the proposed facility and  
21 eliminates authority of the department and the Council over this development. She also  
22 expressed concern that the developer has provided documentation that they have been  
23 involved in determining the design, construction, ownership, operation and maintenance of the  
24 gen-tie line and that, based on a letter received from UEC, UEC would be acting as a sub-  
25 contractor to the applicant in the construction and operation of the gen-tie line.<sup>53</sup> On the record  
26 of the June 6, 2016 public hearing, Mr. T. Lindsay questioned the exclusion of the gen-tie line  
27 from the ASC and the siting process, and questioned the potential issuance of a site certificate  
28 prior to full public disclosure of the final plan for the gen-tie line. Mr. T. Lindsay also questioned  
29 UEC’s ability to provide transmission line service partially outside of their service area.<sup>54</sup> Ms.

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<sup>52</sup> ASC, Exhibit B, Section 2.3 stated that the interconnection lines will be owned by either UEC or UEC in partnership with the Columbia Basin Electric Cooperative, but operated by BPA. In a letter dated April 14, 2015, UEC stated that it “will provide for adequate transmission capacity to be made available for Wheatridge to transmit all power generated from their project to the BPA substation\*\*\*into which the UEC transmission line will connect.” Based on this statement, the Council understands that UEC would seek a contract with BPA for transmission service for the proposed facility.

<sup>53</sup> In a May 31, 2016 letter from R. Echenrode of UEC to Ms. Gilbert, he states that “the developer has agreed to fully compensate UEC for all costs associated with our work for and for the construction and ongoing maintenance of any facilities.” The letter further explains that UEC’s intention is to construct, own, and maintain the gen-tie line. WRWAPPDoc100 DPO Public Comment\_I. Gilbert 2016-06-06.

<sup>54</sup> On the record of the public hearing, CBEC stated that a tentative agreement between CBEC and the applicant was reached that addresses exclusive service territory issues. WRWAPPDoc88 DPO Public Comment (2<sup>nd</sup> Version) CBEC\_2016-06-06.

1 Gilbert/FGRV also requested the Council impose a condition requiring quarterly review of the  
2 ownership status of the gen-tie line.<sup>55</sup>

3  
4 It is the Council's responsibility to review, evaluate and issue orders either approving or denying  
5 ASCs submitted by an applicant. The Council does not have authority to evaluate structures that  
6 are not proposed by the applicant. An amendment to the site certificate would be required if a  
7 certificate holder proposes related and supporting facilities to the energy facility not included in  
8 or evaluated in the ASC.

9  
10 Because the interconnection transmission line is not proposed by the applicant, the Council  
11 finds that it is not a related or supporting facility for purposes of the facility ASC.

12  
13 Because the applicant is not requesting Council approval of the interconnection line and instead  
14 intends to rely on a permit or approval issued to a third party, the Council must determine  
15 compliance with OAR 345-022-0010(3), which requires that the third party has, or has a  
16 reasonable likelihood of obtaining, the necessary permit or approval, and that the applicant  
17 has, or has a reasonable likelihood of entering into, a contract or other arrangement with the  
18 third party for access to the service secured by that permit or approval.

19 The conceptual interconnection line route options (shown in ASC Exhibit C) would be located  
20 primarily on land zoned Exclusive Farm Use (EFU), and therefore would be an allowed use  
21 under ORS 215.283(1)(c), subject to compliance with ORS 215.275 or 215.274. If the  
22 interconnection line(s) were to cross other zones, in addition to approval for use of the EFU-  
23 zoned land, the third party (UEC or UEC in partnership with CBEC) would be required to obtain  
24 the necessary land use approvals for any uses in those zones. Because it would likely be  
25 reviewed through the county land use process as a use allowed under ORS 215.283(1)(c), the  
26 Council finds that the third-party has a reasonable likelihood of obtaining the necessary permit  
27 or approval for the interconnection line(s), as required under OAR 345-022-0010(3).

28  
29 OAR 345-022-0010(3) further requires that prior to issuing a site certificate, the Council must  
30 find that the applicant has, or has a reasonable likelihood of entering into, a contractual or  
31 other arrangement with the third party for access to the resource or service secured by that  
32 permit or approval. In a letter dated April 14, 2015, UEC stated that the applicant and UEC have  
33 executed Letters of Intent (LOIs) addressing UEC's design, construction, and ownership of the  
34 interconnection transmission line. UEC further stated that the applicant and UEC would  
35 negotiate an Operating and Maintenance Agreement as contemplated in the LOIs for any  
36 transmission facility constructed. Because the applicant has provided written confirmation from  
37 UEC demonstrating the intent of the two parties to enter into an agreement for UEC to provide  
38 transmission capacity to the applicant, in accordance with OAR 345-022-0010(3), the Council  
39 finds that the applicant has a reasonable likelihood of entering into a contractual or other  
40 arrangement with UEC for access to transmission service should UEC obtain approval from  
41 either Umatilla or Morrow County to construct and own the interconnection transmission line.

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<sup>55</sup> WRWAPPDoc100 DPO Public Comment\_I. Gilbert 2016-06-06. WRWAPPDoc115 DPO Public Comment\_T. Lindsay 2016-06-06.

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In addition, because the applicant would be relying on a permit or approval issued to a third party and that third party may not have the necessary permit or approval at the time the Council would issue a site certificate, the Council adopts the following condition, which prohibits the certificate holder from commencing construction until the third party permit is issued:

**Organizational Expertise Condition 8:** 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.

On the record of the public hearing, UEC stated that it has and will continue to coordinate with CBEC and the applicant to ensure orderly and timely development of the gen-tie line consistent with state and federal law. Similarly, CBEC stated that they will work with the applicant to meet the transmission needs of the proposed facility.<sup>56</sup>

During the contested case process, Ms. Gilbert raised the issue of whether the gen-tie line should be considered a related and supporting facility to the energy facility. In the applicant’s Motion for Summary Judgement, filed prior to the deadline for filing written direct testimony, the applicant argued that because the gen-tie line was not proposed by the applicant, that there were not facts in dispute and therefore there was not a genuine issue of material fact relevant to the question posed, and that as a matter of law the gen-tie line is not a related and supporting facility.

In the Proposed Contested Case Order, the Hearing Officer recommended that, based upon the Council’s March 14, 2017 Order on Certified Questions, the Council appeared to agree with the applicant’s interpretation of “proposed by applicant” as that phrase is used in ORS 469.300(24). Further, based upon the Council’s March 14, 2017 Order on Certified Questions, the Hearing Officer recommended that the phrase “proposed by applicant” of ORS 469.300(24) clearly and definitively should be interpreted to mean that unless an applicant proposes a structure in its ASC, regardless of the applicant’s participation or level of involvement in planning of the structure, the structure cannot be considered a related and supporting facility. In the Proposed Contested Case Order, the Hearing Officer recommended that no additional or modified conditions were needed to address the contested case issue.

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<sup>56</sup> WRWAPPD0c89 DPO Public Comment UEC (R. Echenrode) 2016-06-06; WRWAPPD0c88 DPO Public Comment (2<sup>nd</sup> Version) CBEC\_2016-06-06

1 Ms. Gilbert filed an exception to the Hearing Officer's recommendation on this issue.<sup>57</sup>  
2 Applicant filed a response to Ms. Gilbert's exception.<sup>58</sup>

3  
4 The Council adopts the Hearing Officer's rationale and conclusion and considers Organizational  
5 Expertise Conditions 1 through 8 sufficient to satisfy the requirements of the standard.

6  
7 **Conclusions of Law**

8  
9 Based on the evidence in the record, and subject to compliance with the recommended  
10 conditions of approval, the Council finds that the applicant satisfies the requirements of the  
11 Council's Organizational Expertise standard.

12  
13 **IV.C. Structural Standard [OAR 345-022-0020]**

14  
15 *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council*  
16 *must find that:*

17  
18 *(a) The applicant, through appropriate site-specific study, has adequately characterized*  
19 *the site as to the Maximum Considered Earthquake Ground Motion as shown for the site*  
20 *in the 2009 International Building Code and maximum probable ground motion, taking*  
21 *into account ground failure and amplification for the site specific soil profile under the*  
22 *maximum credible and maximum probable seismic events; and*

23  
24 *(b) The applicant can design, engineer, and construct the facility to avoid dangers to*  
25 *human safety presented by seismic hazards affecting the site that are expected to result*  
26 *from maximum probable ground motion events. As used in this rule "seismic hazard"*  
27 *includes ground shaking, ground failure, landslide, liquefaction, lateral spreading,*  
28 *tsunami inundation, fault displacement, and subsidence;*

29  
30 *(c) The applicant, through appropriate site-specific study, has adequately characterized*  
31 *the potential geological and soils hazards of the site and its vicinity that could, in the*  
32 *absence of a seismic event, adversely affect, or be aggravated by, the construction and*  
33 *operation of the proposed facility; and*

34  
35 *(d) The applicant can design, engineer and construct the facility to avoid dangers to*  
36 *human safety presented by the hazards identified in subsection (c).*

37

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<sup>57</sup> In her exceptions, Ms. Gilbert objects to the conclusions of law based upon a perceived adversarial relationship between Ms. Gilbert and Council member Jenkins and requests review of statutory interpretation by attorneys representing the legislative authors of the ORS 469.300(24) statute. WRWAPPDoc192 2017-04-02.

<sup>58</sup> In its response to exceptions, applicant argues that Ms. Gilbert's objection based on the perceived adversarial relationship between Ms. Gilbert and Council member Jenkins is outside the scope of the contested case proceeding, and that the legal interpretation requested by Ms. Gilbert was in fact the scope and outcome of the Council's review of the hearing officer's certified questions. WRWAPPDoc193 2017-04-14

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

5        \*\*\*

6  
7        **Findings of Fact**

8  
9        As provided in section (1) above, the Structural standard generally requires the Council to  
10       evaluate whether the applicant has adequately characterized the potential seismic, geological  
11       and soil hazards within the site boundary, and that the applicant can design, engineer and  
12       construct the facility to avoid dangers to human safety from these hazards.<sup>59</sup> Pursuant to OAR  
13       345-022-0020(2), the Council may issue a site certificate for a wind energy facility without  
14       making findings regarding compliance with the Structural standard; however, the Council may  
15       apply the requirements of the standard to impose site certificate conditions. Under the  
16       mandatory condition in OAR 345-027-0020(12), the certificate holder must design, engineer  
17       and construct the facility to avoid dangers to human safety presented by seismic hazards  
18       affecting the site that are expected to result from all maximum probable seismic events.<sup>60</sup>

19  
20       As established in the project order, the analysis area for the structural standard is the area  
21       within the site boundary. "Site boundary," as defined in OAR 345-001-0010(53), is the area  
22       within the perimeter of the proposed facility, its related or supporting facilities, all temporary  
23       laydown and staging areas, and all micro-siting corridors proposed by the applicant."

24  
25       The applicant provided information regarding the seismic characteristics within the site  
26       boundary and an assessment of seismic and geologic hazards and other requirements of the  
27       Structural standard in Exhibit H of the ASC. In addition, as required under OAR 345-021-  
28       0010(1)(h)(B), the applicant has committed to conducting a pre-construction geotechnical  
29       investigation to review and assess potential seismic, geologic, and soil hazards associated with  
30       construction of the proposed facility.<sup>61</sup> The applicant has also committed to modifying the  
31       facility layout and construction requirements as needed, based on the results of the site-  
32       specific geotechnical investigation. To ensure compliance with these commitments, the Council  
33       adopts the following condition requiring that the applicant conduct the site-specific pre-  
34       construction geotechnical investigation, in consultation with the department and the Oregon  
35       Department of Geology and Mineral Industries (DOGAMI):<sup>62</sup>

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<sup>59</sup> OAR 345-022-0020(3) does not apply to this proposed facility because the facility is a not a special criteria facility under OAR 345-015-0310.

<sup>60</sup> The Council does not preempt the jurisdiction of any state or local government over matters related to building code compliance.

<sup>61</sup> ASC, Exhibit H, p. 3.

<sup>62</sup> In the draft proposed order, recommended Structural Standard Condition 1 stated, "Before beginning construction, the certificate holder must conduct a site-specific geological and geotechnical investigation, shall report its findings to DOGAMI and the department. The department shall review and confirm the investigation



1  
2       **Structural Standard Condition 1:** Before beginning construction, the certificate holder  
3 must conduct a site-specific geological and geotechnical investigation, and shall report  
4 its findings to DOGAMI and the department. The report shall be used by the certificate  
5 holder in final facility layout and design. The department shall review, in consultation  
6 with DOGAMI, and confirm that the investigation report includes an adequate  
7 assessment of the following information:  
8

- 9
- 10       • Subsurface soil and geologic conditions of the site boundary
  - 11       • Define and delineate geological and geotechnical hazards, and means to mitigate  
12       these hazards
  - 13       • Geotechnical design criteria and data for the turbine foundations, foundations of  
14       substations, O&M buildings, roads, and other related and supporting facilities
  - 15       • Design data for installation of underground and overhead collector lines, and  
16       overhead transmission lines
  - 17       • Investigation of specific areas with potential for slope instability and landslide  
18       hazards. Landslide hazard evaluation shall be conducted by lidar and field work,  
19       as recommended by DOGAMI
  - 20       • Investigations of the swell and collapse potential of loess soils within the site  
21       boundary.

22 The Council must review the ASC against the EFSC standards and rules currently in effect. The  
23 current Structural standard (OAR 345-022-0020(1)(a)) requires use of the 2009 International  
24 Building Code (IBC), and the Division 21 application contents (OAR 345-021-0010(1)(h)) requires  
25 use of the 2010 Oregon Structural Specialty Code (OSSC) as well as the 2009 IBC. The IBC and  
26 the OSSC have both been updated since the versions referenced in the current EFSC rules;  
27 however, until the EFSC rules are updated to reflect the newer codes, the versions as stated in  
28 the current rule apply for purposes of compliance with the EFSC standard. However, as  
29 discussed below, the applicant has also provided information to confirm compliance with the  
30 current EFSC Structural standard requirement as well as the current OSSC, which was released  
31 in 2014.<sup>63</sup>  
32

33 DOGAMI reviewed the ASC in relation to OAR 345-021-0010 and OAR 345-022-0020, and  
34 provided comment to the department in August 2015. In its comment letter, DOGAMI stated  
35 that the ASC is compliant with the applicable requirements, and provided one proposed  
36 condition. This condition is discussed below in the findings regarding landslide hazards.<sup>64</sup>  
37

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report, in consultation with DOGAMI. The report shall be used by the site certificate holder in final facility layout and design. The investigation must include the following information..” In the proposed order, the department recommended administrative changes for clarification of timing of condition implementation; the Council agrees with the recommended administrative changes to the condition and imposes Structural Standard Condition 1.

<sup>63</sup> ASC, Exhibit H, p. 1.

<sup>64</sup> WRWAPPDoc28, Agency Comment DOGAMI, 08-27-2015.

1 The department provided the following assessment of each of the Structural standard  
2 requirements.

3  
4 *OAR 345-022-0020(1)(a): The applicant, through appropriate site-specific study, has*  
5 *adequately characterized the site as to the Maximum Considered Earthquake Ground*  
6 *Motion as shown for the site in the 2009 International Building Code and maximum*  
7 *probable ground motion, taking into account ground failure and amplification for the*  
8 *site specific soil profile under the maximum credible and maximum probable seismic*  
9 *events*

10  
11 OAR 345-022-0020(1)(a) requires the applicant to adequately characterize the probability and  
12 severity of seismic events and ground failure within the site boundary. Exhibit H describes the  
13 geologic setting of the area within the site boundary, which generally consists of loess and weak  
14 sedimentary rock overlying basalt bedrock. As described by the applicant, in some valley  
15 locations, catastrophic flood deposits (gravel and cobble bars overlain by silt) have been  
16 deposited by ancient floods.

17  
18 The applicant has performed a general review to characterize the seismic hazards within the  
19 site boundary to conform to the currently-applicable EFSC rules and the Structural standard.  
20 However, because EFSC's Structural standard is out of date and not aligned with current IBC  
21 and OSSC requirements, the applicant provided an assessment in conformance to the current  
22 IBC and OSSC requirements.<sup>65</sup>

23  
24 The applicant describes in Exhibit H that the 2009 IBC as amended by the 2010 OSSC defines the  
25 design parameters to determine the maximum credible earthquake (MCE), and that under the  
26 2009 IBC, the MCE has a 2% probability of exceedance in 50 years (or a 2,475 year return  
27 period). The MCE has a peak ground acceleration (PGA) of 0.167g at the bedrock surface. This  
28 value of PGA on rock is an average representation of the acceleration most likely to occur  
29 within the site boundary for all seismic events (crustal, intraplate, or subduction).<sup>66</sup>

30  
31 As stated in Exhibit H, the applicant would utilize seismic design parameters for the proposed  
32 facility that correspond to Site Class C requirements (very dense soil and soft rock), though  
33 Exhibit H also describes that after additional subsurface investigation it expects that some  
34 portions of the facility would be designed to Site Class B requirements (rock). MCE ground  
35 motions are shown on Exhibit H Figures H-3 and H-4 for the two expected site classifications  
36 within the site boundary.

37  
38 The applicant's assessment of the ground motion and MCE based on the 2014 OSSC and 2012  
39 IBC, the most recent versions of these guidelines and standards, is included in Exhibit H Section  
40 3.1.2, and the applicable design parameters based on these guidelines is shown in Table H-4 of  
41 Exhibit H of the ASC.

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<sup>65</sup> ASC, Exhibit H, p. 9.

<sup>66</sup> ASC, Exhibit H, p. 10.

1  
2 Exhibit H, Section 3.1.3, contains the applicant's assessment of potential earthquakes and  
3 seismic activity in northern Oregon. As described, Oregon is affected by four potential types of  
4 earthquakes: crustal, intraplate, volcanic, and deep subduction zone. Of these, the deep  
5 subduction zone earthquake along the Cascadia Subduction Zone (CSZ) has the potential to  
6 produce the largest magnitude earthquake, up to 9.0 magnitude. The other types of  
7 earthquakes can be expected to produce up to 7.0 magnitude. The applicant's assessment  
8 shows that the maximum probable earthquake (a 10 percent chance of exceedance in 50 years,  
9 or a 500-year nominal recurrence interval) is the 9.0 magnitude CSZ event. However, as shown  
10 on Table H-5 in ASC Exhibit H, the epicentral distance of such an event is approximately 200  
11 miles from the site boundary and the corresponding PGA is 0.077g. The probabilistic seismic  
12 hazard analysis (a two-percent probability of exceedance in 50 years or a 2,500 year nominal  
13 recurrence period), as conducted by the applicant, results in an expected 6.0 magnitude  
14 earthquake with a 16 mile epicentral distance from the site boundary, and a PGA of 0.167g.  
15 Table H-6A in ASC Exhibit H shows the historically recorded earthquakes within 50 miles of the  
16 site boundary. Based on information presented in Table H-6A, magnitude 4.4 is the largest  
17 recorded earthquake in recent history.<sup>67</sup>

18  
19 As noted, DOGAMI reviewed the ASC in relation to OAR 345-021-0010 and OAR 345-022-0020,  
20 and found it to be in compliance with applicable requirements. Based upon the evidence and  
21 analysis presented, the Council finds that the applicant has adequately characterized the  
22 proposed facility site as to the MCE and maximum probable ground motion, taking into account  
23 ground failure and amplification for the site specific soil profile under the maximum credible  
24 and maximum probable seismic event.

25  
26 *OAR 345-022-0020(1)(b): The applicant can design, engineer, and construct the facility*  
27 *to avoid dangers to human safety presented by seismic hazards affecting the site that*  
28 *are expected to result from maximum probable ground motion events. As used in this*  
29 *rule "seismic hazard" includes ground shaking, ground failure, landslide, liquefaction,*  
30 *lateral spreading, tsunami inundation, fault displacement, and subsidence;*

31  
32 Exhibit H contains a discussion of the seismic hazards expected to affect the facility as well as  
33 the applicant's proposed mitigation measures and proposed additional pre-construction  
34 geotechnical study.

35  
36 *Ground Shaking*

37  
38 As discussed in Exhibit H, the facility would be designed in consideration of the 2,500 year  
39 recurrence interval seismic event. As noted by the applicant, the State of Oregon and both  
40 Morrow and Umatilla counties have adopted the 2012 IBC code for structural design and 2014  
41 OSSC. The applicant also noted that the IBC is updated every three years. The applicant stated

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<sup>67</sup> ASC, Exhibit H, pp. 12-16.

1 that it would design the proposed facility in accordance with the current versions of the latest  
2 codes as adopted by Oregon at the time of construction.<sup>68</sup> In addition, designing the proposed  
3 facility to the current versions of the latest codes would further ensure the applicant meets the  
4 Structural standard and designs, engineers, and constructs the proposed facility to avoid  
5 dangers to human safety presented by seismic hazards. As such, the Council adopts the  
6 following condition, which requires the applicant to design the facility in accordance with the  
7 current versions of the latest IBC and OSSC as adopted by the State of Oregon at the time of  
8 construction:

9  
10 **Structural Standard Condition 2:** The certificate holder shall design, engineer, and  
11 construct the facility in accordance with the current versions of the latest International  
12 Building Code, Oregon Structural Specialty Code, and building codes as adopted by the  
13 State of Oregon at the time of construction.

14  
15 *Fault Rupture*

16  
17 The applicant stated that there have been no mapped potentially active faults that could cause  
18 a surface rupture within the site boundary.<sup>69</sup> However, upon department review of Exhibit H,  
19 Figures H-1 and H-2, it appears that a fault line crosses the site boundary of Wheatridge East in  
20 Umatilla County. The fault is labelled on these maps as “2438,” and the map key says the fault  
21 corresponds as “Fault line: yes.” The text of Exhibit H does not address this fault or explain  
22 whether the fault is potentially active and could cause surface rupture.

23  
24 In order to confirm whether there are any potentially active faults, the Council adopts the  
25 following condition, with administrative changes included in the proposed order clarifying that  
26 the requirements apply prior to construction. The condition would require that the applicant, as  
27 part of the geotechnical report to be required under Structural Standard Condition 1,  
28 adequately describe this fault, its potential risk to the proposed facility, and any additional  
29 mitigation that would be undertaken to safely design, construct, and operate the proposed  
30 facility:<sup>70</sup>

31  
32 **Structural Standard Condition 3:** Prior to construction, the certificate holder shall  
33 include as part of the geotechnical investigation required per Structural Standard  
34 Condition 1, an investigation of all potentially active faults within the site boundary,  
35 including the fault labeled as 2438 on Figures H-1 and H-2 of ASC Exhibit H. The

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<sup>68</sup> ASC, Exhibit H, p. 17.

<sup>69</sup> ASC, Exhibit H, p. 18.

<sup>70</sup> In the draft proposed order, recommended Structural Standard Condition 3 stated, “The site certificate holder shall include as part of the geotechnical investigation recommended by 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. The investigation shall include a description of the potentially active faults, their potential risk to the project, and any additional mitigation that will be undertaken by the site certificate holder to ensure safe design, construction, and operation of the facility.”

1 investigation shall include a description of the potentially active faults, their potential  
2 risk to the facility, and any additional mitigation that will be undertaken by the  
3 certificate holder to ensure safe design, construction, and operation of the facility.  
4

5 On the record of the public hearing, Ms. Gilbert/FGRV indicated that information on fault line  
6 2438 needs to be provided prior to issuance of the site certificate to determine the potential for  
7 surface rupture and references OAR 345-022-0020(1)(b) of the Council's Structural standard.<sup>71</sup>  
8 The cited rule establishes that the Council must find that the applicant can demonstrate that  
9 the facility can be designed, engineered and constructed to avoid dangers to human safety  
10 presented by seismic hazards affecting the site. Structural Standard Condition 1 and Structural  
11 Standard Condition 3 would require that prior to construction the certificate holder complete a  
12 site-specific geologic and geotechnical investigation and an investigation of all potentially active  
13 faults within the site boundary. The investigation and reports required by these two conditions  
14 would be required to be submitted to and confirmed by the department and the Oregon  
15 Department of Geology and Mineral Industries prior to construction.

16 Moreover, as described in Section IV.A, *General Standard of Review*, Mandatory Condition 7  
17 requires the certificate holder to design, engineer, and construct the proposed facility to avoid  
18 dangers to human safety presented by seismic hazards affecting the facility site that are  
19 expected to result from all maximum probably seismic events. Additionally, Mandatory  
20 Condition 8 requires the certificate holder to notify the department, the state building codes  
21 division, and DOGAMI promptly if site investigations or trenching reveal that conditions of  
22 foundation rocks differ significantly from those described in the ASC, and if required, additional  
23 mitigation may be required.  
24

25 Based upon the requirements in Structural Standard Condition 1, Structural Standard Condition  
26 3, Mandatory Condition 7, and Mandatory Condition 8, and the fact that OAR 345-022-0020(2)  
27 allows the Council to issue a site certificate for a proposed wind facility without making a  
28 finding of compliance with the Structural Standard, the Council does not consider Ms.  
29 Gilbert's/FGRV's request to require evaluation of fault line 2438 in advance of site certificate  
30 issuance appropriate or necessary to comply with an applicable rule or standard.  
31

### 32 *Liquefaction and Subsidence*

33

34 As described in Exhibit H, neither of these seismic hazards present a serious risk to the facility.  
35 Liquefaction potential within the site boundary is extremely unlikely due to the cohesive soils  
36 and no saturation, plus low seismic event potential. Subsidence is also described as highly  
37 unlikely as overlying soils at the site boundary are not saturated and bedrock is relatively  
38 shallow, and seismic events are low.<sup>72</sup>  
39

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<sup>71</sup> WRWAPPDoc73 DPO Public Comment\_I. Gilbert 2016-05-19

<sup>72</sup> ASC, Exhibit H, pp. 18-19.

1 *Landslides*

2

3 The applicant reviewed the DOGAMI Statewide Landslide Inventory Database for Oregon  
4 (SLIDO) database and found no active landslides within the site boundary; however, the  
5 applicant stated that evidence of landslides was found in close proximity to the southern  
6 portion of Wheatridge West.

7

8 The applicant would conduct a pre-construction investigation of specific areas with potential  
9 for slope instability and site turbine strings appropriate to avoid the potential hazard. DOGAMI  
10 also recommended that landslide hazards be adequately investigated and mapped before final  
11 facility layout and design. Furthermore, DOGAMI recommended that such a landslide hazard  
12 evaluation be conducted by a combination of lidar and field work.<sup>73</sup> The Council adopts the  
13 following condition.<sup>74</sup> The condition requires that this investigation of landslide hazards be a  
14 component of the facility's pre-construction geotechnical review, as required by Structural  
15 Standard Condition 1.

16

17 **Structural Standard Condition 4:** Prior to construction, the certificate holder shall  
18 include as part of the geotechnical investigation required per Structural Standard  
19 Condition 1 an investigation of specific areas with potential for slope instability and shall  
20 site turbine strings appropriate to avoid potential hazards. The landslide hazards shall be  
21 investigated and mapped before final facility layout and design. The landslide hazard  
22 evaluation shall be conducted by a combination of lidar and field work.

23

24 As noted, DOGAMI reviewed Exhibit H in relation to OAR 345-021-0010 and OAR 345-022-0020,  
25 and found it to be in compliance with applicable requirements. Based on the evidence  
26 provided, and in compliance with the conditions referenced above, the Council concludes that  
27 the applicant can design, engineer, and construct the facility to avoid dangers to human safety  
28 presented by seismic hazards affecting the facility site that are expected to result from  
29 maximum probable ground motion events.

30

---

<sup>73</sup> WRWAPPDoc28, Agency Comment DOGAMI, 08-27-2015.

<sup>74</sup> In the draft proposed order, recommended Structural Standard Condition 4 stated, "The site certificate holder shall include as part of the geotechnical investigation recommended by 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."

1            *OR 345-022-0020(1)(c) and (d): (c)The applicant, through appropriate site-specific*  
2            *study, has adequately characterized the potential geological and soils hazards of the site*  
3            *and its vicinity that could, in the absence of a seismic event, adversely affect, or be*  
4            *aggravated by, the construction and operation of the proposed facility; and (d) The*  
5            *applicant can design, engineer and construct the facility to avoid dangers to human*  
6            *safety presented by the hazards identified in subsection (c).*  
7

8            The applicant characterized the potential non-seismic geologic and soil-related hazards that  
9            could affect the facility in Exhibit H. The hazards considered are related to volcanic activity,  
10           mass washing and landslides, erosion, and collapse of potential loess.

11  
12           *Volcanic Activity*

13  
14           The applicant stated that volcanic activity that could impact the facility is extremely unlikely as  
15           potentially active volcanos are well west of the site boundary.<sup>75</sup>

16  
17           *Mass Washing and Landslides*

18  
19           Landslide hazards are described above.

20  
21           *Erosion*

22  
23           The applicant stated that soils within the site boundary are considered moderately to highly  
24           erodible and subject to sheet erosion and rill erosion by water. The applicant is subject to the  
25           requirements of a National Pollutant Discharge Elimination System (NPDES) stormwater  
26           construction permit, as discussed in the Soil Protection standard section of this final order. A  
27           NPDES permit requires development and implementation of an erosion and sediment control  
28           plan (ESCP) including BMPs for controlling erosion. A draft of the ESCP is included in Exhibit I,  
29           Attachment I-3.

30  
31           Exhibit H Section 4.2.1 includes a number of BMPs that would be implemented by the applicant  
32           to reduce erosion. These measures include the following:

33  
34           General erosion control measures:

- 35           • Avoid earth disturbing activities during wet weather;
- 36           • Work area sediment control;
- 37           • Storm drain inlet protection;
- 38           • Non-storm water pollution controls and BMPs;
- 39           • Covering or otherwise protecting soil stockpiles; and
- 40           • Runoff and erosion prevention measures for slopes susceptible to erosion.

41  
42           Specific erosion and sediment control measures include:

---

<sup>75</sup> ASC, Exhibit H, p. 19.

- 1 • Avoid highly erodible areas;
- 2 • Stabilize road entrances and exits;
- 3 • Preserve and restore vegetation;
- 4 • Control dust;
- 5 • Install silt fencing and straw wattles;
- 6 • Apply gravel and mulching;
- 7 • Install stabilizing matting;
- 8 • Control concrete washout areas;
- 9 • Manage soil stockpiles;
- 10 • Install check dams, sediment traps, and sediment basins; and
- 11 • Manage soil erosion by wind.

12

13 Soil Protection Conditions 1 and 2 would require the applicant conduct all work in compliance  
14 with a final ESCP, submitted as part of the NPDES 1200-C permit, and approved by the Oregon  
15 Department of Environmental Quality (DEQ). The specific measures described here are also  
16 described in Section IV.D, *Soil Protection* of this final order. Compliance with Soil Protection  
17 Conditions 1 and 2 would reduce potential impacts from erosion.

18

### 19 *Collapse of Potential Loess*

20

21 The applicant described that loess soil is susceptible to collapse and swelling, and that this can  
22 have a detrimental effect on construction and foundations built on loess soil. The applicant has  
23 committed to conducting pre-construction geotechnical investigations, including investigations  
24 of the swell and collapse potential of loess in the site boundary. The Council adopts the  
25 following condition with administrative changes included in the proposed order clarifying that  
26 the requirements apply prior to construction.<sup>76</sup> The condition would require that this specific  
27 investigation be included as part of the pre-construction geotechnical investigation, as required  
28 under Structural Standard Condition 1. The applicant must implement mitigation measures  
29 based on the investigation, including, as necessary, over-excavating and replacing loess soil  
30 with structural fill, wetting and compacting, deep foundations, or avoidance of specific areas.

31

32 **Structural Standard Condition 5:** Prior to construction, the certificate holder shall  
33 include as part of the geotechnical investigation required per Structural Standard  
34 Condition 1, an investigation of the swell and collapse potential of loess soil in the site  
35 boundary. Based on the results of the investigation, the certificate holder shall include  
36 mitigation measures including, as necessary, over-excavating and replacing loess soil  
37 with structural fill, wetting and compacting, deep foundations, or avoidance of specific  
38 areas.

---

<sup>76</sup> In the draft proposed order, recommended Structural Standard Condition 5 stated, “The certificate holder shall include as part of the geotechnical investigation recommended by 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 site certificate holder shall include mitigation measures including, as necessary, over-excavating and replacing loess with structural fill, wetting and compacting, deep foundations, or avoidance of specific areas.”



1  
2 As noted, DOGAMI reviewed Exhibit H in relation to OAR 345-021-0010 and OAR 345-022-0020,  
3 and found it to be in compliance with applicable requirements. In addition, Structural Standard  
4 Condition 2 requires the applicant to design, engineer, and construct the facility in accordance  
5 with the most recent IBC, OSSC, and building codes as adopted by the State of Oregon at the  
6 time of construction, and thus further reducing risk to human safety from seismic and non-  
7 seismic hazards. Based upon the evidence provided, and subject to compliance with the  
8 conditions referenced above, the Council finds that the applicant has adequately characterized  
9 the potential geologic and soil hazards within the site boundary and its vicinity that could, in the  
10 absence of a seismic event, adversely affect or be aggravated by the construction and operation  
11 of the facility, and that the applicant could design, engineer, and construct the facility to avoid  
12 dangers to human safety presented by the identified hazards.

13

#### 14 **Conclusions of Law**

15

16 Based on the foregoing analysis, and in compliance with OAR 345-022-0020(2), the Council  
17 includes the conditions listed above in the site certificate to address the Council's Structural  
18 standard.

19

#### 20 **IV.D. Soil Protection [OAR 345-022-0022]**

21

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

27

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

29

30 The Soil Protection standard requires the Council to find that, taking into account mitigation,  
31 the design, construction and operation of a facility are not likely to result in a significant  
32 adverse impact to soils. The applicant's assessment of potential soil impacts and compliance  
33 with the Soil Protection standard are included in Exhibit I of the ASC. Additional information  
34 related to the facility's potential effects to soils and proposed mitigation measures, as  
35 described by the applicant, can be found in ASC Exhibit G (Materials Analysis) and Exhibit K  
36 (Land Use).

37

38 The analysis area for the Soil Protection standard is the area within the site boundary. The  
39 applicant stated that construction activities, based on the maximum impact development  
40 scenario, would result in approximately 1,194 acres of temporary disturbance, and  
41 approximately 171 acres of permanent disturbance.<sup>77</sup>

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<sup>77</sup> The acreage totals presented are from Exhibit C of the ASC.

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Existing Soil Conditions and Land Use

Existing soil conditions within the analysis area are shown in Exhibit I, specifically in Section 3.0 and on the associated figures in that exhibit. Exhibit I, Attachment I-1, Tables 1-4 describe the soils units, including the erosion potential, of the various soil types. The applicant classified soil types using Natural Resources Conservation Service (NRCS) Soil Survey Geographic Database. The applicant stated that the facility would be located on 57 different mapped soil units, but that approximately 2/3 of the temporary and permanent areas of disturbance would be on five soil units. These soil units are described in Exhibit I. Additionally, the applicant described that some soils types in the analysis area are prone to disturbance, specifically erosion from water and wind, compaction, and soils with limited revegetation potential. The applicant stated there is a small portion of hydric soils in the analysis area; hydric soils are typically considered jurisdictional wetlands.<sup>78</sup> Finally, some of the soils in the analysis area are mapped as prime farmland and farmland of statewide significance.<sup>79</sup>

As described throughout the ASC, land uses within the analysis area generally consist of private agricultural land mostly used for dryland winter wheat production or rangeland, with small areas of irrigated agriculture. The applicant stated that the analysis area contains approximately 655 acres of soils defined as high value farmland.

Potential Adverse Impacts to Soil

Exhibit I includes the applicant’s assessment of how the facility may impact soils. Additional information related to the facility’s potential impacts to soils, as described by the applicant, and proposed mitigation measures can be found in Exhibit G and Exhibit K.

*Construction*

As described by the applicant, during construction soils may be adversely impacted by a number of construction activities. These activities include: clearing and grubbing of vegetation

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<sup>78</sup> On the record of the public hearing, Ms. Gilbert/FGRV’s Issue 3 requested that the Council impose a condition prohibiting development on hydric soils and farmland of statewide significance. On the record of the public hearing, the applicant argued that the requested prohibition of development on hydric soils or farmland of statewide significance is not required by or necessary to satisfy an applicable Council standard. The Council’s Soil Protection standard requires the Council to find that the proposed facility, taking into account mitigation, would not be likely to result in a significant adverse impact to soil and does not establish a prohibition limiting any and all impact to soils, as noted by the applicant. As described in Section IV.D., *Soil Protection* of the proposed order, the department recommended that the Council find that compliance with Soil Protection Conditions 1 through 7 would minimize potential significant adverse impacts to soils. Council’s review of potential facility impacts to wetlands is included in Section IV.S *Removal-Fill Law* of this final order. The Council concurs and imposes Soil Protection Conditions 1 through 7 in the site certificate. WRWAPPDoc73 DPO Public Comment\_I. Gilbert 2016-05-19; WRWAPPDoc85 DPO Public Comment (Applicant)\_D. Petersen 2016-06-06.

<sup>79</sup> ASC, Exhibit I, pp. 2-7.

1 in temporary construction areas, turbine pads, and new access roads, grading and widening of  
2 existing access roads, construction of new access roads, heavy equipment and haul truck traffic  
3 for the delivery of aggregates, concrete, water, turbine components, cranes, and similar  
4 construction supplies, and fueling or maintenance of construction equipment or vehicles. These  
5 activities can lead to wind or water erosion, compaction, changes in drainage patterns, or spills  
6 or releases of chemicals or other liquid materials used during construction.<sup>80</sup> Mitigation  
7 measures and recommended conditions are discussed below.

8  
9 *Operation*

10  
11 The applicant states that the facility's operations would have no impact on soil erosion, as  
12 operations would be confined to gravel surfaced areas including the apron constructed around  
13 each turbine, the site access roads, substations, and O&M buildings, and no additional ground  
14 disturbance is anticipated to occur during facility operations that could lead to erosion.<sup>81</sup> In  
15 addition, as discussed in Section IV.A *General Standard of Review* of this final order, Mandatory  
16 Condition 6 requires the applicant to restore vegetation to the extent practicable and landscape  
17 all areas disturbed by construction. Restoration of temporarily impacted areas would further  
18 reduce the potential for erosion during proposed facility operation.

19  
20 As described in Exhibit I, the applicant would reduce the potential for soil contamination during  
21 operation by not maintaining substantial supplies of oil, fuel, pesticides or other hazardous  
22 materials on-site, and by observing appropriate measures during maintenance procedures such  
23 as oil changes for the turbine gearboxes. The applicant stated that minor quantities of oil,  
24 lubricants, cleaners, and solvents would be stored on-site during operation in the O&M  
25 building, in quantities similar to household storage and use of a few gallons. In addition, up to  
26 two 55-gallon drums of hydraulic oil and gearbox oil, 55 gallons of general lubricating oil, and  
27 55 gallons of ethylene glycol coolant may be maintained on-site for maintenance activities. As  
28 during construction, if a spill were to occur, the applicant stated that the impact area would be  
29 limited, and the spill remediated immediately so as to prevent further impacts to soils.

30  
31 On the record of the public hearing, Ms. Gilbert/FGRV requested that the Council impose a  
32 condition during proposed facility operation requiring secondary containment of hazardous  
33 substances. The applicant stated, in ASC Exhibit G, that lubricating and dielectric oils would  
34 primarily be contained in qualified oil-filled equipment. The department considered this to be a  
35 binding commitments by the applicant. Therefore, in response to Ms. Gilbert/FGRV's comments  
36 on the record of the public hearing and pursuant to OAR 345-027-0020(10), the department  
37 recommended that the Council adopt, as amended, Soil Protection Condition 5 requiring  
38 implementation of an approved spill prevention and management plan during facility operation  
39 which specifies that lubricating and dielectric oils in quantities equal to or greater than 55-

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<sup>80</sup> ASC, Exhibit I, pp. 7-10.

<sup>81</sup> ASC, Exhibit I, pp. 10-11.

1 gallons would be stored in oil-qualified equipment.<sup>82</sup> The Council concurs and imposes Soil  
2 Protection Condition 5 in the site certificate.

3  
4 The applicant would construct a septic tank system to handle and manage sewage waste from  
5 the O&M buildings. If not properly constructed, these septic systems could cause an adverse  
6 impact to soils.

7  
8 Measures to Mitigate Potential Adverse Impacts to Soils during Construction

9  
10 *Erosion Concerns*

11  
12 As described above and in the ASC, facility construction may adversely impact soils and cause  
13 erosion. To address these impacts, the applicant would implement a number of management  
14 and mitigation measures. The mitigation measures and BMPs specific to soils are included in  
15 the facility's NPDES 1200-C permit application, specifically the ESCP. The NPDES and ESCP are  
16 included in Exhibit I, Attachment I-3. NPDES 1200-C permits are federally-delegated from the  
17 Environmental Protection Agency (EPA) to DEQ, and therefore are not included in or governed  
18 by the site certificate. The NPDES 1200-C permit applies during construction, and is intended to  
19 regulate and manage stormwater. The applicant submitted its NPDES 1200-C permit  
20 application, including the ESCP, to DEQ in December 2014. Based on its evaluation of the NPDES  
21 permit application and associated ESCP, DEQ notified the applicant and the department in  
22 March 2015 that DEQ expects to be able to issue the NPDES 1200-C construction stormwater  
23 permit for the facility within 30 days of receiving the site certificate from the Council and  
24 review completion of the final version of the ESCP.<sup>83</sup> To ensure compliance with the NPDES  
25 1200-C permit and the ESCP, the Council adopts the following condition, requiring the applicant  
26 to implement all provisions of the NPDES 1200-C permit and the final ESCP, as approved by  
27 DEQ:

28

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<sup>82</sup> Ms. Gilbert/FGRV requested that a condition be imposed requiring secondary containment of hazardous materials stored in containers exceeding 1-gallon. Consistent with federal and state oil and hazardous material emergency response requirements, based on the hazardous materials proposed to be stored onsite, the department considers quantities stored in less than 55-gallon containers not to be harmful, if discharged, to human health. All other materials would be stored in quantities of 55-gallons or greater, within oil-qualified equipment, which provides internal secondary containment. Ms. Gilbert/FGRV also requested that the condition require installation and operation of an alarm or ongoing monitoring system to avoid contamination and limit fire hazard. Recommended Soil Protection Condition 5 would require the certificate holder to develop and implement an approved spill prevention and management plan during facility operation that would identify measures to reduce and avoid, as well as to respond to, potential hazardous material spills. Compliance with recommended Soil Protection Condition 5 would provide the ongoing monitoring requested by Ms. Gilbert/FGRV; and therefore, the department does not consider additional amendments to the condition, as proposed in the draft proposed order, necessary or appropriate in order to satisfy the Council's Soil Protection standard. The Council agrees that the additional condition requested by Ms. Gilbert/FGRV is not necessary or required to satisfy the Council's Soil Protection standard and imposes Soil Protected Condition 5. WRWAPPDoc73 DPO Public Comment\_I. Gilbert 2016-05-19.

<sup>83</sup> WRWAPPDoc52, Agency Comment DEQ, 03-11-2015.

1           **Soil Protection Condition 1:** During construction, the certificate holder shall conduct all  
2 work in compliance with a final Erosion and Sediment Control Plan that is satisfactory to  
3 the Oregon Department of Environmental Quality as required under the National  
4 Pollutant Discharge Elimination System Construction Stormwater Discharge General  
5 Permit 1200-C.  
6

7 In Exhibit I, Section 5.2, the applicant lists a number of mitigation measures and BMPs that  
8 would be implemented to minimize impacts to soils.<sup>84</sup> As described by the applicant, those  
9 mitigation measures and BMPs include:  
10

- 11           • Stabilize Construction Entrance/Exit – A stabilized construction entrance/exit will be  
12 installed at locations where construction vehicles will access newly constructed  
13 roads and/or disturbed areas from paved roads. The stabilized construction  
14 entrance/exits will be inspected and maintained for the duration of Project life.
- 15           • Preserve Existing Vegetation – to the extent practicable, existing vegetation will be  
16 preserved. Where vegetation clearing is necessary, root systems would be  
17 conserved if possible.
- 18           • Silt Fencing – Silt fencing will be installed throughout the Project as a perimeter  
19 control, material stockpile perimeter control, and on the contour down gradient of  
20 excavations, O&M Buildings, and Substations.
- 21           • Straw Wattles – Straw wattles may be used to decrease the velocity of sheet flow  
22 stormwater to prevent erosion. Wattles will be used along the downgradient edge of  
23 access roads adjacent to slopes or sensitive areas.
- 24           • Mulching – Mulch will be used to immediately stabilized areas of soil disturbance  
25 and during reseeding efforts.
- 26           • Stabilization Matting: Jute matting, straw matting, or turf reinforcement matting  
27 may be used in conjunction with mulching to stabilize steep slopes that were  
28 exposed during access road installation.
- 29           • Soil Binders and Tackifiers: Soil binders and tackifiers may be used on exposed  
30 slopes to stabilize them until vegetation is established.
- 31           • Concrete Washout Area – Concrete chutes and trucks will be washed out in  
32 dedicated areas near the turbine foundation construction location. This will prevent  
33 concrete washout water from leaving a localized area. Soil excavated for the  
34 concrete washout area will be used as backfill for the completed footing to ensure  
35 that the surface soils maintain infiltration capacity.
- 36           • Stockpile Management – to facilitate installation of the turbine footings, large  
37 excavations will be created. Soil from these excavations will be temporarily  
38 stockpiled and used as backfill for the completed footing. Silt fence will be installed  
39 around the stockpile material as a perimeter control. Mulch or plastic sheeting will  
40 be used to cover the stockpiled material. Soils will be stockpiled and reused by  
41 Wheatridge, in order to prevent mixing of productive topsoils with deeper subsoils.

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<sup>84</sup> ASC, Exhibit I, pp. 11-12.

- 1           • Revegetation - At the completion of land disturbing construction activities, the site  
2           will be revegetated with an approved seed mix. When required, the seed will be  
3           applied in conjunction with mulch and/or stabilization matting to protect the seeds  
4           as the grass establishes. Revegetation would take place as soon as practicable  
5           following construction.
- 6           • Check Dams and Sediment Traps – Check dams and sediment traps will be used  
7           during the construction of low-impact ford crossings or culvert installations. The  
8           check dams and sediment traps will minimize downstream sedimentation during  
9           construction of the stream crossings.
- 10          • Pollutant Management – During construction, source control measures will be  
11          implemented to reduce the potential of chemical pollution to surface water or  
12          groundwater during construction. Chemical pollution could occur as a release of  
13          diesel fuel or lubricating oils, or from improper debris and waste handling. Small  
14          quantities of fuels and oils may be maintained on-site during construction and  
15          operation, and will be stored in a dedicated area, and construction vehicles will be  
16          fueled and maintained only in dedicated areas. Spills would be cleaned up  
17          immediately.
- 18          • Construction Timing – To the extent practicable, construction activities would be  
19          scheduled to occur in the dry season, when soils are less susceptible to compaction.  
20          Similarly, soil disturbance should be postponed when soils are excessively wet such  
21          as following a precipitation event.

22  
23 In order to ensure that these measures and BMPs are implemented as described by the  
24 applicant, and to reduce potential impacts to soils, the Council adopts the following condition  
25 with administrative changes included in the proposed order clarifying that the requirements  
26 apply prior to construction.<sup>85</sup> The condition would require the applicant to implement the  
27 measures and BMPs described here as part of the final ESCP recommended per Soil Protection  
28 Condition 1:<sup>86</sup>

29  
30           **Soil Protection Condition 2:** During construction, the erosion and sediment control best  
31           management practices and measures as described in ASC Exhibit I, Section 5.2 and listed in

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<sup>85</sup> In the draft proposed order, recommended Soil Protection Condition 2 stated, “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 Erosion and Sediment Control Plan.”

<sup>86</sup> On the record of the public hearing, Ms. Gilbert’s/FGRV’s Issues 9 and 10 requested that the Council impose schedules for soil protection monitoring activities implemented during construction. Recommended Soil Protection Condition 1 would require the certificate holder to conduct all work in compliance with a final ESCP. The final ESCP is required per the NPDES 1200-C permit, which is regulated by DEQ. The applicant has submitted the NPDES 1200-C permit application to DEQ which includes a monthly implementation schedule for all proposed BMPs included in the draft ESCP for the duration of proposed facility construction. Therefore, additional schedule requirements are unnecessary. WRWAPPDoc73 DPO Public Comment\_I. Gilbert 2016-05-19.

1 the final order approving the site certificate shall be included and implemented as part of  
2 the final Erosion and Sediment Control Plan.

3  
4 *Potential Soil Impacts from Spills*

5  
6 The applicant stated that it would not store substantial quantities of oil, fuel, or chemicals such  
7 as cleaners and degreasers, herbicides and insecticides, or paints, on-site during construction  
8 (or operation), and that the quantities of these materials, except for fuel, would be comparable  
9 to household levels of not more than a few gallons.<sup>87</sup> The applicant stated that the greatest risk  
10 of a material spill that could affect soils would be during vehicle and equipment refueling and  
11 maintenance. While “substantial quantities” is not defined in Exhibit I, the applicant stated that  
12 it would store approximately 1,000 gallons of diesel fuel and 500 gallons of gasoline onsite  
13 during construction in above-ground storage tanks. The storage area would be in the  
14 construction yards, in an area with secondary containment.

15  
16 Due to the large quantities of fuel expected to be stored onsite, in order to reduce the risk of  
17 spills, and to contain any spills that do occur, the applicant or its construction contractor would  
18 develop and implement a Spill Prevention, Control, and Countermeasure (SPCC) plan. The SPCC  
19 plan would describe procedures and BMPs to be followed by contractors during such activities  
20 as equipment refueling, and controlling, containing, and cleaning up any spills that accidentally  
21 occur. The SPCC plan would contain at a minimum the procedures and BMPs as described in  
22 Exhibit G, Section 4.1, as well as the requirements for oil and hazardous material emergency  
23 response pursuant to DEQ rules at OAR 340, Division 142.

24  
25 The procedures and BMPs to be included in the SPCC plan include the measures as described in  
26 Exhibit G and summarized here:

- 27 • Preventative Measures and Procedures to Avoid Spills
  - 28 ○ Procedures for chemical storage
  - 29 ○ Procedures for chemical transfer
  - 30 ○ Procedures for chemical transportation
  - 31 ○ Procedures for fueling and maintenance of equipment and vehicles
  - 32 ○ Employee training and education
- 33 • Clean-up and response procedures, in case of an accidental spill or release
- 34 • Proper storage procedures
- 35 • Reporting procedures in case of an accidental spill or release

36  
37 The Council finds that implementation of the SPCC plan as described above and in the ASC  
38 would reduce the potential for accidental hazardous material spills to adversely impact soils,  
39 and would contain procedures to properly manage, contain, and reduce the significance of any

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<sup>87</sup> ASC, Exhibit G, p. 5.

1 spills that unintentionally occur during construction.<sup>88</sup> In order to ensure implementation of  
2 these measures, the Councils adopt, as amended, the following condition requiring the  
3 applicant to develop and implement a DEQ-approved SPCC plan in order to protect soils and  
4 mitigate potential significant adverse impacts to soils:<sup>89</sup>

5  
6 **Soil Protection Condition 3:** Prior to beginning construction, the certificate holder shall  
7 provide a copy of a DEQ-approved construction Spill Prevention Control and  
8 Countermeasures (SPCC) plan, to be implemented during facility construction. The SPCC  
9 plan shall include the measures described in Exhibit I of ASC and in the final order approving  
10 the site certificate.

11  
12 An SPCC plan is a requirement under federal law, outside Council jurisdiction. While the Council  
13 does not have the authority to approve the plan itself, compliance with the plan can be used to  
14 support an affirmative finding of compliance with the Soil Protection standard. Therefore, the  
15 Council imposes the above referenced amendment to Soil Protection Condition 3.

16  
17 In addition to potential impacts from erosion and spills, agricultural soils can be compacted by  
18 heavy equipment during construction, and impacted by inappropriate or incomplete  
19 restoration and revegetation post-construction. The measures described below to reduce  
20 erosion and spill risk would help protect agricultural soils. To further protect and restore  
21 agricultural soils, the applicant would avoid construction during wet weather, which can  
22 exacerbate soil compaction. During post-construction restoration of temporary features, the  
23 applicant would loosen agricultural soil to a depth of six feet to reduce the potential effects of  
24 compaction. Finally, during construction of temporary features, the applicant would excavate  
25 and store soils by soil horizon, so that the soils could be replaced and restored appropriately,  
26 including replacing topsoil on the surface. Construction timing to avoid work during the wet  
27 season is included as part of Soil Protection Condition 2. In order to ensure that soils are  
28 properly stored and backfilled by soil horizon and that topsoil is preserved and maintained, the

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<sup>88</sup> On the record of the public hearing, Ms. Gilbert's/FGRV's requested that recommended Soil Protection Condition 3 be revised to indicate that the SPCC plan be implemented prior to and not during construction, and that the SPCC plan needs to be continuously in force during operations. On the record of the public hearing, the applicant explained that implementation of the construction SPCC plan, per recommended Soil Protection Condition 3, should occur when hazardous substances are present (i.e. during construction) and not prior to the substances being onsite. The applicant further noted that recommended Soil Protection Condition 5 requires implementation of an SPCC plan during operation. Based on the existing language of the condition, the SPCC plan would be required to be developed and approved prior to construction. The BMPs would be implemented during construction. Use of "prior to," as requested by Ms. Gilbert/FGRV could be construed as a pre-construction requirement or facility design component. The intent of the condition as drafted is for implementation of approved measures to occur during construction, not as a pre-construction condition. WRWAPPDoc73 DPO Public Comment\_I. Gilbert 2016-05-19; WRWAPPDoc85 DPO Public Comment (Applicant)\_D. Petersen 2016-06-06.

<sup>89</sup> In the draft proposed order, recommended Soil Protection Condition 3 stated, "Prior to beginning construction, the certificate shall prepare and submit to the department for review and approval a construction Spill Prevention Control and Countermeasures (SPCC) plan, to be implemented during facility construction. The SPCC plan shall include the measures described in Exhibit I of ASC and in the final order approving the site certificate."



1 Council adopts the following condition with administrative changes included in the proposed  
2 order clarifying that the requirements apply prior to construction.<sup>90</sup> The condition requires that  
3 the final Revegetation Plan include a program to protect and restore agricultural soils:  
4

5 **Soil Protection Condition 4:** Prior to construction, the certificate holder shall ensure that  
6 the final Revegetation Plan includes a program to protect and restore agricultural soils  
7 temporarily disturbed during facility construction. As described in the final order,  
8 agriculture soils shall be properly excavated, stored, and replaced by soil horizon. Topsoil  
9 shall be preserved and replaced. The Revegetation Plan shall be finalized pursuant to Fish  
10 and Wildlife Condition 11.  
11

12 Fish and Wildlife Condition 11 requires the applicant to finalize the Revegetation Plan prior to  
13 construction, and for the plan to be reviewed and approved by the department in consultation  
14 with Morrow and Umatilla counties and ODFW.  
15

#### 16 Measures to Mitigate Adverse Impacts to Soils during Proposed Facility Operation 17

18 Based on the applicant’s description, facility operation would be unlikely to lead to adverse  
19 impacts to soil. Areas temporarily disturbed during construction would be restored to pre-  
20 construction conditions and replanted with appropriate vegetation, thus reducing the potential  
21 for facility-related erosion or issues related to changing drainage patterns. As described above,  
22 the applicant stated that minor quantities of oil, lubricants, cleaners, and solvents would be  
23 stored onsite during operation in the O&M buildings, with the amount being no greater than  
24 household quantities; in addition, up to two 55-gallon drums of hydraulic oil and gearbox oil  
25 may be maintained onsite for maintenance activities. In ASC Exhibit G, the applicant explained  
26 that “household quantities” refers to container sizes designed for consumer use, sized such that  
27 each container would hold less than a reportable quantity of any constituent hazardous  
28 chemical. The applicant also explained that “reportable quantity” refers to the amount of  
29 hazardous substance that has to be released into the environment before the EPA requires  
30 notification of the release to the National Response Center pursuant to the Comprehensive  
31 Environmental Release, Compensation, and Liability Act (CERCLA), also known as Superfund.<sup>91</sup>

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<sup>90</sup> In the draft proposed order, recommended Soil Protection Condition 4 stated, “The final revegetation plan shall include a program to protect and restore agricultural soils temporarily disturbed during facility construction. As described in this order, agriculture soils shall be properly excavated, stored, and replaced by soil horizon. Topsoil shall be preserved and replaced. The revegetation plan would be finalized under recommended Fish and Wildlife Condition 11.”

<sup>91</sup> On the record of the public hearing, Ms. Gilbert/FGRV disagreed that the amount of hazardous materials to be stored onsite during proposed facility operation should be referred to as “household quantities.” However, the term “household quantities” is specific to container sizes that, if resulting in a spill, would not result in quantities required to be reported pursuant to federal CERCLA requirements. WRWAPPDoc68 DPO Public Comment\_I. Gilbert 2016-05-19.

1 Periodically, the turbine gearboxes would need an oil change; the applicant stated that this  
2 would be done by a licensed contractor, and used oil would be removed offsite.<sup>92</sup>

3  
4 ASC Exhibit G explained that during operation, an SPCC does not appear to be necessary and  
5 that neither an SPCC nor secondary containment is required for materials stored in oil-qualified  
6 equipment.<sup>93</sup> However, as noted above, some quantities of potentially-hazardous materials will  
7 be stored on-site for use during facility operation in less than “reportable quantities.”  
8 Therefore, in order to protect soils and the environment during operation, and to reduce or  
9 eliminate potential significant adverse impacts from accidental spills or releases during  
10 operation, the Council adopts the following condition, as amended, requiring the applicant to  
11 develop and implement a DEQ-approved SPCC plan, if determined necessary, or in the  
12 alternative develop and implement a department-approved Spill Prevention and Management  
13 Plan:<sup>94</sup>

14  
15 **Soil Protection Condition 5:** Prior to beginning facility operation, the certificate holder shall  
16 provide the department a copy of a DEQ-approved operational SPCC plan, if determined to  
17 be required by DEQ. If an SPCC plan is not required by DEQ, the certificate holder shall  
18 prepare and submit to the department for review and approval an operational Spill  
19 Prevention and Management plan. The Spill Prevention and Management Plan shall include  
20 at a minimum the following procedures and BMPs:

- 21 • Procedures for oil and hazardous material emergency response consistent with OAR  
22 340, Division 142
- 23 • Procedures demonstrating compliance with all applicable local, state, and federal  
24 environmental laws and regulations for handling hazardous materials used onsite in  
25 a manner that protects public health, safety, and the environment
- 26 • Current inventory (type and quantity) of all hazardous materials stored onsite,  
27 specifying the amounts at each O&M building
- 28 • Restriction limiting onsite storage of diesel fuel or gasoline
- 29 • Requirement to store lubricating and dielectric oils in quantities equal to or greater  
30 than 55-gallons in qualified oil-filled equipment
- 31 • Preventative measures and procedures to avoid spills
  - 32 ○ Procedures for chemical storage
  - 33 ○ Procedures for chemical transfer

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<sup>92</sup> ASC, Exhibit G, p. 8.

<sup>93</sup> The draft proposed order included an incorrect reference to applicant representations in ASC Exhibit G which have been removed from the proposed order. The draft proposed order incorrectly indicated that the applicant stated that it would develop and implement an operational SPCC. The proposed order clarified that the applicant stated that an operational SPCC does not appear to be necessary based on quantities of materials to be stored onsite during operations.

<sup>94</sup> In the draft proposed order, recommended Soil Protection Condition 5 stated, “Prior to beginning facility operation, the certificate holder shall prepare and submit to the department for review and approval an operational Spill Prevention and Countermeasures (SPCC) plan, to be implemented during operation. The SPCC plan shall include the measures described in the final order approving the site certificate and in Exhibit I of the ASC.”

- 1           ○ Procedures for chemical transportation
- 2           ○ Procedures for fueling and maintenance of equipment and vehicles
- 3           ○ Employee training and education
- 4         • Clean-up and response procedures, in case of an accidental spill or release
- 5         • Proper storage procedures
- 6         • Reporting procedures in case of an accidental spill or release

7

8 As described above, the applicant stated that the facility would not be expected to cause soil  
9 erosion during operation. Operations would be confined to gravel surfaced areas including the  
10 apron constructed around each turbine, the site access roads, substations, and O&M buildings.  
11 No additional ground disturbance would be anticipated to occur during facility operations. In  
12 order to maintain compliance with the Soil Protection standard during operation, the Council  
13 adopts the following condition, requiring the applicant to routinely inspect and maintain all  
14 features including roads, pads, or other areas to maintain erosion and sediment control  
15 measures and reduce potential facility contribution to erosion.<sup>95</sup> The condition would also  
16 require that vehicles used for operations and maintenance stay on constructed and improved  
17 access roads, and that maintenance activities occur only within graveled areas or in the O&M  
18 building areas to avoid unnecessary impacts or risks to the area surrounding the facility:

19

20         **Soil Protection Condition 6:** During facility operation, the certificate holder shall:

- 21         a. Routinely inspect and maintain all facility components including roads, pads, and  
22           other facility components and, as necessary, maintain or repair erosion and  
23           sediment control measures and reduce potential facility contribution to erosion.
- 24         b. Restrict vehicles to constructed access roads, and ensure material laydown or  
25           other maintenance activities occur within graveled areas or within the  
26           maintenance area of the O&M buildings to avoid unnecessary compaction,  
27           erosion, or spill risk to the area surrounding the facility.
- 28         c. If in order to serve the operational needs of the energy facility, or related and  
29           supporting facilities, the certificate holder intends to substantially modify an  
30           existing road or construct a new road, the certificate holder must submit and  
31           receive Council approval of an amendment to the site certificate prior to the  
32           modification or construction.

33

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<sup>95</sup> On the record of the public hearing, Ms. Gilbert's/FGRV's Issue 4 requested modification to recommended Soil Protection Condition 6 replacing the term "routine" in (a) to specify a three-month inspection schedule for monitoring activities during facility operation. Pursuant to OAR Chapter 345 Division 26, the certificate holder would be required to submit a plan to the department that includes the method for verifying compliance with each site certificate condition. The certificate holder and the department, in their review of the compliance plan, would determine the compliance method and schedule appropriate for demonstrating compliance with this condition based upon actual activities and site specific conditions. Therefore, the department does not consider specification of an inspection and maintenance schedule within the condition necessary or appropriate to ensure minimization of potential significant adverse impacts to soil during proposed facility operations. The Council agrees that modification of Soil Protection Condition 6, as requested by Ms. Gilbert/FGRV, is not necessary or required to satisfy the Council's Soil Protection standard. WRWAPPDoc73 DPO Public Comment\_I. Gilbert 2016-05-19.

1 On the record of the May 19, 2016 hearing, Ms. Gilbert/FGRV disagreed with the applicant's  
2 representation that O&M activities would not result in impacts to soil erosion, particularly O&M  
3 activities associated with the proposed intraconnection transmission line.<sup>96</sup> As explained in  
4 Exhibit B, *Project Description*, the applicant has not proposed permanent access roads to  
5 support O&M of the intraconnection transmission line. Similarly, the applicant has presented in  
6 ASC Exhibits C, *Location, P, Fish and Wildlife Habitat* and K, *Land Use*, that there would be no  
7 permanent access roads nor permanent impacts associated with O&M of the intraconnection  
8 transmission line.<sup>97</sup>

9  
10 As explained in ASC Exhibit B, *Project Description*, the applicant indicated that permanent  
11 access roads would not be needed for O&M of the intraconnection transmission line and that  
12 unimproved farm access tracks and field crossings would sufficiently serve the light duty trucks  
13 that would generally be used for O&M activities. Because use of unimproved farm access tracks  
14 and field crossings could result in potential significant adverse impacts to soil and in order to  
15 ensure compliance with the Council's Soil Protection standard, as recommended in the draft  
16 proposed order, Soil Protection Condition 6 would restrict vehicle use during facility operations  
17 to constructed access roads. The Council considers constructed access roads to include existing  
18 constructed roads, which are not substantially modified for the facility, and constructed and  
19 improved roads approved as a related and supporting facility to the energy facility. After further  
20 review and to ensure minimization of potential significant adverse impacts to soil compaction  
21 and erosion during facility O&M, the department recommended in the proposed order that Soil  
22 Protection Condition 6 be modified to include subpart (c) clarifying that if, in order to serve the  
23 operational needs of the energy facility or related and supporting facilities, the certificate  
24 holder intends to substantially modify an existing road or construct a new road, an amendment  
25 to the site certificate would be needed. The Council agrees that subpart (c) provides  
26 clarification necessary to ensure that potential impacts from road construction, not previously  
27 evaluated, do not occur without prior Council approval. The Council therefore imposes Soil  
28 Protection Condition 6, as amended in the proposed order.

29  
30 The facility would include up to two O&M buildings, each with an onsite septic system to  
31 manage sewage waste. As described in Exhibits V and E, the applicant would obtain any  
32 necessary permits for the septic systems directly from DEQ and these permits are not included  
33 in or governed by the site certificate. However, to ensure that soils are protected and the septic  
34 systems properly permitted and installed, the Council adopts the following condition, requiring

---

<sup>96</sup> WRWAPPDoc68 DPO Public Comment\_I. Gilbert 2016-05-19

<sup>97</sup> On the record of the June 6, 2016 public hearing, in response to Ms. Gilbert/FGRV's comments disagreeing with the applicant's representation that O&M activities would not result in impacts to soil erosion, the applicant stated that Soil Protection Condition 2 would require the applicant to implement mitigation measures and best management practices for erosion and sediment control, and that Ms. Gilbert/FGRV identifies no evidence suggesting that these measures and practices would be insufficient. The department notes and the Council agrees that recommended Soil Protection Condition 2 would apply during construction of the facility and therefore does not specifically address Ms. Gilbert/FGRV's comment. WRWAPPDoc85 DPO Public Comment (Applicant)\_D. Petersen 2016-06-06.

1 the applicant secure necessary septic system permits from DEQ prior to facility construction.  
2 The O&M building septic systems must be constructed in accordance with the DEQ permits.

3  
4 **Soil Protection Condition 7:** Prior to beginning construction of the O&M buildings, the  
5 certificate holder shall secure any necessary septic system permits from DEQ. Copies of the  
6 necessary permits must be provided to the department prior to beginning construction of  
7 the O&M buildings.

8  
9 Monitoring

10  
11 The applicant states that a formal monitoring program would not be necessary. However, a  
12 monitoring program would be required as part of the ESCP and NPDES 1200-C permit, and the  
13 monitoring schedule is described in the ESCP submitted as Exhibit I, Attachment I-3. The ESCP,  
14 including the monitoring component, would be required to be implemented in accordance with  
15 DEQ requirements and Soil Protection Condition 1. In addition, the Revegetation Plan, required  
16 under Mandatory Condition 6 and Fish and Wildlife Condition 11, also includes a monitoring  
17 program. Finally, Soil Protection Condition 6 requires a regular inspection of facility features  
18 and erosion and sediment control measures to reduce the facility's contribution to erosion.<sup>98</sup>

19  
20 Subject to compliance with the conditions above, the Council finds the design, construction,  
21 and operation of the facility would not result in a significant adverse impact to soils.

22  
23 Conclusions of Law

24  
25 Based on the foregoing findings of fact and conclusions, and subject to compliance with the site  
26 certificate conditions, the Council finds that the facility complies with the Council's Soil  
27 Protection standard.

28  
29 **IV.E Land Use [OAR 345-022-0030]**

30  
31 *(1) To issue a site certificate, the Council must find that the proposed facility complies with*  
32 *the statewide planning goals adopted by the Land Conservation and Development*  
33 *Commission.*

34  
35 *(2) The Council shall find that a proposed facility complies with section (1) if:*

36  
37 *(a) The applicant elects to obtain local land use approvals under ORS 469.504(1)(a) and*

---

<sup>98</sup> On the record of the public hearing, T. Lindsay expressed concern that the proposed facility would result in erosion from increased runoff, increase noxious weed infestation due to significant site disturbances and seed transport, increased fire danger and increased insect damage due to cost of chemical application. Based on the evidence included in the ASC and the department's analysis, the department has recommended conditions included in the proposed order related to Soil Protection, Fish and Wildlife habitat, and Mandatory Conditions which would reduce and minimize potential adverse impacts related to erosion and weed infestation. WRWAPPDoc115 DPO Public Comment\_T. Lindsay 2016-06-06.

1           *the Council finds that the facility has received local land use approval under the*  
2           *acknowledged comprehensive plan and land use regulations of the affected local*  
3           *government; or*

4  
5           ***(b) The applicant elects to obtain a Council determination under ORS 469.504(1)(b) and***  
6           ***the Council determines that:***

7  
8           ***(A) The proposed facility complies with applicable substantive criteria as described in***  
9           ***section (3) and the facility complies with any Land Conservation and***  
10           ***Development Commission administrative rules and goals and any land use***  
11           ***statutes directly applicable to the facility under ORS 197.646(3);***

12  
13           ***(B) For a proposed facility that does not comply with one or more of the applicable***  
14           ***substantive criteria as described in section (3), the facility otherwise complies***  
15           ***with the statewide planning goals or an exception to any applicable statewide***  
16           ***planning goal is justified under section (4); or***

17  
18           ***(C) For a proposed facility that the Council decides, under sections (3) or (6), to***  
19           ***evaluate against the statewide planning goals, the proposed facility complies***  
20           ***with the applicable statewide planning goals or that an exception to any***  
21           ***applicable statewide planning goal is justified under section (4).***

22  
23           ***(3) As used in this rule, the “applicable substantive criteria” are criteria from the affected***  
24           ***local government’s acknowledged comprehensive plan and land use ordinances that are***  
25           ***required by the statewide planning goals and that are in effect on the date the applicant***  
26           ***submits the application. If the special advisory group recommends applicable***  
27           ***substantive criteria, as described under OAR 345-021-0050, the Council shall apply them.***  
28           ***If the special advisory group does not recommend applicable substantive criteria, the***  
29           ***Council shall decide either to make its own determination of the applicable substantive***  
30           ***criteria and apply them or to evaluate the proposed facility against the statewide***  
31           ***planning goals.***

32           \*\*\*

33  
34           **Findings of Fact**

35  
36           Under OAR 345-021-0010(1)(k), an applicant must elect to address the Council’s Land Use  
37           standard by obtaining local land use approvals under ORS 469.504(1)(a) or by obtaining a  
38           Council determination under ORS 469.504(1)(b). As stated in the ASC, the applicant elected to  
39           have the Council make the land use determination under ORS 469.504(1)(b) and OAR 345-022-

1 0030(2)(b) for the facility. The applicant provided an analysis of compliance with the Council’s  
2 Land Use standard in Exhibit K of the ASC.<sup>99</sup>

3  
4 The Council must apply the Land Use standard in conformance with the requirements of ORS  
5 469.504. Under ORS 469.504(1)(b)(A), the Council may find compliance with statewide planning  
6 goals if the Council finds that the proposed facility “complies with applicable substantive  
7 criteria from the affected local government’s acknowledged comprehensive plan and land use  
8 regulations that are required by the statewide planning goals and in effect on the date the  
9 application is submitted.” The applicant submitted a pASC on December 19, 2014. As described  
10 in Exhibit C of the ASC, the facility would be located in portions of Umatilla and Morrow  
11 counties; therefore, Umatilla and Morrow counties are the affected local governments for  
12 purposes of the evaluation necessary for compliance with the Council’s Land Use standard.  
13 The land use analysis begins with the identification of “applicable substantive criteria” from the  
14 affected local governments. As the governing body of Umatilla and Morrow counties, the  
15 Council appointed the Umatilla County Board of Commissioners and the Morrow County Court  
16 as the SAGs for the proposed facility on November 2, 2012.<sup>100</sup> The department provided notice  
17 of the pASC and complete ASC to the SAGs on January 7, 2015 and July 16, 2015, respectively.  
18 Umatilla County provided applicable substantive criteria including provisions from Umatilla  
19 County’s 2014 Development Code (UCDC) and Umatilla County’s 2014 Comprehensive Plan  
20 (UCCP). Morrow County provided applicable substantive criteria including provisions from the  
21 Morrow County Zoning Ordinance (MCZO), Fish and Wildlife Habitat Protection Plan for  
22 Morrow County (dated January 1979) and Morrow County Comprehensive Plan (MCCP). The  
23 applicant indicates that Exhibit K demonstrates that the facility would comply with all of the  
24 applicable substantive criteria in both Morrow and Umatilla County.

25  
26 In each county, a Conditional Use Permit would be required for those parts of the facility  
27 located in that county. County approvals would also be required for those portions of the  
28 proposed intraconnection line(s)<sup>101</sup> located in each county. Because the Council will make the  
29 land use decisions, each county’s issuance of its land use approvals would be governed by the  
30 site certificate. In accordance with ORS 469.401(3), after issuance of a site certificate, Umatilla  
31 and Morrow counties shall “upon submission by the applicant of the proper applications and  
32 payment of proper fees, but without hearings or other proceedings” promptly issue the related  
33 permits and approvals, subject only to the conditions set forth in the site certificate.

34  
35 The applicant did not propose an interconnection transmission line to connect the wind power  
36 generation facility to the electrical grid. Instead, the applicant represented in ASC Exhibit B that  
37 the facility would be connected to the grid via overhead 230 kV transmission lines (also referred

---

<sup>99</sup> In response to a request from the department, the applicant submitted a revised Exhibit K in January 2016. Unless otherwise stated, all references in this proposed order to Exhibit K are references to the revised Exhibit K dated January 2016.

<sup>100</sup> WRWNOIDoc039, SAG Appointment Umatilla and Morrow Counties, 11-02-2012.

<sup>101</sup> As described in ASC Exhibit B, the applicant proposed either one or two intraconnection transmission lines that would run between the substations in Wheatridge East and Wheatridge West.

1 to as gen-tie lines) that would be permitted, constructed, and owned by either UEC or UEC in  
2 partnership with the CBEC. The applicant indicated that the interconnection lines would be  
3 operated by BPA. The applicant included potential interconnection transmission routes in the  
4 figures included in ASC Exhibit C. However, because the interconnection transmission line is not  
5 proposed by the applicant in the ASC, it is not a related or supporting facility for purposes of the  
6 proposed facility ASC.<sup>102</sup> The interconnection line has been evaluated as a third party permit  
7 under the Council’s Organizational Expertise standard (Section IV.B of this final order) because  
8 the Council would ordinarily determine compliance if the applicant, rather than a third party,  
9 were seeking the necessary permits and approvals for the interconnection line.

10  
11 Section IV.E.1 of this final order addresses the applicable substantive criteria from the MCZO,  
12 MCCP, the Fish and Wildlife Protection Plan for Morrow County, and state rules directly  
13 applicable to the facility. Section IV.E.2 addresses the applicable criteria from the Umatilla  
14 County.

#### 15 16 **IV.E.1 Morrow County**

17  
18 The majority of the proposed facility would be located within Morrow County. Wheatridge  
19 West would be located entirely within Morrow County. A large portion of Wheatridge East  
20 would be located in Morrow County, and the majority of the corridor for the intraconnection  
21 lines would be located within Morrow County. As described in Exhibit B and depicted in the ASC  
22 Exhibit C figures, the applicant would construct the following energy facility and related or  
23 supporting facilities within Morrow County: wind turbines and turbine pads, electrical collection  
24 system, up to two substations, an intraconnection transmission line (or two parallel lines),  
25 meteorological towers, an O&M building, and new and improved access roads. The applicant  
26 would also develop temporary construction areas within Morrow County.

#### 27 28 **Morrow County Applicable Substantive Criteria**

29  
30 The Council appointed the Morrow County Court as a SAG pursuant to ORS 469.480(1). The  
31 Morrow County Planning Director provided a list of the applicable substantive criteria on behalf

---

<sup>102</sup> ORS 469.300(24) defines “related or supporting facilities” as “any structure, proposed by the applicant, to be constructed or substantially modified in connection with the construction of an energy facility, including associated transmission lines...” The applicant has also argued that the interconnection line is not a “related or supporting facility” for purposes of this site certificate application pursuant to the definition in Council rule at OAR 345-001-0010(51) because the interconnection line may eventually be used by other facilities and therefore, the applicant contended it is not clear if the transmission line “would not be built but for construction or operation of the energy facility.” The department believes the evaluation of potential future users of the interconnection transmission line is too speculative, and therefore recommended that the Council find that the interconnection transmission line is not a related or supporting facility for purposes of this application under the statutory definition alone. The Council concurs and finds that the interconnection transmission line is not a related or supporting facility for purposes of this application. The interconnection transmission line is discussed in greater detail below in response to a Umatilla County comment.



1 of the Morrow County Court.<sup>103</sup> The applicable substantive criteria related to each type of  
 2 facility land use, in effect on the date the applicant submitted the ASC, are presented in Table  
 3 LU-1 below.

4

**Table LU-1: Applicable Substantive Criteria<sup>104</sup>**

| <b>Morrow County Zoning Ordinance (MCZO)</b>  |   |
|---|---|
| <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                        |
| <b>Morrow County Comprehensive Plan</b>   |   |
| Agricultural Policy 1<br>Energy Policies 2 and 3<br>Fish and Wildlife Protection Plan (Attachment to M CCP) |   |

5

6

7 **Morrow County Zoning Ordinance**

8

9 The applicant assesses the facility in Morrow County as two separate land uses under the  
 10 MCZO:

11

- Commercial Utility Facility (consisting of wind turbines, electrical collection system, substations, meteorological towers, O&M building, and new and improved access roads)

12

13

14

<sup>103</sup> WRWNOIDOC13, Morrow County Comment, 04-12-2013 and WRWAPPDoc10, Public Comment Morrow County, 02-09-2015.

<sup>104</sup> Morrow County also provided comments on the Morrow County Solid Waste Management Ordinance and the Morrow County Weed Control Ordinance. However, Morrow County clarified that those two ordinances do not contain applicable substantive criteria for purposes of the Council’s Land Use standard. (WRWAPPDoc10, Public Comment Morrow County, 02-09-2015). The applicant addressed the Solid Waste Management Ordinance in Exhibit V and the Weed Control Ordinance in Exhibit P.

- Utility Facility Necessary for Public Service (consisting of the intraconnection transmission line(s))

The following analysis addresses the applicable substantive criteria identified in the MCZO.

### Article 3. Use Zones

#### *MCZO Section 3.010 Exclusive Farm Use, EFU Zone*

*In an EFU Zone, the following regulations shall apply:*

##### *Section 3.010.A. PURPOSE*

*The purpose of the Exclusive Farm Use Zone is to preserve and maintain agricultural lands for farm use consistent with historical, existing, and future needs, including economic needs that pertain to the production of agricultural products, and to permit the establishment of only those uses that are compatible with agricultural activities.*

*Uses, buildings, or structures hereafter erected, structurally altered, enlarged, or moved and land hereafter used in the Exclusive Farm Use Zone shall comply with the following regulations.*

In addressing the purpose statement, the applicant correctly stated that the uses it proposed in connection with the facility are permissible uses within the Morrow County EFU zone, either outright or as conditional uses.<sup>105</sup> The Council agrees that all proposed uses are consistent with the purpose of Morrow County's EFU zone.

##### *Section 3.010.C. USES PERMITTED OUTRIGHT.*

*In an EFU Zone the following uses and accessory uses thereof are permitted outright:*

##### *Section 3.010(C)(16) Utility and transmission towers not exceeding 200 feet in height.*

MCZO Section 3.010(C)(16) establishes utility and transmission towers less than or equal to 200 feet in height as a land use change within an EFU zone that would be permitted outright. As described in Exhibit B, the facility includes up to 32 miles of either a single or double circuit 230 kV transmission line (intraconnection line). The intraconnection line would include transmission line structures that could extend up to 150-feet in height. Based on the maximum structure height for the intraconnection line towers, the structures would not exceed the 200-foot height restriction established per MCZO Section 3.010(C)(16) and the towers would be permitted outright under the MCZO.

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<sup>105</sup> Generally, purpose statements are not applicable substantive criteria for purposes of land use approval. However, Morrow County identified the purpose statement as an applicable substantive criterion and the applicant addressed the purpose statement in ASC Exhibit K. Therefore, the purpose statement is also addressed in this proposed order. However, no affirmative finding of compliance is required.

1  
2 However, under ORS 215.283(1), transmission towers under 200 feet in height are not listed in  
3 isolation as a use permitted in an EFU zone. Instead, pursuant to ORS 215.283(1)(c), “utility  
4 facilities necessary for public service, including wetland waste treatment systems but not  
5 including...transmission towers over 200 feet in height” are uses permitted in the EFU zone  
6 subject to the necessary for public service test at ORS 215.275. The “utility facility necessary for  
7 public service” use category is listed as a use category at MZCO 3.010(D)(16) and is addressed  
8 below.

9  
10 *Section 3.010.D. CONDITIONAL USES PERMITTED.*

11 *In an EFU Zone, the following uses and their accessory uses are permitted subject to*  
12 *demonstration of compliance with the requirements of Article 6 of this ordinance and*  
13 *Section (G) below:*

14  
15 *Section 3.010(D)(15) Commercial utility facilities for the purposes of generating*  
16 *power for public use by sale. A power generation facility shall not preclude more*  
17 *than 12 acres of high value farmland or 20 acres of other land from commercial farm*  
18 *use unless an exception is approved pursuant to OAR 660 Division 4.*

19  
20 With the exception of the 230 kV transmission lines (intraconnection lines), which are  
21 addressed and allowed under MCZO Section 3.010(D)(16), all components of the wind energy  
22 facility and its related or supporting facilities would be a “commercial utility facility for the  
23 purposes of generating power for public use by sale.” This use is permitted in the EFU Zone,  
24 “subject to demonstration of compliance with the requirements of Article 6 of this ordinance  
25 and Section (G).”

26  
27 MCZO 3.010(D)(15) identifies “commercial utility facilities for the purposes of generating power  
28 for public use by sale” as a conditional use in the EFU zone and establishes limits of 12 acres for  
29 high value farmland or 20 acres for other commercial farm land, depending upon the soil  
30 capability of the land. The applicant’s analysis presented in Exhibit K relies upon this land use  
31 category for evaluating compliance with the local code and a demonstration of compliance with  
32 the Council’s Land Use standard. The facility would preclude more than 20 acres from  
33 commercial farm use and therefore under the MCZO a Goal 3 exception would be needed.  
34 However, in 2008 the Land Conservation and Development Commission (LCDC) amended the  
35 administrative rules governing conditional uses in EFU zones. The amendments revised the OAR  
36 660-033-0120 Table 1 by expressly excluding wind power generation facilities from the general  
37 “commercial utility facility” land use category, and adding “wind power generation facilities as  
38 commercial utility facilities for the purpose of generating power for public use by sale” as a  
39 separate use category. As a result of the amendments, the conditional use standards at OAR  
40 660-033-0130(37) apply to a proposed “wind power generation facility” in EFU zoned land, and  
41 the conditional use standards at OAR 660-033-0130(17) and (22) no longer apply to wind  
42 facilities. Morrow County has not amended MCZO Section 3.010 to reflect the 2008  
43 amendments. Because the applicable OAR 660-033-0130 provisions conflict with the local  
44 code’s application of strict acreage limitations to a wind facility, the local code use categories

1 and requirements are inconsistent with the amended OAR 660-033-0130 rules for a wind power  
2 generation facility. Accordingly, the Council is not required to apply both the current OAR 660-  
3 033-0130 rules and the local code, and instead must only apply the OAR 660-033-0130(37) rules  
4 to this wind power generation facility. As a result, a Goal 3 exception would not be needed for  
5 this proposed facility.<sup>106</sup>

6  
7 The Council finds that the wind energy facility is a commercial utility facility for the purpose of  
8 generating power for public use by sale pursuant to the MCZO that is subject to the conditional  
9 use requirements of MCZO Article 6. The Council further finds that the wind energy facility is a  
10 wind power generation facility pursuant to OAR 660-033-0120 and that the conditional use  
11 standards at OAR 660-033-0130(37) apply instead of the acreage limitations in MCZO Section  
12 3.010(15)(D). Compliance with the applicable MCZO Article 6 conditional use provisions and the  
13 directly applicable OAR 660-033-130(37) standards is addressed below.<sup>107</sup>

14  
15 *Section 3.010(D)(16) Utility facilities “necessary” for public service, excluding commercial*  
16 *utility facilities for the purpose of generating power for public use by sale, and*  
17 *transmission towers over 200 feet in height. A utility facility is necessary for public*  
18 *service if the facility must be sited in an exclusive farm use zone in order to provide the*  
19 *service. To demonstrate that a utility facility is necessary, an applicant must show that*  
20 *reasonable alternatives have been considered and that the facility must be sited in an*  
21 *exclusive farm use zone due to one or more of the factors listed in OAR 660-033-*  
22 *0130(16).*

23  
24 As described in Exhibit B, the facility would include up to two parallel transmission lines  
25 (intraconnection lines) extending up to 32 miles in total length. The intraconnection lines would  
26 be located entirely within EFU zoned land of Morrow and Umatilla counties. Consistent with  
27 past site certificate orders, the Council reviews the intraconnection lines as “utility facilities  
28 necessary for public service” because the intraconnection transmission structures and lines are  
29 indistinguishable from interconnection or other types of transmission towers or lines. Utility  
30 facilities necessary for public service are permitted in the EFU zone, subject to the criteria  
31 established in OAR 660-033-0130(16), which mirror the requirements of ORS 215.275.

32 Notwithstanding the language in the County’s code, the conditional use requirements beyond  
33 those that are consistent with ORS 215.275 are not applicable to the intraconnection lines

---

<sup>106</sup> The applicant requested a Goal 3 exception in its original ASC Exhibit K. However, in the revised January 2016 Exhibit K, the applicant agreed with the department that an exception is not needed, and instead demonstrated that the entire proposed facility, in both Morrow and Umatilla County, complies with OAR 660-033-0130(37). However, in the event it is later determined that MCZO 3.010(D)(16) applies, the applicant has expressly preserved its request for a goal exception through Exhibit K, Attachment K-5. Because the Council only applies OAR 660-033-0130(37) to this facility, the exception to Goal 3 preserved through Attachment K-5 is not addressed in this final order.

<sup>107</sup> Because OAR 660-033-0130(37) also applies to the portions of the facility in Umatilla County pursuant to Umatilla County Development Ordinance 152.616(HHH)(6)(k), the applicant provided a consolidated analysis of the rule as applied to both counties in Exhibit K, Attachment K-4. Compliance with OAR 660-033-0130(37) for both counties is addressed below.

1 because, as a utility facility necessary for public service under ORS 215.283(1)(g), the use is  
2 permitted subject only to the requirements of ORS 215.275 and the County cannot impose  
3 additional approval criteria.<sup>108</sup> Therefore, the conditional use requirements of MCZO Article 6  
4 do not apply to the intraconnection transmission lines.

5  
6 The intraconnection line would be located in both Morrow and Umatilla County. Therefore, this  
7 final order addresses compliance with ORS 215.275 for the entire intraconnection transmission  
8 line in Section IV.E.3 below.

9  
10 The Council finds that the intraconnection transmission line is a utility facility necessary for  
11 public service, a use permitted in the EFU zone subject to compliance with OAR 660-033-  
12 0130(16) and ORS215.275.

13  
14 *Section 3.010(G) Dimensional Standard. In an EFU zone, the following dimensional*  
15 *standards shall apply: (Standards 1 through 6 omitted for brevity)*

16  
17 The EFU Dimensional Standards relate to parcel size, the creation of new parcels and the siting  
18 of dwelling within big game habitat. The applicant's request does not require the subdivision of  
19 parcels or the development of dwellings. Therefore, the applicant stated that Section 3.010(G)  
20 contains no applicable substantive criteria for purposes of the requested site certificate. Based  
21 upon the standards included in Section 3.010(G), the Council agrees.

22  
23 Morrow County also generally agreed with the applicant's position on the Section 3.010(G)  
24 standards, but requested setback requirements for the proposed facility.<sup>109</sup> Specifically Morrow  
25 County requested that all turbines be placed a distance of at least 110 percent of turbine height  
26 from the site boundary to protect property owners located outside of the site boundary. The  
27 110 percent setback request does not appear to be required by any identified MCZO sections.  
28 However, the applicant indicated that it does not object to the requested condition and  
29 represents that it would comply.<sup>110</sup> Morrow County further requested that within the site  
30 boundary, wind turbines be placed at least 100 feet from property boundaries. The county  
31 explained that this would assist the county in the future with assessment of the proposed  
32 facility and accurately accounting for each of the proposed facility components.

33  

---

<sup>108</sup> Brentmar v. Jackson County, 321 Or 481, 496 (1995). Morrow County acknowledged in its comments that the identification of utility facilities necessary for public service as a conditional use in its Code is not consistent with state law, stating "Morrow County is not compliant with the Brentmar decision as this is still listed in the Conditional Use Permit section. We do not treat these as CUPs, but as land use decisions with criteria as required by statute." WRWNOIDOC13, Morrow County Comment, 04-12-2013.

<sup>109</sup> WRWAPPDoc10, Agency Comment Morrow County, February 9, 2015. The department notes, and the Council concurs, that Section 3.010(G) does not impose any setback requirements. Section 3.010(H) does include minimum setback requirements for the EFU zone. However, Morrow County did not identify Section 3.010(H) as an applicable substantive criteria for purposes of the Council's Land Use standard.

<sup>110</sup> WRWAPPDoc48, Responses to Agency Comments & Exhibit K Supplemental Response, 11-20-15, p. 11.

1 It does not appear that a 100 foot property line setback is required by Section 3.010(G) or that  
2 it is otherwise uniformly required in the EFU zone by the MCZO. Nonetheless, the applicant  
3 stated that it supported a condition that all wind turbines be sited so that the turbine  
4 foundation would not cross any property boundary, including property boundaries within the  
5 site boundary (participant property boundaries). The applicant further represented that it  
6 would adhere to a 100 foot setback from the tower base to internal participant property  
7 boundaries to the greatest extent practicable, but that strict compliance may not be feasible  
8 due to owner restrictions or physical and environmental factors.<sup>111</sup> Finally Morrow County  
9 requested that the applicant provide an as-built survey once construction of the proposed  
10 facility is complete and in operation. The applicant represented that it would comply with the  
11 request, but recommended some alternative condition language related to the phasing of  
12 development and operation.<sup>112</sup>

13

14 Based on the County's request for specific setbacks and the applicant's response and  
15 representations, the Councils adopt the following conditions with administrative changes  
16 included in the proposed order:

17

18 **Land Use Condition 1:** The certificate holder shall design the facility to comply with the  
19 following wind turbine setback distances in Morrow County:

20

- 21 a. Wind turbines shall be setback from the property line of any abutting property of  
22 any non-participant property owners a minimum of 110 percent of maximum blade  
23 tip height of the wind turbine tower.  
24 b. Wind turbines shall be setback 100 feet from all property boundaries, including  
25 participant property boundaries within the site boundary, if practicable.  
26 c. Wind turbine foundations shall not be located on any property boundary, including  
27 participant property boundaries within the site boundary.

28

29 **Land Use Condition 2:** Within one month of commencement of commercial operation,  
30 the certificate holder shall submit an as-built survey for each construction phase that  
31 demonstrates compliance with the setback requirements in Land Use Condition 1 to the  
32 department and Morrow County.

33

#### 34 Article 4. Supplementary Provisions

35

##### 36 *Section 4.165 Site Plan Review*

37

38 *Site Plan Review is a non-discretionary or "ministerial" review conducted without a public*  
39 *hearing by the County Planning Director or designee. Site Plan Review is for less complex*  
40 *developments and land uses that do not require site development or conditional use review*  
41 *and approval through a public hearing.*

---

<sup>111</sup> Id.

1  
2 *A. Purpose. The purpose of Site Plan Review (ministerial review) is based on clear and*  
3 *objective standards and ensures compliance with the basic development standards of*  
4 *the land use district, such as building setbacks, lot coverage, maximum building height,*  
5 *and similar provisions. Site Plan review also addresses conformity to floodplain*  
6 *regulations, consistency with the Transportation System Plan, and other standards*  
7 *identified below.*

8  
9 *C. Applicability. Site Plan Review shall be required for all land use actions requiring a*  
10 *Zoning Permit as defined in Section 1.050 of this Ordinance. The approval shall lapse,*  
11 *and a new application shall be required, if a building permit has not been issued within*  
12 *one year of Site Review approval, or if development of the site is in violation of the*  
13 *approved plan or other applicable codes.*

14  
15 The Site Plan Review is the county's ministerial review conducted prior to issuance of a zoning  
16 permit, defined under MCZO 1.050 as "an authorization issued prior to a building permit, or  
17 commencement of a use subject to administrative review, stating that the proposed use is in  
18 accordance with the requirements of the corresponding land use zone." The applicant would  
19 be required to secure zoning permits from Morrow County prior to construction of the  
20 facility.<sup>113</sup> The applicant also acknowledged that Morrow County Site Plan Review would be  
21 required prior to issuance of building permits for the portions of the facility in Morrow  
22 County, and indicated that it would demonstrate compliance with the site certificate at that  
23 time. In a comment letter received on the preliminary ASC from Morrow County, on behalf of  
24 the Morrow County Court, the County requested conditions of compliance related to the  
25 County's Site Plan Review.<sup>114,115</sup> Therefore, the Council adopts the following as a condition to  
26 the site certificate:

27  
28 **Land Use Condition 3:** Before beginning construction, the certificate holder shall  
29 complete the following:

- 30 a. Pay the requisite fee and obtain a Zoning Permit from Morrow County  
31 for all facility components sited in Morrow County; and  
32 b. Obtain all other necessary local permits, including building permits.

33  
34 *D. Review Criteria.*

35  
36 *(1) The lot area shall be adequate to meet the needs of the establishment.*  
37

---

<sup>113</sup> Pursuant to ORS 469.401(3), the county must issue a zoning permit upon submittal of the proper applications and fees, but without hearings or other proceedings and subject only to conditions set forth in the site certificate.

<sup>114</sup> WRWAPPDoc10, Morrow County Comment, 02-09-2015.

<sup>115</sup> The County requested for additional Site Plan Review requirements in the recommended conditions. However, while the applicant must comply with the County's applicable Site Plan Review requirements and process, the County's administration of its Site Plan Review process itself is not under Council jurisdiction or review, and therefore, the Council cannot restrict or condition the County's authority in administering that process.

1 The site boundary encompasses 13,097 acres, of which approximately 11,396 acres would be  
2 located within Morrow County. The applicant asserted that based on the siting and design of  
3 the facility, the land leased within Morrow County would provide adequate space to meet the  
4 needs of the facility. Based on the applicant's analysis, the Council finds that the applicant has  
5 secured a site adequate to meet the needs of the facility.

6  
7 *(2) The proposed land use is permitted by the underlying land use district.*

8  
9 The applicant stated that the land uses of the facility would be permissible within Morrow  
10 County. Based on the analysis provided above related to MCZO 3.010(D)(15) and (16) and the  
11 findings in this section of this final order, the Council concurs finds that the applicant has  
12 demonstrated that the facility would be permissible within Morrow County.

13  
14 *(3) The land use, building/yard setback, lot area, lot dimension, density, lot*  
15 *coverage, building height and other applicable standards of the underlying*  
16 *land use district and any sub-district(s) are met.*

17  
18 As presented in Exhibit K, the applicant would design and construct the O&M building and  
19 substations within Morrow County in accordance with applicable substantive criteria  
20 identified by Morrow County. Based on the applicant's representations, the Council finds that  
21 the applicant would design and construct the facility in accordance with the MCZO  
22 4.165(D)(3) review criteria.

23  
24 *(4) Development in flood plains shall comply with Section 3.100 Flood Hazard*  
25 *Overlay Zone of the Ordinance.*

26  
27 The applicant did not propose to construct any structures, defined as "a walled and roofed  
28 building including a gas or liquid storage tank that is principally above ground" within flood  
29 hazard areas of Morrow County. Therefore, the applicant asserted that review criteria under  
30 MCZO Section 4.165(D)(4) and flood hazard overlay zone requirements per MCZO Section  
31 3.100 would not apply to the facility.

32  
33 In revised Exhibit K, the applicant further explained that if improvements not meeting the  
34 definition of a structure under MCZO Section 3.100 are developed within flood hazard areas,  
35 they would either be located underground and not susceptible to flood damage, or consist of  
36 transmission lines high above the ground and with sufficient foundations or pole bedding to  
37 withstand even the most severe flood. The applicant explained that these types of improvements  
38 would not substantively alter the flood regime or flood water storage volume, and therefore  
39 would not exacerbate a flood hazard locally or elsewhere along a stream. Based on this analysis,  
40 the Council finds that the applicant has demonstrated that the design of the facility would be  
41 consistent MCZO Section 3.100.



1                   (5) *Development in hazard areas identified in the Morrow County*  
2                    *Comprehensive Plan shall safely accommodate and not exacerbate the*  
3                    *hazard and shall not create new hazards.*

4  
5 The Natural Hazards Element of the Morrow County Comprehensive Plan identifies hazard  
6 areas as “areas that are subject to natural events that are known to result in death or  
7 endanger the works of man, such as stream flooding, ocean flooding, ground water, erosion  
8 and deposition, landslides, earthquakes, weak foundation soils and other hazards” unique to  
9 the area in question.

10  
11 Flood hazards are addressed above in response to MCZO Section 4.165(D)(4). Other  
12 potential geologic hazards, identified in the MCCP Natural Hazards Element, are discussed in  
13 Exhibit H and addressed in the Structural Standard of this final order. Based on the  
14 applicant’s analysis of flood and geologic hazards and taking into consideration the  
15 conditions in Section IV.C, *Structural Standard*, of this final order the Council concurs that  
16 the facility would safely accommodate and would not exacerbate existing hazards or create  
17 new ones. Therefore, the Council finds that the applicant has demonstrated that the design of  
18 the facility would comply with the MCZO 4.165(D)(5) review criteria.

19  
20                   (6) *Off-street parking and loading-unloading facilities shall be provided as*  
21                    *required in Section 4.040 and 4.050 of the Morrow County Zoning Ordinance.*  
22                    *Safe and convenient pedestrian access to off-street parking areas also shall be*  
23                    *provided as applicable.*

24  
25 The applicant stated that the O&M building and substations within Morrow County would be  
26 designed and constructed with adequate off-street parking and that vehicles associated with  
27 facility construction and operation would not be permitted to park within public rights-of way.  
28 Based on the applicant’s representations and subject to compliance with Land Use Condition 3, the  
29 Council finds that the applicant has demonstrated that the design of the facility would comply  
30 with MCZO 4.165(D)(6) review criteria.

31  
32                   (7) *County transportation facilities shall be located, designed and constructed*  
33                    *in accordance with the design and access standards in the Morrow County*  
34                    *Transportation System Plan.*

35  
36 The applicant stated that improvements to public roads, whether necessary at the site access  
37 points or elsewhere on public roads to permit passage of construction or maintenance  
38 equipment and materials within Morrow County, would be designed and constructed  
39 consistent with Morrow County development standards. In comments on the ASC, Morrow  
40 County requested conditions related to transportation improvements and compliance with  
41 the county’s design and access standards. The applicant did not object to the requested  
42 conditions. The Council adopts the following condition with administrative changes included  
43 in the proposed order specifying that the requirements apply to roads within Morrow County:  
44

1           **Land Use Condition 4:** During design and construction of the facility, the certificate  
2 holder shall:

- 3           a. Obtain an access permit for changes in access on Morrow County roads; and  
4           b. Improve or develop private access roads impacting intersections with Morrow  
5           County roads in compliance with Morrow County access standards.  
6

7 The Council finds that subject to compliance with Land Use Condition 4, the design of the  
8 facility would comply with MCZO 4.165(D)(7) review criteria.  
9

10                   *(8) Site planning, including the siting of structures, roadways and utility*  
11                   *easements, shall provide, wherever practicable, for the protection of trees*  
12                   *eight inch caliper or greater measured four feet from ground level, with the*  
13                   *exception of noxious or invasive species, such as Russian olive trees.*  
14

15 The applicant explained that construction and operation of the facility would not be  
16 expected to result in impacts to trees eight inch caliper or greater measured four feet  
17 from ground level. Based on the applicant's statement of no anticipated impact, the  
18 Council finds that the applicant has demonstrated that the facility would comply with  
19 MCZO 4.165(D)(8) review criteria.  
20

21                   *(9) Development shall comply with Section 3.200 Significant Resources Overlay*  
22                   *Zone or 3.300 Historic Buildings and Sites protecting inventoried significant*  
23                   *natural and historic resources.*  
24

25 The MCCP Natural Resources Element, updated on October 1, 2013, identifies wetlands, wildlife  
26 habitat, groundwater resources, natural areas, historic resources, open space and scenic views  
27 and sites as significant natural resources within the County. As explained in ASC Exhibits K, P, Q  
28 and J, the facility has been designed to minimize impacts to wildlife habitat and avoid all impacts  
29 to wetlands. While facility construction would result in substantial, temporary water use, the  
30 applicant explained that it would obtain water from permitted municipal sources and would not  
31 exceed the combined available water rights for those sources. Facility operation would result in  
32 minimal water use.  
33

34 The facility would be located entirely on private land, none of which is designated as open  
35 space. As the applicant explained in ASC Exhibits R, L, S, and T and K, there are no important  
36 scenic resources or protected areas within designated scenic view or sites within the site  
37 boundary or that would be impacted by the facility. The applicant explained that while no  
38 significant historical resources were identified within the analysis area, measures would be  
39 implemented during construction and operation of the facility to protect all cultural and historic  
40 resources in Morrow County eligible or potentially eligible for regulatory protection consistent  
41 with the recommendations of the Confederated Tribes of the Umatilla Indian Reservations  
42 (CTUIR). Therefore, the Council finds that the applicant has demonstrated that the facility would  
43 comply with the MCZO 4.165(D)(9) review criteria.  
44

1                   (10) *The applicant shall determine if compliance is required with Oregon Water*  
2                   *Resources Department water quantity and/or Oregon Department of*  
3                   *Environmental Quality water quality designations.*  
4

5 As explained in ASC Exhibit O and discussed in Section IV.M, *Public Services* of this final  
6 order, facility construction would result in substantial, temporary water use for concrete  
7 mixing, road construction and dust control. Water used during construction would be  
8 obtained from existing municipal water providers and would not be in excess of their service  
9 capacity and available water rights.<sup>116</sup>  
10

11 As discussed in Section IV.D, *Soil Protection* of this final order and as required by Soil  
12 Protection Condition 1, the applicant would be required to obtain a National Pollutant  
13 Discharge Elimination System (NPDES) 1200-C permit from DEQ, which would protect water  
14 quality through requirements to implement best management practices for the  
15 management of onsite sediment and stormwater discharge. ASC Exhibit E, Attachment E-1  
16 provides a copy of DEQ's letter to the department confirming receipt of the applicant's  
17 NPDES 1200-C permit application. The applicant identified a personal communication with  
18 DEQ staff, and stated that during that communication DEQ confirmed that the facility  
19 would not be expected to result in adverse impacts to existing wells within the site  
20 boundary.<sup>117</sup>  
21

22 Based on concurrence received from public providers of water, and compliance requirements imposed  
23 through the NPDES 1200-C permit, the Council finds that the applicant has demonstrated that  
24 compliance with MCZO 4.165(D)(1) would be required for the facility.  
25

26                   (11) *The applicant shall determine if previous Code Enforcement violations have*  
27                   *been cleared as applicable.*  
28

29 The applicant stated that there are no previous Code Enforcement violations for the  
30 facility because the facility has not yet been constructed. Therefore, the applicant  
31 concludes, and the Council concurs, that the review criteria of MCZO 4.165(D)(11)  
32 would not apply to the facility.  
33

34                   (12) *The applicant shall determine the method of disposal for solid*  
35                   *waste, with staff providing information to the applicant about*  
36                   *recycling opportunities.*  
37

38 As explained in ASC Exhibit K, construction waste would be collected, consolidated, recycled  
39 to the extent practicable, and then transferred and disposed of at Finley Butte landfill. As  
40 presented in ASC Exhibit V, facility construction would result in approximately 9,000 cubic  
41 yards of solid waste, which would not exceed the capacity of Finley Butte Landfill. Further,

---

<sup>116</sup> ASC, Exhibit O, Attachments O-1 through O-4.

<sup>117</sup> ASC, Exhibit K, p. 14.

1 facility operation would not result in substantial waste generation. In a comment letter,  
2 Morrow County, on behalf of Morrow County Court, requested that a condition be imposed  
3 by the Council in the site certificate to support Morrow County's waste shed reporting goals.  
4 Public Services Condition 5 would ensure compliance with MCZO Section 4.165(D)(12)  
5 criteria; therefore, the Council finds that, subject to compliance with that condition, the  
6 applicant has demonstrated that the facility would comply with MCZO Section 4.165(D)(12)  
7 review criteria.

8  
9 *(13) The applicant shall obtain the necessary access permit through the Public*  
10 *Works Department as required by Morrow County Resolution R-29-2000.*

11  
12 The applicant stated that it would obtain necessary permits prior to accessing public rights-of-  
13 way. Moreover, Land Use Condition 4 would ensure right-of-way permits are obtained prior to  
14 construction. Based on compliance with the requirements of Land Use Condition 4, the Council  
15 finds that the applicant has demonstrated that the facility would comply with MCZO  
16 4.165(D)(13) review criteria.

17  
18 Based on the applicant's analysis and subject to compliance with the requirements of Land Use  
19 Condition 4, the Council finds that the applicant has demonstrated that the facility would  
20 comply with all applicable MCZO 4.165(D) review criteria.

21  
22 *E. Submittal Requirements. A site plan shall be submitted including all of the following*  
23 *information except for specific items determined at the pre-application review not to be*  
24 *applicable. All site plans shall have dimensions clearly indicated. An applicant may*  
25 *provide the information on separate sheets, if necessary or desirable for clarity.*

26  
27 The County's site plan submittal requirements are not substantive criteria applicable to this ASC  
28 review. Nonetheless, the applicant is required to and has represented that it would submit site  
29 plans with the required information at the time of Site Plan Review.

30  
31 Article 6. Conditional Uses

32  
33 *SECTION 6.015. REQUIREMENTS UNDER A STATE ENERGY FACILITY SITE CERTIFICATE.*

34  
35 *If a holder of a Site Certificate issued by the Oregon Energy Facility Siting Council requests a*  
36 *conditional use permit for an energy facility as outlined under ORS 469.401(3) and pays the*  
37 *requisite fee, the Planning Director shall issue such conditional use permit. The conditional*  
38 *use permit shall incorporate only the standards and conditions in Morrow County's land use*  
39 *and other ordinances as contained in the site certificate. Issuance of the Conditional Use*  
40 *Permit shall be done promptly, not taking more than four weeks once it has been*  
41 *determined that a valid Site Certificate has been issued, the applicant has submitted a*  
42 *complete application and the fee has been received.*

1 The applicant has requested a site certificate issued by the Council. The applicant has  
2 represented that upon issuance of the requested site certificate, it would request issuance of a  
3 conditional use permit for the wind power generation facility as a commercial utility facility  
4 pursuant to Section 6.015.

5  
6 ORS 469.401(3) requires the county to issue the conditional use permit subject only to the  
7 conditions set forth in the site certificate. Morrow County specifically requested a condition of  
8 approval requiring the applicant to submit the necessary documents and pay the requisite fee  
9 to obtain the necessary conditional use permit.<sup>118</sup> The applicant does not object to such a  
10 condition. The Council adopts the following condition:

11  
12 **Land Use Condition 5:** Before beginning construction, the certificate holder shall pay the  
13 requisite fee and obtain a Conditional Use Permit as required under Morrow County  
14 Zoning Ordinance Article 6 Section 6.015.

15  
16 The County further noted that it would not issue the local conditional use permit without the  
17 applicant being able to produce an approval for the necessary associated transmission line.<sup>119</sup>  
18 As discussed above, the applicant did not propose a transmission line to connect the facility to  
19 the electrical grid. Instead, the applicant represented in ASC Exhibit B that the facility would be  
20 connected to the grid via an overhead, 230 kV interconnection transmission line that would be  
21 permitted, constructed, and owned by either UEC or UEC in partnership with the CBEC. The  
22 applicant indicated that the interconnection lines would be operated by BPA. The  
23 interconnection transmission line is not evaluated as a related or supporting facility proposed  
24 by the applicant for purposes of this site certificate application. However, the interconnection  
25 line has been evaluated as a third party permit under the Council's Organizational Expertise  
26 standard. Organizational Expertise Condition 8 would require the applicant to provide evidence  
27 to the department that the relevant third party has obtained all necessary approvals and  
28 permits for an interconnection transmission line and that the applicant has a contract with the  
29 third party for use of the transmission line before beginning construction on any phase of the  
30 facility. It appears that Organizational Expertise Condition 8 satisfies Morrow County's concern.

31  
32 **SECTION 6.020 GENERAL CRITERIA.**

33  
34 *In judging whether or not a conditional use proposal shall be approved or denied, the*  
35 *Commission shall weigh the proposal's appropriateness and desirability, or the public*  
36 *convenience or necessity to be served against any adverse conditions that would result from*  
37 *authorizing the particular development at the location proposed and, to approve such use,*  
38 *shall find that the following criteria are either met or can be met by observance of*  
39 *conditions.*

40  

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<sup>118</sup> WRWAPPDoc10, Morrow County Comment, February 9, 2015.

<sup>119</sup> Id.

- 1           A. *The proposal will be consistent with the Comprehensive Plan and the objectives of*  
2           *the Zoning Ordinance and other applicable policies and regulations of the County.*  
3  
4           B. *If located within the Urban Growth Boundary of a city, that said city has had an*  
5           *opportunity to review and comment on the subject proposal.*  
6  
7           C. *The proposal will not exceed carrying capacities of natural resources or public*  
8           *facilities.*  
9

10 MCZO Section 6.020(A) requires that conditional use permit applications establish compliance  
11 with the MCCP, MCZO and other applicable policies and regulations of the County. Compliance  
12 with the provisions of the MCCP identified by Morrow County as applicable substantive criteria  
13 is discussed below. Compliance with zoning ordinance and other county policies and  
14 regulations is discussed throughout this section. Therefore this criterion is satisfied upon a  
15 determination that the facility satisfies the identified applicable substantive criteria.  
16

17 Subsection B applies only to conditional use permit applications within an urban growth  
18 boundary. The facility would not be located within the urban growth boundary and therefore  
19 this criterion does not apply.  
20

21 Subsection C requires that the facility not exceed carrying capacities of natural resources or  
22 public facilities. MCZO Section 1.030 defines “carrying capacity” as the “level of uses that can be  
23 accommodated and continued without irreversible impairment of natural resources  
24 productivity, the ecosystem, and the quality of air, land and water resources.” The applicant  
25 addressed impacts on Morrow County public facilities in ASC Exhibit U. Those impacts are  
26 evaluated and addressed in Section IV.M, *Public Services* of this final order. As discussed in that  
27 section, the Council finds that, subject to compliance with the recommended conditions, the  
28 facility would not be likely to result in a significant adverse impact to the ability of service  
29 providers to provide the necessary services. The evaluation in Section IV.M, *Public Services* also  
30 supports a finding that, with the imposition of the conditions, the facility would not exceed the  
31 carrying capacities of public facilities.  
32

33 The applicant addresses facility impacts to soils, surface or groundwater resources, and  
34 protected plant and animal species and their habitats in Exhibits I, J, O, P and Q. The Council has  
35 evaluated those impacts in Sections IV.D, *Soil Protection*, IV.H, *Fish and Wildlife Habitat*, IV.I,  
36 *Threatened and Endangered Species*, IV.S, *Removal-Fill Law*, and IV.T, *Water Rights* of this final  
37 order. As discussed in the relevant sections, the Council finds that, subject to compliance with  
38 the conditions, those natural resource Council standards have been satisfied. The identified  
39 sections also support a finding that, with the imposition of the conditions, the facility would not

1 exceed the carrying capacities of Morrow County natural resources.<sup>120</sup> Therefore, the Council  
2 finds that with conditions the facility would comply with MCZO Sections 6.020(A), (B) and (C).

3  
4 *Section 6.025 Resource Zone Standards for Approval*

5  
6 *A. In the Exclusive Farm Use zone a conditional use may be approved only when the County*  
7 *finds that the use will not:*

- 8  
9 *1. Force a significant change in accepted farm or forest practices on surrounding*  
10 *lands devoted to farm or forest use; or*  
11  
12 *2. Significantly increase the cost of accepted farm or forest practices on surrounding*  
13 *lands devoted to farm or forest use.*

14  
15 MCZO Section 6.025(A)(1) and (2) establish approval standards for all conditional uses within  
16 EFU zoned land. The applicant confirmed that there is no forest use or forest practices within  
17 the land use analysis area. Therefore, the applicant identified and addressed accepted farm  
18 practices and surrounding lands devoted to farm use.<sup>121</sup>

19  
20 In the revised Exhibit K, the applicant identified and described surrounding lands devoted to  
21 farm use. The applicant first generally notes that lands devoted to farm use in Morrow County  
22 are used primarily for cultivation of wheat and grazing of livestock, and related accessory uses.  
23 However, as explained by the applicant, consistent with ORS 215.203, lands devoted to farm  
24 use include “wasteland” such as the grasslands and other areas that are not economical to  
25 cultivate, because they are interspersed with cultivated lands and are also within the EFU zone.  
26

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<sup>120</sup> Morrow County provided a comment on the pASC indicating that it generally agreed with the applicant that the natural resource and public facility issues are addressed throughout the application and that the related general criteria can be met. WRWAPPDoc10, Morrow County Comment, February 9, 2015.

<sup>121</sup> The Morrow County conditional use standards are taken directly from ORS 215.296. Pursuant to ORS 215.203(2)(a) “farm use” means “the current employment of land for the primary purpose of obtaining a profit in money by raising, harvesting and selling crops or the feeding, breeding, management and sale of, or the produce of, livestock, poultry, fur-bearing animals or honeybees or for dairying and the sale of dairy products or any other agricultural or horticultural use or animal husbandry or any combination thereof. “Farm use” includes the preparation, storage and disposal by marketing or otherwise of the products or by-products raised on such land for human or animal use. “Farm use” also includes the current employment of land for the primary purpose of obtaining a profit in money by stabling or training equines including but not limited to providing riding lessons, training clinics and schooling shows. “Farm use” also includes the propagation, cultivation, maintenance and harvesting of aquatic, bird and animal species that are under the jurisdiction of the State Fish and Wildlife Commission, to the extent allowed by the rules adopted by the commission. “Farm use” includes the on-site construction and maintenance of equipment and facilities used for the activities described in this subsection. “Farm use” does not include the use of land subject to the provisions of ORS chapter 321, except land used exclusively for growing cultured Christmas trees as defined in subsection (3) of this section or land described in ORS 321.267 (3) or 321.824 (3).”

1 Within the 11,396 acre portion of the site boundary in Morrow County, approximately 10,815  
2 acres are considered devoted to farm use under ORS 215.203; of this, approximately 6,462  
3 acres are currently used for dryland winter wheat farming or irrigated agriculture, and the  
4 remainder is nonnative and native grasslands. Through Figures K-9 and K-10, the applicant  
5 provided a detailed depiction of farm and other land uses within the analysis area and depicted  
6 land cover classifications. The applicant also provided acreages and percentages of the land  
7 uses in the analysis area and in the site boundary in Table 1 of Attachment K-1. The table  
8 includes the acreages and percentage of both irrigated and non-irrigated agriculture, habitat  
9 lands,<sup>122</sup> and developed lands both within the analysis area and within the site boundary, and  
10 provides both the total acreages and the acreages for each county. Within Morrow County,  
11 non-irrigated agriculture comprises 29,974 acres of the analysis area and 7,725.5 acres of the  
12 site boundary; irrigated agriculture comprises 714.9 acres of the analysis area and 54.7 acres of  
13 the site boundary; and habitat land comprises 19,363.5 acres of the analysis area and 3,524  
14 acres of the site boundary.<sup>123</sup>

15  
16 As the applicant explained in Attachment K-1 and depicted in the figures, the majority of the  
17 land within the analysis area is devoted to dryland winter wheat farming, predominantly  
18 producing soft white winter wheat, or irrigated agriculture.<sup>124</sup> The applicant also explained that  
19 some cattle grazing occurs in limited areas in and around the analysis area. The remainder of  
20 the lands devoted to farm use appear to be grasslands that would satisfy the definition of  
21 wastelands.

22  
23 The applicant also provided a detailed description of the accepted farming practices that occur  
24 on the surrounding lands devoted to farm use in Attachment K-1. Specifically, Attachment K-1  
25 describes the planting cycles for winter wheat, the field preparation techniques, common  
26 farming equipment, aerial spraying by helicopter and/or airplane, irrigation techniques in the  
27 small areas of irrigated agriculture, and access issues.<sup>125</sup> The applicant asserted that the facility  
28 would not force a significant change in accepted farm practices or significantly increase the cost  
29 of farm practices. To support that position, the applicant provided the following list of  
30 reasons:<sup>126</sup>

- 31  
32 • Facility components and temporary construction laydown and staging areas would be  
33 sited to minimize disturbance to farming operations.

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<sup>122</sup> The applicant explained that “wasteland” which is land devoted to farm use, was included in the habitat category.

<sup>123</sup> As explained in Exhibit K-1, Table 1, the analysis area calculations exclude the site boundary.

<sup>124</sup> ASC, Exhibit K, Attachment K-1 Supplemental Land Use Information, pp. 1 and 8.

<sup>125</sup> Id. The applicant also described the limitations on accepted farm practices within the intraconnection transmission line right-of-way. Because the department has recommended that the Council evaluate the intraconnection transmission line as a utility facility necessary for public service, a use allowed in the EFU zone subject only to ORS 215.275 rather than a conditional use as part of the commercial generation facility, the impacts of the transmission line on accepted farming practices is not relevant to the finding of compliance for purposes of MCZO Section 6.025(A). The Council concurs with the department. However, as addressed below, the information is relevant for purposes of the intraconnection transmission line’s compliance with ORS 215.275.

<sup>126</sup> ASC, Exhibit K, pp. 9-10.



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- Land permanently lost to farm use due to siting of permanent Project improvements is a de minimis percentage of the total farm use land in Morrow County; therefore the inability to use the land for farm purposes is not significant.
- Project Site Access Roads and other facilities would be constructed and maintained by Wheatridge, such that the cost burden for maintenance does not fall upon the farm or ranch owners.
- Private access roads improved or developed for the Project would benefit agricultural users of the land through improved access to farm fields and resulting lower fuel costs.
- Wheatridge will implement a weed control plan consistent with the Morrow County Weed Control Ordinance, which will reduce the risk of weed infestation in cultivated land and the associated cost to the farmer for weed control.
- Wheatridge will record a covenant not to sue against its Project leasehold interests with regard to generally accepted farming practices on adjacent farmland.
- Construction and operation of the Project could cause changes in routes of access to fields and changes in the pattern of cultivation, seeding, fertilizing and harvesting near the turbines and Site Access Roads. To minimize this, Wheatridge, in consultation with the landowners, has laid out the facility components to minimize obstacles to farming in cultivated fields (facility components around which the farmer would have to plow, plant and harvest).
- Wheatridge will consult with area landowners during construction and operation of the facility to determine further measures to reduce or avoid any adverse impacts to farm practices on surrounding lands and to avoid any increase in farming costs.
- Construction of the Project could adversely affect soil quality by erosion or compaction. Some farmland would be temporarily disturbed and unavailable for farming during construction. To avoid or reduce adverse impacts to soil quality, Wheatridge will implement dust control and erosion-control measures during construction and operation of the facility (see Exhibit I). To the extent practicable, Wheatridge proposes to reduce impact to soils by using areas that are already disturbed and limiting the area of new disturbance.
- Construction vehicles will use previously disturbed areas including existing roadways and tracks. When practical, temporary Construction Yards and laydown areas will be located within the future footprint of permanent structures. The width of new permanent roadways will be the minimum consistent with safe use. Underground communication and electrical lines will be buried within the area disturbed by

1 temporary road widening to the extent practicable, and turbine foundations will abut  
2 roadways as closely as possible. Upon completion of construction, Wheatridge will  
3 restore temporarily disturbed areas to their pre- construction condition.  
4

5 On the record of the public hearing, W. & L. Seitz and T. Lindsay (commenters) raised issues  
6 regarding the proposed facility’s potential impacts to accepted farming practices, specifically  
7 aerial application and irrigation.<sup>127</sup> These commenters raised concern that the “project” does  
8 not meet statutory requirements and cited ORS 215.275(5) and ORS 215.283 and stated that  
9 the proposed facility would significantly impact the ability and the cost of aerial spraying.<sup>128</sup>  
10

11 On the record of the public hearing, Mr. T. Lindsay explained that the proposed facility would  
12 be adjacent to nearly every acre of his 6,000 acre agricultural property and that aerial  
13 application is the preferred farming practice of his farm located near Sandhollow Canyon. He  
14 expressed a concern that the proposed facility would significantly impact and increase the cost  
15 of aerial spraying because sprayers would be forced to go over and around the project area,  
16 change flight patterns, or decline service in the area. He stated that the change in aerial  
17 applicators flight patterns would increase fuel costs, man hours and equipment needs. He  
18 further commented that the proposed facility would impact farming practices by limiting the  
19 available days for aerial application based on wind direction. Mr. T. Lindsay also expressed a  
20 concern related to the proposed facility’s impact on irrigation, as discussed further below.  
21

22 On the record of the public hearing, Mr. Seitz opposed obstructions associated with the  
23 proposed facility that would cause loss of life as well as loss of livelihood. Mr. Seitz described  
24 that flight patterns for application to fields adjacent to the proposed facility would have to be  
25 altered resulting in more time spent out of the field, increasing fuel costs, which he explained  
26 was his single largest expense as an applicator. Mr. Seitz expressed that he would be forced to  
27 increase his rates to account for increased fuel costs from changes in flight patterns which  
28 could possibly make his business no longer profitable.  
29

30 The department noted that ORS 215.275, as cited by both W. & L. Seitz and T. Lindsay, applies  
31 to the proposed intraconnection transmission line as a utility facility necessary for public  
32 service. The intraconnection line’s compliance with ORS 215.275 is addressed further below in  
33 this section. ORS 215.283, as cited by commenters, does not apply directly to the proposed  
34 facility. Nonetheless, the proposed wind energy facility has been identified as a type of  
35 commercial utility facility for the purpose of generating power for sale by public use, and is  
36 considered a conditional use under the acknowledged MCZO. The Morrow County conditional

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<sup>127</sup> WRWAPPDoc86 DPO Public Comment\_W. Seitz 2016-06-03; WRWAPPDoc115 DPO Public Comment\_T. Lindsay 2016-06-06.

<sup>128</sup> Commenters also cite ORS 215.213 and 215.203; however, ORS 215.213 applies to counties that adopted marginal lands system prior to 1993 and would not apply in Morrow or Umatilla counties. Moreover, ORS 215.203 defines farm uses for purposes of establishing exclusive farm use zones within county zoning ordinances. While the definition of farm use pursuant to ORS 215.203 is applicable to MCZO 6.025, it does not apply directly to the proposed facility nor would it be considered a criterion for which the facility must demonstrate compliance.

1 use standards required under MCZO 6.025(A)(1) and (2) are identical to the conditional use  
2 standards included in ORS 215.296.<sup>129</sup> The MCZO 6.025 standards are addressed in ASC Exhibit  
3 K and are evaluated above.

4  
5 In ASC Exhibit K, the applicant explained that the presence of wind turbines can increase both  
6 the difficulty and the risk of aerial spraying in the vicinity of a wind farm. The applicant noted  
7 that some pilots will not fly in wind farms, while others continue to work in and around them.  
8 ASC Exhibit K, Attachment K-3, includes a letter from Gar Aviation expressing that the presence  
9 of wind facilities has not impacted their ability to provide aerial application services or resulted  
10 in a change in its pricing.

11  
12 The applicant further explained that wind turbines represent a marginal change in the  
13 flightpath because spray pilots commonly fly at very low altitudes, navigating around terrain,  
14 trees, utility poles, transmission lines, farm structures and other obstacles. The applicant  
15 asserted that despite some complaints, aerial spraying continues to occur in areas with many  
16 wind farms, and no turbine-related accidents or fatalities have been reported. ASK Exhibit K  
17 also evaluates the potential impacts of the proposed facility on aerial applicators ability to turn  
18 at end of run flight paths. The applicant provided the following analysis to demonstrate that the  
19 proposed turbines, intraconnection transmission line and met towers would not pose a  
20 significant change to aerial spraying practices.

- 21  
22 1. Wind turbines and transmission lines present additional obstacles for agricultural pilots  
23 to navigate around. One of the common problems associated with wind turbines and  
24 transmission lines is a difficulty in establishing a straight line spray run across fields,  
25 which is important to providing good spray coverage. A wind turbine or transmission line  
26 may directly prevent aerial spraying in some areas, most notably within the transmission  
27 right- of-way. Wind turbines and transmission lines may also indirectly impede aerial  
28 application of chemicals to other portions of the field depending on orientation, wind  
29 direction, and other factors.

30  
31 Spray pilots commonly fly at very low altitudes, navigating around terrain, trees, utility  
32 poles, transmission lines, farm structures and other obstacles. New wind turbines  
33 represent a marginal increase in the level of difficulty for pilots. Although wind farms  
34 clearly have some effect on the ability to conduct aerial agricultural spraying, the  
35 magnitude of this problem does not rise to the level of a significant change in accepted  
36 practices. Despite some complaints, aerial spraying continues to occur in areas with  
37 many wind farms, and no turbine-related accidents or fatalities have been reported.

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<sup>129</sup> ORS 215.296(1) requires that the local governing body or its designate (in this instance the Council) may approve a use permitted under ORS 215.283(2) only when it determines that the use: “(a) Will not force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use; and (b) Will not significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use.”

1        2. Agricultural aircraft require a turn diameter of up to one-half mile at the end of each  
2        spray run. Turbine strings are spaced approximately one-half to 1 mile apart, and  
3        turbines within the strings are spaced 700 to 1,000 feet apart. This spacing is necessary  
4        to minimize turbulence and wake loss between and within turbine strings, and leaves  
5        ample space for pilots to navigate between and around them. Therefore, the turbines  
6        do not pose a significant change to aerial spraying practices.

7  
8        3. Some agricultural pilots have pointed to increased air turbulence as a serious concern for  
9        aerial spraying; however, turbulence related to wind turbines appears to be less of an  
10       issue than the obstacle to flight presented by the turbine itself. Wind turbines are known  
11       to create turbulence as wind passes through the rotor; the resulting wake is known to  
12       extend from a minimum of 6 blade diameters downwind, to as far as 20 blade diameters  
13       downwind. The wake gradually expands downwind from the rotor as the turbulent air  
14       mixes with the ambient laminar flow. The magnitude of wake turbulence is directly  
15       related to wind and rotor speed; at very low wind speeds little wake turbulence is  
16       generated, while under strong wind conditions the wake turbulence can be significant.

17  
18       Spraying operations normally require calm or very light wind conditions – agricultural  
19       pilots generally must operate in wind conditions below 10 miles per hour (mph; 4.4 m/s,  
20       16 kph, or 8.7 knots(kts)). Many common pesticides include labeling with  
21       recommendations on minimum and maximum wind speeds, and most should be applied  
22       when wind speeds are less than 10 mph to prevent spray drift. At this wind speed,  
23       modern wind turbine generators turn very slowly, with minimal wake turbulence. The  
24       typical cut-in speed of turbines appropriate for the Project is approximately 6.7 miles per  
25       hour (10.8 khp, 3.0 mps, or 5.8 kts), and they are designed to operate at maximum  
26       efficiency with an average wind speed at hub height of 16.8 mph (27 kph, 7.5 mps, or  
27       14.6 kts). At wind speeds of 10 mph or less, the proposed wind turbine generators are  
28       either not rotating or rotating minimally, and would generate very little wake  
29       turbulence. It is only when wind speeds rise above 10 mph that wake turbulence could  
30       become strong enough to potentially affect flight safety; however, at that wind speed  
31       aerial sprayers are not operating. Thus, the only times when a turbine will be rotating  
32       when aerial spraying will be occurring is when wind speeds are above 6.7 mph (typical  
33       cut-in speed) and below 10 mph (typical upper limit for aerial spraying applications); a  
34       very small portion of the wind regime.

35  
36       Spray pilots will also largely operate at altitudes below the level at which wake  
37       turbulence would be strongest. Both of the representative turbine models in the ASC  
38       have a ground-to- blade clearance of at least 25 meters (82 feet) or greater. Spray runs  
39       are conducted at very low levels, usually 8 to 12 feet off the ground to achieve good  
40       spray coverage and prevent spray drift; spray planes would therefore spend most of  
41       their operating time flying well below the level of the turbine wake. At such a low height,  
42       ground effects - the increased lift and decreased aerodynamic drag that an aircraft's  
43       wings generate when they are close to a fixed surface - would be far more noticeable  
44       than ambient or wind turbine turbulence. The ground effect generally occurs within a

1 height of about one-half the aircraft wingspan above the ground. Agricultural spraying  
2 aircraft generally have wingspans ranging from about 48 feet up to about 60 feet;  
3 ground effects would therefore occur within about 24 to 30 feet of ground level and  
4 produce a more noticeable level of turbulence for the pilot than the wake effect of  
5 nearby turbines.

6  
7 When the small overlap of wind speeds at which both turbines and aerial sprayers  
8 operate (between 6.7 and 10 mph) is considered in conjunction with the fact that aerial  
9 sprayers fly at an altitude significantly below the location of wind turbine turbulence  
10 (and in an area where the effects produced by the airplane itself are much greater), the  
11 wind project cannot be said to have a significant impact on accepted farm practices.

12  
13 4. The visibility of met towers is a concern for agricultural pilots. Met towers can be difficult  
14 to see if they are not painted, and many are below the 200 height threshold at which  
15 lighting and marking would be required by FAA. Some states (although not Oregon) have  
16 adopted regulations that require marking of all met towers regardless of height to  
17 address this very issue. In order to ensure that all temporary and permanent met towers  
18 are highly visible to pilots, Wheatridge will follow accepted practices for marking and/or  
19 lighting of all met towers, which will reduce any impacts below a significant level. These  
20 practices include:

- 21  
22 a. Painting the towers in alternating bands of white and red or aviation orange;  
23 b. Installing two sets of marker balls on the outermost guy lines;  
24 c. Installing guy line sleeves at the anchor points;  
25 d. Installing aviation lighting if recommended by FAA.

26  
27 ASC Exhibit K also addresses the facility's potential impacts to irrigation and identifies a few  
28 small areas of irrigated lands within the analysis area. The applicant explained that wind  
29 turbines would be sited no closer than approximately one-quarter mile from all pivot irrigated  
30 plots, and would be over 0.5-mile from all but a few plots. Based on proposed turbine siting,  
31 the applicant asserted that the facility would have no impact on irrigation systems within the  
32 analysis area. The applicant also explained that because the proposed facility would be  
33 located in the Columbia Basin Groundwater Limited Area, additional surface water rights from  
34 local streams would generally be unavailable for potential future irrigation expansion, further  
35 limiting the proposed facility from impacting this farming practice.

36  
37 In order to conclude that there would be a significant change or significant increase in cost to  
38 accepted farming practices within the surrounding area, the Council would have to first find  
39 that the proposed facility would cause a change in aerial applicators' flight patterns or  
40 availability of water for irrigation, and then find that the change in flight patterns and water  
41 availability attributable to the proposed facility would force a significant change in or  
42 significantly increase the cost of aerial spraying and irrigation. In this case, the department  
43 recommended that the Council find that the evidence on the record does not support either  
44 finding, and the Council concurs.

1  
2 First, the record does not include convincing evidence that the facility would cause flight  
3 patterns on fields adjacent to the facility to be significantly altered or significantly increase the  
4 cost of fuel for applicators. Commenters generally stated that obstructions associated with the  
5 proposed facility would cause flight patterns to be altered resulting in increased fuel costs, or  
6 declined service. However, commenters did not provide information to support or demonstrate  
7 how the location of the proposed facility would impact existing flight patterns, or information  
8 related to existing or forecasted fuel costs to determine the significance of the stated impact.  
9 The record also does not include convincing evidence that the proposed facility would decrease  
10 water availability for irrigation resulting in a significant increase in irrigation and water cost. T.  
11 Lindsay generally stated that studies show that turbines increase ground level temperatures  
12 and would negatively impact crops and ground water. However, there were no supporting  
13 studies or references provided to validate this claim.

14  
15 For these reasons, the Council finds that the facility would not force a significant change in  
16 accepted farming practices, including aerial spraying or irrigation and that the facility would not  
17 significantly increase the cost of aerial spraying or irrigation.

18  
19 The Council considers several of the actions described above to be binding commitments by the  
20 applicant. Therefore, pursuant to OAR 345-027-0020(10) and to satisfy the applicable  
21 standards, the Councils adopt the following conditions, as amended to clarify timing:<sup>130</sup>

22  
23 **Land Use Condition 6:** Before beginning construction, the certificate holder shall  
24 prepare a Weed Control Plan that is consistent with Morrow and Umatilla County weed  
25 control requirements to be approved by the department. The department shall consult  
26 with Morrow and Umatilla counties and ODFW. The final plan must be submitted to the  
27 department no less than 30 days prior to the beginning of construction. The certificate  
28 holder shall implement the requirements of the approved plan during all phases of  
29 construction and operation of the facility.

30  
31 **Land Use Condition 7:** Before beginning construction, the certificate holder shall record  
32 in the real property records of Morrow County a Covenant Not to Sue with regard to  
33 generally accepted farming practices on adjacent farmland.

34  
35 **Land Use Condition 8:** During construction, the certificate holder shall comply with the  
36 following requirements:  
37 a. Construction vehicles shall use previously disturbed areas including existing  
38 roadways and tracks.  
39 b. Temporary construction yards and laydown areas shall be located within the future  
40 footprint of permanent structures to the extent practicable.

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<sup>130</sup> In the proposed order, the department recommends the Council adopt amendments to Land Use Conditions 8 and 9 to clarify timing of implementation of each condition.

- 1 c. New, permanent roadways will be the minimum width allowed while still being  
2 consistent with safe use and satisfying county road and safety standards.  
3 d. Underground communication and electrical lines will be buried within the area  
4 disturbed by temporary road widening to the extent practicable.<sup>131</sup>  
5

6 **Land Use Condition 9:** During design and construction, the certificate holder shall  
7 implement the following actions on all meteorological towers approved through the site  
8 certificate:

- 9 a. Paint the towers in alternating bands of white and red or aviation orange; and  
10 b. Install aviation lighting as recommended by the Federal Aviation Administration.  
11

12 **Land Use Condition 10:** During operation of the facility, the certificate holder shall  
13 restore areas that are temporarily disturbed during facility maintenance or repair  
14 activities using the same methods and monitoring procedures described in the final  
15 Revegetation Plan referenced in Fish and Wildlife Condition 11.  
16

17 **Land Use Condition 11:** The certificate holder shall design and construct the facility  
18 using the minimum land area necessary for safe construction and operation. The  
19 certificate holder shall locate access roads and temporary construction laydown and  
20 staging areas to minimize disturbance of farming practices and, wherever feasible, shall  
21 place turbines and transmission interconnection lines along the margins of cultivated  
22 areas to reduce the potential for conflict with farm operations. Where possible,  
23 underground communication and electrical lines shall be buried within the area  
24 disturbed by temporary road widening.  
25

26 The applicant asserted in ASC Exhibit K that it would consult with area landowners during  
27 construction and operation of the facility to determine further measures to reduce or avoid any  
28 adverse impacts to farm practices on surrounding lands and to avoid any increase in farming  
29 costs.<sup>132</sup> The Council considers this as a binding commitment by the applicant. Therefore,  
30 pursuant to OAR 345-027-0020(10), the Council adopts the following condition:  
31

32 **Land Use Condition 12:** Prior to beginning construction, the certificate holder shall  
33 consult with surrounding landowners and lessees and shall consider proposed measures  
34 to reduce or avoid any adverse impacts to farm practices on surrounding lands and to  
35 avoid any increase in farming costs during construction and operation of the facility.  
36 Prior to beginning construction, the certificate holder shall provide evidence of this  
37 consultation to the department, Morrow County, and Umatilla County.  
38

---

<sup>131</sup> The department believes, and the Council concurs, that this condition satisfies Morrow County's request for a condition that would require the installation of underground components in locations so as not to impact future farming operations. WRWAPPDoc42, SAG Comment Morrow County, 08-31- 2015, p. 2.

<sup>132</sup> ASC, Exhibit K, pp. 9-10.

1 Scenic Resources Condition 2 requires the certificate holder to water access roads and other  
2 areas of ground disturbance during construction, as needed, to avoid the generation of  
3 airborne dust, and Soil Protection Condition 1 requires the applicant to implement all  
4 provisions of the NPDES 1200-C permit and the final ESCP, as approved by DEQ. Soil Protection  
5 Condition 4 requires that the final revegetation plan include a program to protect and restore  
6 agricultural soils temporarily disturbed during facility construction.

7  
8 Based upon the information provided by the applicant in Exhibit K and Attachment K-1 related  
9 to impacts on farm uses and farm practices and the analysis provided above, and subject to  
10 compliance with the conditions, the Councils find that facility would satisfy the conditional use  
11 standards at MCZO Section 6.025(A).

12  
13 *SECTION 6.030. GENERAL CONDITIONS*

14  
15 *In addition to the standards and conditions set forth in a specific zone, this article, and other*  
16 *applicable regulations; in permitting a new conditional use or the alteration of an existing*  
17 *conditional use, the Commission may impose conditions which it finds necessary to avoid a*  
18 *detrimental impact and to otherwise protect the best interests of the surrounding area or*  
19 *the County as a whole.*

20  
21 The applicant correctly notes that pursuant to ORS 469.401(3), Morrow County is bound by a  
22 site certificate issued by the Council and must issue a conditional use permit subject only to the  
23 conditions included in the site certificate. However, in determining whether the facility satisfies  
24 the applicable substantive criteria, the Council has the same authority that the Morrow County  
25 decision making body would have to impose conditions the Council finds necessary under the  
26 Morrow County General Conditions provisions. In its comments on the pASC, Morrow County  
27 specifically requested that the applicant address the General Conditions identified in Section  
28 6.030, but did not recommend any additional conditions for purposes of compliance with  
29 Section 6.030.<sup>133</sup>

30  
31 *These conditions may include the following:*

32  
33 *A. Limiting the manner in which the use is conducted including restricting the time an*  
34 *activity may take place and restraints to minimize such environmental effects as noise,*  
35 *vibration, air pollution, glare and odor.*

36  
37 The applicant stated that the facility has been designed to minimize the identified  
38 environmental effects. Specifically, the applicant explained that the facility would not cause air  
39 pollution or odors, and does not include equipment that would cause vibration.

40  

---

<sup>133</sup> WRWAPPDoc10, Morrow County Comment, February 9, 2015. Based upon the subsequent comments from Morrow County on the ASC, the department understands that the County is satisfied with the applicant's responses to the Section 6.030 condition provisions.



1 The applicant addressed state noise standards in ASC Exhibit X. As explained in Exhibit X, the  
2 applicant has committed to operating the facility in a noise reduction operation mode. In  
3 Section IV.R, *Noise Control Regulations* of this final order, the Council evaluates the facility's  
4 compliance with the state noise standards and adopts both pre-construction and operational  
5 conditions to make sure the facility complies with the noise standards. The Council does not  
6 find that additional conditions to reduce noise impacts are required under the Morrow County  
7 conditional use authority.

8  
9 The applicant stated that the facility would have minimal outdoor lighting at the O&M building  
10 and substations, and that where outdoor lighting is necessary it would be shielded and aimed  
11 downward and inward to prevent offsite glare. Additionally, all outdoor lighting would use  
12 motion sensors and/or timers to ensure that lights are only on when needed. Finally the  
13 applicant stated that red flashing lights must be installed atop select turbines per FAA marking  
14 requirements, but confirmed that no other turbine lighting would be used.<sup>134</sup> Lighting impacts  
15 on visual resources are evaluated in Section IV.J, *Scenic Resources* of this final order, and the  
16 Council has adopted a number of conditions to reduce visual impacts and glare on surrounding  
17 properties. Specifically, Scenic Resources Condition 1 relates to lighting at the O&M building  
18 and Scenic Resources Condition 2 requires the turbines to be painted with low reflectivity  
19 coating.

20  
21 Based on the analysis provided above, and taking into consideration conditions in the identified  
22 sections of this final order, the Council does not impose additional conditions under this  
23 provision.

24  
25 *B. Establishing a special yard or other open space or lot area or dimension.*

26  
27 The applicant stated that the facility would comply with several special setbacks for the wind  
28 turbines to avoid impacts to public roads and adjacent non-participating properties, and would  
29 adhere to existing County setback requirements for the O&M building and substations. The  
30 Council imposes setback requirements by adopting Land Use Conditions 1 and 2, as requested  
31 by Morrow County. The applicant has not requested a subdivision of land so lot area and  
32 dimensional standards are not applicable. Finally, the facility would be constructed entirely on  
33 private land, none of which has been designated as open space. The applicant contended that  
34 open space set-asides are inappropriate in this case, and the department agrees and Council  
35 concurs.

36  

---

<sup>134</sup> On the record of the public hearing, commenters raised issues regarding the proposed facility's potential lighting impacts/visual intrusion to their property. W. and L. Seitz raised issues regarding health impacts from sleeplessness, headaches, annoyance and stress from flashing lights associated wind turbine operations. Turbine lighting is a federal safety requirement imposed by the FAA. As explained in Section IV. E, *Land Use* and Section IV.J. *Scenic Resources*, the Council imposes several conditions to reduce visual impacts and glare on surrounding properties. WRWAPPDoc115 DPO Public Comment\_T. Lindsay 2016-06-06; WRWAPPDoc101 DPO Public Comment J\_A Gould 2016-06-06; WRWAPPDoc86 DPO Public Comment\_W. Seitz 2016-06-03.

1 Based on the analysis provided above, and taking into consideration the setback conditions, the  
2 Council does not impose additional conditions under this provision.

3  
4 *C. Limiting the height, size or location of a building or other structure.*

5  
6 The applicant stated that the O&M building and substations would be located and designed to  
7 comply with standard County height and setback limits. The applicant further asserted that the  
8 height, size and location limits for the wind turbines are established through the Council's site  
9 certificate process as opposed to being established by the County. While that may be the case,  
10 as provided above, the Council does have the authority to impose additional conditions on the  
11 location of the height, size or location of a building under the Morrow County conditional use  
12 process. In this case, the County has not recommended any specific conditions related to the  
13 height, size or location of any building or structure proposed by the applicant.

14  
15 Based on the analysis provided above the Council does not adopt additional conditions under  
16 this provision.

17  
18 *D. Designating the size, number, location and nature of vehicle access points.*

- 19  
20 *1. Where access to a county road is needed, a permit from Morrow County Public*  
21 *Works department is required. Where access to a state highway is needed, a permit*  
22 *from ODOT is required.*

23  
24 The applicant stated that the facility would require the development or improvement of access  
25 roads intersecting with county roads and state highways. The applicant indicated that it would  
26 work with the Morrow County Road Department to permit specific access locations and  
27 improvement requirements, as necessary, prior to making improvements at each county road  
28 access point. Pursuant to the Site Plan Review Criteria at MCZO Section 4.165(D)(7) and as  
29 requested by Morrow County, the Council adopts Land Use Condition 4, which requires that the  
30 applicant obtain an access permit for changes in access on County roads, and requires that  
31 access roads impacting intersections with County roads are built to meet County access  
32 standards. The applicant further indicated that it would work with Oregon Department of  
33 Transportation (ODOT) for access roads that would intersect with a state highway.

34  
35 Based on the analysis provided above, and taking into consideration the access conditions, the  
36 Council imposes additional conditions under this provision.

- 37  
38 *2. In addition to the other standards and conditions set forth in this section, a Traffic*  
39 *Impact Analysis (TIA) will be required for all projects generating more than 400*  
40 *passenger car equivalent trips per day. A TIA will include: trips generated by the*  
41 *project, trip distribution for the project, identification of intersections for which the*  
42 *project adds 30 or more peak hour passenger car equivalent trips, and level of service*  
43 *assessment, impacts of the project, and mitigation of the impacts. If the corridor is a*  
44 *State Highway, use ODOT standards. (MC-C-8-98)*

1 The applicant stated that during operation, the facility would generate minimal amounts of  
2 traffic, likely less than 50 vehicle trips per day. The applicant further explained that on average  
3 the facility would generate fewer than 300 vehicle trips per day during construction, but stated  
4 that it may generate more than 400 trips per day at peak times, depending on the timing of  
5 construction activities. The applicant provided a traffic analysis in Exhibit U and the analysis  
6 assumes that the entire facility would be constructed in a single phase, which results in a  
7 maximum predicted construction traffic count. However, the applicant explained that the  
8 facility would likely be built in several phases, such that construction activities are highly  
9 unlikely to generate more than 400 trips per day even at peak times. In any case, construction  
10 traffic would be temporary. Morrow County did not request a traffic impact analysis for the  
11 facility.

12  
13 The applicant represented that it would work with the Morrow County Road Department to  
14 identify specific construction traffic-related concerns, and would develop a traffic management  
15 plan prior to construction which would specify necessary traffic control measures to mitigate  
16 for the effects of the temporary increase in traffic volumes. The Council considers this as a  
17 binding commitment by the applicant, and therefore, pursuant to OAR 345-027-0020(10),  
18 adopts the following condition:

19  
20 **Land Use Condition 13:** Before beginning construction, the certificate holder shall work  
21 with the Morrow County Road Department to identify specific construction traffic  
22 related concerns, and develop a traffic management plan that specifies necessary traffic  
23 control measures to mitigate the effects of the temporary increase in traffic. The  
24 certificate holder must provide a copy of the traffic management plan to the  
25 department and Morrow County, and must implement the traffic management plan  
26 during construction.

27  
28 Based on the analysis provided above and the applicant's representations, the Council adopts  
29 the above-referenced conditions under this provision.

30  
31 *E. Increasing the amount of street dedication, roadway width or improvements within*  
32 *the street right-of-way.*

33  
34 *1. It is the responsibility of the land owner to provide appropriate access for*  
35 *emergency vehicles at the time of development. (MC-C-8-98)*

36  
37 The applicant explained that all access roads would be constructed to accommodate heavy  
38 construction equipment, and therefore the access roads would also be suitable for emergency  
39 vehicles. The Council agrees, and does not impose additional conditions under this provision.

40

1           *F. Designating the size, location, screening, drainage, surfacing or other improvement of*  
2           *a parking area or loading area.*

3  
4           The applicant stated that parking and loading areas associated with the O&M building and  
5           substations would be surfaced with gravel, and would be graded to incorporate appropriate  
6           stormwater drainage to prevent erosion and offsite impacts. The applicant further stated that  
7           the facilities would be located and designed to comply with Morrow County standards.

8  
9           The applicant did not propose any screening or landscaping of the parking area, but confirmed  
10          that it would work with Morrow County either during the Site Plan Review process or at the  
11          building permit issuance stage to determine whether landscaping or screening may be  
12          necessary. As discussed under MCZO Section 6.050 below, in comments on the pASC Morrow  
13          County specifically requested the opportunity to discuss fencing and landscaping surrounding  
14          the O&M building.<sup>135</sup> In subsequent comments on the ASC, Morrow County requested specific  
15          condition language related to fencing and landscaping around the O&M building and similar  
16          facilities. As a result the department recommended, and the Council adopts, Land Use  
17          Condition 14. While the condition is applicable to the O&M building generally, the screening  
18          and landscaping could include requirements for the parking area.

19  
20          Based on the analysis provided above, and taking into consideration the fencing and  
21          landscaping condition, the Council does not adopt additional conditions under this provision.

22  
23           *G. Limiting or otherwise designating the number, size, location, height, and lighting of*  
24           *signs.*

25  
26          The applicant stated that it would provide a small business identification sign at the O&M  
27          building, necessary safety signage at the substations, and a small identifying number sign on the  
28          base of each turbine. Based upon the limited signage proposed, the Council does not impose  
29          any conditions related to signage under this provision.

30  
31           *H. Limiting the location and intensity of outdoor lighting and requiring its shielding.*

32  
33          As discussed above, the applicant indicated that it would install minimal outdoor lighting at the  
34          O&M building and substations. As represented by the applicant and as required by Scenic  
35          Resources Condition 1, where outdoor lighting is necessary, it would be shielded and aimed  
36          downward and inward to prevent offsite glare, and all outdoor lighting would use motion  
37          sensors and/or timers to ensure that lights are only on when needed. The applicant further  
38          explained that red flashing lights must be installed atop select turbines per FAA marking  
39          requirements, but no other turbine lighting would be used.

40  
41          Based on the analysis provided above, and taking into consideration conditions related to  
42          lighting, the Council does not impose additional conditions under this provision.

---

<sup>135</sup> WRWAPPDoc10, Morrow County Comment, February 9, 2015.

1  
2 *I. Requiring diking, screening, landscaping or another facility to protect adjacent or*  
3 *nearby property and designating standards for its installation and maintenance.*  
4

5 The applicant stated that no screening or landscaping is currently proposed and that it believed  
6 that this is consistent with most residential and agricultural facilities in the area. Nonetheless,  
7 the applicant committed to working with Morrow County either during the Site Plan Review  
8 process or at the building permit issuance stage to determine whether landscaping or screening  
9 may be necessary. As discussed under MCZO Section 6.050 below, Morrow County requested a  
10 condition related to fencing and landscaping surrounding the O&M building. As a result the  
11 department recommended, and Council adopts, Land Use Condition 14.  
12

13 Based on the analysis provided above, and taking into consideration the fencing and  
14 landscaping condition, the Council does not impose additional conditions under this provision.  
15

16 *J. Designating the size, height, location and materials for a fence.*  
17

18 In response to this provision, the applicant stated that no fencing is proposed, and therefore  
19 contended the provision does not apply. However, in response to MCZO Section 6.050(A)(2),  
20 the applicant stated that the substations, O&M building, and temporary construction yards  
21 would be fenced for security. As discussed under MCZO Section 6.050 below, Morrow County  
22 requested a condition related to fencing and landscaping surrounding the O&M building and  
23 similar facilities. As a result, the department recommended, and Council adopts, Land Use  
24 Condition 14.  
25

26 Based on the analysis provided above, and taking into consideration the fencing condition, the  
27 Council does not impose additional conditions under this provision.  
28

29 *K. Protecting and preserving existing trees, vegetation, water resources, wildlife habitat*  
30 *or other significant natural resources.*  
31

32 The applicant stated that the facility would have minimal effects on water resources, and no  
33 trees are expected to be affected. The applicant further stated that the facility has been  
34 designed to avoid impacts to critical habitat areas and to maintain the vast majority of the  
35 participating properties as open lands. The applicant addressed impacts to water resources,  
36 wildlife habitat and other natural resources in ASC Sections J, O, P, and Q. The Council has  
37 evaluated those impacts and adopted conditions of approval in Sections IV.H, *Fish and Wildlife*  
38 *Habitat*, IV.I, *Threatened and Endangered Species*, IV.S, *Removal-Fill Law*, and IV.T *Water Rights*  
39 of this final order.  
40

41 Based on the analysis provided above, and taking into consideration conditions in the identified  
42 sections of this final order, the Council does not impose additional conditions under this  
43 provision.  
44

1           *L. Other conditions necessary to permit the development of the County in conformity*  
2           *with the intent and purpose of this Ordinance and the policies of the Comprehensive*  
3           *Plan.*

4  
5 The Council does not adopt any other conditions of approval beyond those addressed above  
6 and adopted throughout this Land Use Section and other sections of this final order.

7  
8 **SECTION 6.050. STANDARDS GOVERNING CONDITIONAL USES.**

9  
10           *A conditional use shall comply with the standards of the zone in which it is located and with*  
11           *the standards set forth in this subsection.*

12  
13           *O. Radio, television tower, utility station or substation:*

14  
15                   1. *In a residential zone, all equipment storage on the site may be required to be*  
16                   *within an enclosed building.*

17  
18 The facility would not be located in a residential zone. Therefore, this standard is not applicable  
19 to the Council’s review.

20  
21                   2. *The use may be required to be fenced and provided with landscaping.*

22  
23 The applicant explained that the proposed substations, O&M building and temporary  
24 construction yards would be fenced for security. Public Health and Safety Standards for Wind  
25 Facilities Condition 2 requires that the certificate holder ensure that each facility substation is  
26 fenced during operation. The applicant has not proposed any other fencing or landscaping.  
27 However, as discussed above, Morrow County requested, and the Council adopts the following  
28 condition, as amended in the proposed order, to clarify timing of implementation:<sup>136</sup>

29  
30           **Land Use Condition 14:** During design and construction of the facility, the certificate  
31 holder shall ensure that fencing and landscaping selected and used for the O&M  
32 building and similar facility components sited within Morrow County blend with the  
33 nature of the surrounding area.

34  
35 The applicant further explained that following construction, areas temporarily disturbed would  
36 be restored and revegetated to conditions appropriate for the use of the area. Where the  
37 intended use of a temporary disturbance area is non-agricultural, the area would be  
38 revegetated using a seed mix consisting of primarily native plants, as described in the draft  
39 Revegetation Plan included as an attachment to ASC Exhibit P, and required by Fish and Wildlife

---

<sup>136</sup> In the draft proposed order, recommended Land Use Condition 14 stated, “The site certificate holder must fence and landscape O&M buildings and similar facility components sited within Morrow County so that they blend with the nature of the surrounding area.” Text was added in the proposed order to clarify that the requirements apply during design and construction of the facility.

1 Conditions 10 and 11. Where the intended use of a temporary disturbance area is agricultural,  
2 the area would be reseeded per the requirements of the landowner. The applicant contended,  
3 and the Council agrees, that these revegetation actions make additional fencing or landscaping  
4 unnecessary.

5  
6 *3. The minimum lot size for a public utility facility may be waived on finding that the*  
7 *waiver will not result in noise or other detrimental effects to adjacent property.*  
8

9 The applicant did not propose to create new lots, and the facility would be located on existing  
10 large EFU parcels which exceed the public utility facility lot size minimum. Therefore, a waiver of  
11 the minimum lot size is neither requested nor necessary.

12  
13 *4. Transmission towers, hoses, overhead wires, plumbing stations, and similar gear*  
14 *shall be so located, designed and installed as to minimize their conflict with scenic*  
15 *values.*  
16

17 The applicant addressed scenic resources in ASC Exhibit R, and stated there are no identified  
18 scenic views or resources located within or in the vicinity of the site boundary. Nonetheless, the  
19 applicant indicated that the intraconnection lines have been routed to minimize their visibility  
20 for area residents and travelers on public roads, and designed to minimize visual impacts  
21 through the use of monopoles or wooden H-frames and non- reflective finishes. The applicant  
22 further represented that collector lines would be placed underground to the extent practicable.  
23 The potential impacts of the proposed facility on identified scenic resources are discussed in  
24 the findings in Section IV.J, *Scenic Resources* of this final order. In Section IV.J, *Scenic Resources*,  
25 the Council adopts conditions of approval to minimize impacts on scenic resources.

26  
27 Based on the analysis provided above, and subject to compliance with the identified conditions,  
28 the Council finds that the facility would satisfy the applicable standards governing conditional  
29 uses.

### 30 31 **Fish and Wildlife Protection Plan for Morrow County**

32  
33 Morrow County included the Fish and Wildlife Habitat Protection Plan for Morrow County  
34 (Protection Plan) dated January 1979 in the list of applicable substantive criteria. The applicant  
35 indicated that the facility would not have significant impacts to the areas in Morrow County  
36 identified in the Protection Plan as sensitive habitat for fish or wildlife. The closest areas  
37 designated in the Protection Plan as sensitive big game habitat are located more than 10 miles  
38 to the south of the site boundary. Sensitive waterfowl habitat is limited to areas around the  
39 Columbia River and the Umatilla National Wildlife Refuge, which are more than 15 miles north  
40 of the site boundary. Sensitive nongame habitat is limited to the area within the Boardman  
41 Bombing Range.

42  
43 The applicant further indicated that the facility would avoid all impacts to waters and potential  
44 sensitive fish habitat. Pursuant to the Protection Plan, sensitive habitat for upland game birds

1 and furbearers consists primarily of riparian habitat areas and three established wildlife  
2 management areas.<sup>137</sup> The applicant stated that none of the wildlife management areas would  
3 be directly impacted by the facility. The applicant further indicated that effects to riparian areas  
4 would be limited to overhead transmission line(s) crossing riparian areas, with no direct  
5 disturbance to riparian vegetation. As detailed in ASC Exhibit P, the applicant discussed  
6 potential impacts to these areas with ODFW and the impacts were determined to be  
7 insignificant. Finally, the applicant noted that the facility includes a widely spaced series of  
8 turbines with minimal supporting infrastructure, much of which would be located underground.  
9 The applicant contended that as a result, the facility would not interfere with game movement  
10 or habitat. The applicant provided a more detailed evaluation of fish and wildlife impacts and  
11 mitigation in Exhibits P and Q, and a more detailed evaluation of impacts and mitigation is  
12 included in Section IV.H, *Fish and Wildlife Habitat* of this final order.

13

14 The Council finds that based upon the information submitted by the applicant, the evaluation  
15 above and in Section IV.H, *Fish and Wildlife Habitat* of this final order, and subject to  
16 compliance with conditions imposed in Section IV.H, *Fish and Wildlife Habitat* of this final order,  
17 the facility would be consistent with the Protection Plan.

18

### 19 **Morrow County Comprehensive Plan**

20

21 *Agricultural Policy 1: It shall be the policy of Morrow County, Oregon, to preserve*  
22 *agricultural lands, to protect agriculture as its main economic enterprise, to balance*  
23 *economic and environmental considerations, to limit non-compatible nonagricultural*  
24 *development, and to maintain a high level of livability in the County.*

25

26 The applicant argued that wind energy facilities are not inconsistent with an agriculturally-  
27 focused economy and land base, and pointed to the multitude of existing wind projects in  
28 productive agricultural areas of Morrow County and elsewhere in the state and region to  
29 support this position. The applicant further stated that the facility would provide an economic  
30 benefit to Morrow County, would not degrade the environment and would provide positive  
31 environmental effects by reducing greenhouse gases and combating climate change. Finally, the  
32 applicant contended that wind projects have not been shown to have any significant  
33 deleterious effect on livability in Morrow County or other rural areas. Finally, the applicant noted  
34 that wind projects are expressly permitted in the Morrow County EFU zone. In comments on the  
35 ASC, Morrow County added that this agricultural policy is further implemented under the EFU  
36 policy statement which encourages activities compatible with farm use, and the County  
37 concludes that the applicant has accomplished that policy goal.<sup>138</sup>

38

39 While the applicant made general statements about the benefits and impacts of a wind facility  
40 on agricultural lands, the most important factor is that wind power generation facilities are

---

<sup>137</sup> The Protection Plan specifically identifies the Irrigon Wildlife Management area, the Coyote Springs Wildlife Management area, and the Umatilla National Wildlife Refuge as sensitive habitat areas.

<sup>138</sup> WRWAPPDoc42, SAG Comment Morrow County, 08-31- 2015, p. 2.



1 expressly listed as a conditional use in EFU zones. As discussed in this Morrow County section  
2 and in the state statutes and rules section below, the Council finds that the facility satisfies all  
3 applicable substantive criteria for the proposed use in the EFU zone.

4  
5 Based upon the analysis provided above, the Council finds that the facility would be consistent  
6 with MCCP Agricultural Policy 1.

7  
8 *Energy Policy 2: [It shall be the policy of Morrow County, Oregon,] to conserve energy and*  
9 *develop and use renewable resources.*

10  
11 The applicant stated that the wind energy facility is a renewable resource that furthers Energy  
12 Policy 2. The Council agrees and finds that the facility would be consistent with MCCP Energy  
13 Policy 2.

14  
15 *Energy Policy 3: [It shall be the policy of Morrow County, Oregon,] to encourage*  
16 *development of solar and wind resources.*

17  
18 The applicant stated that the facility is a wind energy facility in furtherance of Energy Policy 3.  
19 The Council agrees and finds that the facility would be consistent with MCCP Energy Policy 3.

#### 20 21 **IV.E.2 Umatilla County**

22  
23 A portion of Wheatridge East would be located in Umatilla County, along with a short portion of  
24 the corridor for the intraconnection lines. As described in ASC Exhibit B and depicted in the ASC  
25 Exhibit C figures, the applicant would develop the following energy facilities and related or  
26 supporting facilities within Umatilla County: wind turbines and turbine pads,<sup>139</sup> electrical  
27 collection system, a substation, an intraconnection transmission line (or two parallel lines),<sup>140</sup>  
28 meteorological towers, an O&M building, and new and improved access roads. The applicant  
29 would also develop a temporary construction area within Umatilla County.

30  
31 As discussed in the introduction of this Land Use section, the applicant did not propose an  
32 interconnection transmission line to connect the wind power generation facility to the electrical  
33 grid. Instead, the applicant represented in ASC Exhibit B that the facility would be connected to  
34 the grid via overhead 230 kV transmission lines (also referred to as gen-tie lines) that would be  
35 permitted, constructed, and owned by either UEC or UEC in partnership with CBEC and would  
36 be operated by BPA. The applicant included potential interconnection transmission routes in  
37 the figures included in ASC Exhibit C. However, because the interconnection transmission line is  
38 not proposed by the applicant in the ASC, it is not evaluated as a related or supporting facility

---

<sup>139</sup> Based upon the figures in ASC Exhibit C, it appears that the applicant would construct up to 36 wind turbines in Umatilla County, depending on the turbine type selected. However, based upon the micro-siting corridor the final turbine count in Umatilla County could be slightly more or less.

<sup>140</sup> Based upon the figures in ASC Exhibit C, it appears that the applicant is proposing approximately 1 mile of the up to 32 mile intraconnection transmission line in Umatilla County.

1 for purposes of the applicant’s ASC. Umatilla County believes that the applicant must identify  
 2 and include an interconnection transmission line in its ASC and has provided extensive  
 3 comments to that effect.<sup>141</sup> Those comments are fully addressed below.

4  
 5 **Umatilla County Applicable Substantive Criteria**

6  
 7 The Council appointed the Umatilla County Board of Commissioners as a SAG pursuant to ORS  
 8 469.480(1). The Board of Commissioners provided a list of the applicable substantive criteria.<sup>142</sup>  
 9 The applicable substantive criteria related to each type of proposed facility land use, in effect  
 10 on the date the applicant submitted the ASC are presented in Table LU-2 below.

11  
 12 **Table LU-2: Applicable Substantive Criteria**

| <b>Umatilla County Development Ordinance (UCDO)</b>  |   |
|--|---|
| 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                      |
| <b>Umatilla County Comprehensive Plan (UCCP)</b>   |   |
| 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  |   |

13  
 14 **Umatilla County Development Ordinance**

15  
 16 The applicant addresses the facility in Umatilla County solely as a commercial utility facility for  
 17 the purpose of generating power for public use by sale, and specifically as wind power  
 18 generation use under that broader conditional use category.  
 19

<sup>141</sup> WRWAPPDoc34, SAG Comment UBOC, 09-16-15. See also, WRWAPPDoc17, SAG Comment UBOC, 02-12-2015.

<sup>142</sup> WRWNOIDoc2, Umatilla County Comment, 04-12-13.

1 The applicant did not address the segment of the intraconnection transmission line in Umatilla  
2 County as a utility facility necessary for public service under UCDO Section 152.617(II)(7). As  
3 discussed in the Morrow County section above, the Council has historically reviewed  
4 transmission lines associated with wind power generation facilities under a use category that is  
5 distinct from the commercial utility facility use that applies to the remainder of the facility.  
6 Specifically, transmission lines have been reviewed as “utility facilities necessary for public  
7 service” in EFU zones. Therefore, in order to be consistent with findings and conclusions in  
8 Council final orders for other wind facilities, the department requested that the applicant  
9 provide an analysis of the intraconnection as a utility facility necessary for public service.<sup>143</sup>  
10 Utility facilities necessary for public service are listed as a use that may be permitted in an EFU  
11 zone subject to administrative review at UCDO 152.059(C). While the applicant did not directly  
12 address the intraconnection transmission line under the Umatilla County code, the applicant  
13 did provide an evaluation of the intraconnection line as a utility facility necessary for public  
14 service with transmission towers not exceeding 200 feet in height, as use allowed in the EFU  
15 zone under ORS 215.283(1) subject to compliance with ORS 215.275. Because the use is  
16 allowed outright in the EFU zone under state statute, the applicant provided sufficient evidence  
17 for the department to evaluate the short section of intraconnection transmission line as a utility  
18 facility necessary for public service in Umatilla County under UCDO 152.059(C). Compliance  
19 with that provision is addressed below.  
20

21 *152.059 Land Use Decisions*

22  
23 *In an EFU zone the following uses may be permitted through a land use decision via*  
24 *administrative review (§152.769) and subject to the applicable criteria found in*  
25 *§152.617. Once approval is obtained a zoning permit (§152.025) is necessary to finalize*  
26 *the decision.*

27  
28 *(C) Utility facilities necessary for public service, including wetland waste treatment*  
29 *systems but not including commercial facilities for the purpose of generating electrical*  
30 *power for public use by sale or transmission or communication towers over 200 feet in*  
31 *height. A utility facility necessary for public service may be established as provided in*  
32 *ORS 215.275 and in §152.617(II)(7).*

33  
34 As described in Exhibit B, the facility would include up to two, parallel transmission lines  
35 (intraconnection lines) extending up to 32 miles in total length. Based upon figures provided in  
36 Exhibit C, it appears that approximately 1 mile of the intraconnection transmission line would  
37 be located in Umatilla County. In order to be consistent with past site certificate orders, the  
38 Council reviewed the intraconnection lines as “utility facilities necessary for public service”

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<sup>143</sup> The applicant maintains in ASC Exhibit K that the entire facility, specifically including the intraconnection transmission line, should be reviewed as a commercial utility facility. If the Council were to find that the intraconnection line in this case should be evaluated as part of the wind power generation facility as a conditional use, the applicant has generally included the intraconnection transmission line in its evaluation of the conditional use standards applicable to the wind power generation facility.

1 because the intraconnection transmission structures and lines are indistinguishable from  
2 interconnection or other types of transmission towers or lines.

3  
4 Under UCDO 152.059, utility facilities necessary for public service are permitted in the EFU  
5 zone, subject to ORS 215.275 and UCDO 152.617(II)(7). The intraconnection line would be  
6 located in both Morrow and Umatilla County. Therefore, this final order addresses compliance  
7 with ORS 215.275 for the entire intraconnection transmission line in Section IV.E.3 below.

8  
9 UCDO 152.059 states that once approval is obtained, a zoning permit is necessary to finalize the  
10 decision. Umatilla County stated that prior to land development or construction of structures in  
11 Umatilla County a zoning permit must be secured for each parcel.<sup>144</sup> Because a zoning permit  
12 would be needed for the facility and all related or supporting facilities, the Council adopts the  
13 following condition:

14  
15 **Land Use Condition 15:** Before beginning construction, the certificate holder must pay  
16 the requisite fee(s) and obtain a Zoning Permit(s) from Umatilla County for facility  
17 components sited within Umatilla County, including, but not limited to, turbines,  
18 substation, O&M building, and the intraconnection line.

19  
20 The Council finds that the intraconnection transmission line is a utility facility necessary for  
21 public service, a use permitted in the EFU zone subject to compliance with OAR 660-033-  
22 0130(16) and ORS 215.275. Compliance of the entire intraconnection transmission line with  
23 ORS 215.275 is addressed below.

24  
25 *152.060 CONDITIONAL USES PERMITTED.*

26  
27 *In an EFU zone the following uses may be permitted conditionally via administrative*  
28 *review (§152.769), subject to the requirements of this section, the applicable criteria in §*  
29 *152.061, §§ 152.610 through 152.615, 152.617 and §§ 152.545 through 152.562. A*  
30 *zoning permit is required following the approval of a conditional use pursuant to §*  
31 *152.025. Existing uses classified as conditional uses and listed in this section may be*  
32 *expanded subject to administrative review and subject to the requirements listed in OAR*  
33 *660, Division 033.*

34  
35 *(F) Commercial utility facilities for the purpose of generating power for public use by sale*  
36 *as provided in § 152.617 (I)(C). (For specific criteria for Wind Power Generation see*  
37 *§152.617 (I)(W)4).<sup>145</sup>*

38  
39 With the exception of the intraconnection line, all components of the wind energy facility and  
40 its related or supporting facilities qualify as a “wind power generation facility,” which is a type  
41 of “commercial utility facility for the purpose of generating power for public use by sale”

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<sup>144</sup> WRWNOIDoc42, Umatilla County Comment, 04-12-13, p. 4; WRWAPPDoc17, SAG Comment UBOC, 02-12-2015.

<sup>145</sup> UCDO 152.617(I)(W) has been deleted in its entirety and the reader is cross-referenced to UCDO 152.616(HHH).

1 allowed as a conditional use under UCDO 152.060(F). The applicable components of the wind  
2 energy facility that would be located in Umatilla County include the wind turbines, the electrical  
3 collection system, a substation, meteorological towers, and new and improved access roads.<sup>146</sup>  
4 All of these components are subject to the following applicable conditional use criteria:

5  
6 *152.061 Standards for Conditional Uses on EFU lands.*

7  
8 *The following limitations shall apply to all conditional uses in an EFU zone. Uses may be*  
9 *approved only where such uses:*

10  
11 *(A) Will not force a significant change in accepted farm or forest practices on*  
12 *surrounding lands devoted to farm or forest use; and*

13  
14 *(B) Will not significantly increase the cost of accepted farm or forest practices on lands*  
15 *devoted to farm or forest use.*

16  
17 UCDO §152.061(A) and (B) establish approval standards for all conditional uses within EFU  
18 zoned land. The applicant confirmed that there are no forest uses or forest practices within the  
19 land use analysis area. Therefore, the applicant identified and addressed accepted farm  
20 practices and surrounding lands devoted to farm use.<sup>147</sup>

21  
22 In the revised Exhibit K,<sup>148</sup> the applicant identified and described surrounding lands devoted to  
23 farm use. The applicant first generally noted that lands devoted to farm use in Morrow County

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<sup>146</sup> As discussed in the Morrow County section above, the applicant maintained that the intraconnection transmission line should be reviewed as part of the wind power generation facility, and therefore addressed the intraconnection transmission line in its responses on the applicable conditional use criteria. The Council concurs with the applicant and finds that the applicant has submitted evidence to demonstrate that the intraconnection transmission line also satisfies the applicable conditional use provisions.

<sup>147</sup> The Umatilla County conditional use standards are taken directly from ORS 215.296. Pursuant to ORS 215.203(2)(a) "farm use" means "the current employment of land for the primary purpose of obtaining a profit in money by raising, harvesting and selling crops or the feeding, breeding, management and sale of, or the produce of, livestock, poultry, fur-bearing animals or honeybees or for dairying and the sale of dairy products or any other agricultural or horticultural use or animal husbandry or any combination thereof. "Farm use" includes the preparation, storage and disposal by marketing or otherwise of the products or by-products raised on such land for human or animal use. "Farm use" also includes the current employment of land for the primary purpose of obtaining a profit in money by stabling or training equines including but not limited to providing riding lessons, training clinics and schooling shows. "Farm use" also includes the propagation, cultivation, maintenance and harvesting of aquatic, bird and animal species that are under the jurisdiction of the State Fish and Wildlife Commission, to the extent allowed by the rules adopted by the commission. "Farm use" includes the on-site construction and maintenance of equipment and facilities used for the activities described in this subsection. "Farm use" does not include the use of land subject to the provisions of ORS chapter 321, except land used exclusively for growing cultured Christmas trees as defined in subsection (3) of this section or land described in ORS 321.267(3) or 321.824(3)."

<sup>148</sup> In a comment on the pASC, Umatilla County indicated that the response to UCDO 152.061 did not include findings or analysis to satisfy the standards, and stated that a more detailed analysis is warranted. WRWAPPDoc17, SAG Comment UBOC, 02-12-2015. Umatilla also provided comments related to UCDO 152.061 in the findings

1 are used primarily for cultivation of wheat and grazing of livestock, and related accessory uses.  
2 However, as explained by the applicant, consistent with ORS 215.203, lands devoted to farm  
3 use include “wasteland” such as the grasslands and other areas that are not economical to  
4 cultivate, because they are interspersed with cultivated lands and are also within the EFU zone.  
5

6 Within the 1,702 acre portion of the site boundary in Umatilla County, approximately 1,689  
7 acres are considered devoted to farm use per ORS 215.203; of this, approximately 1,189 acres  
8 are currently used for dryland winter wheat farming or irrigated agriculture, and the remainder  
9 is nonnative and native grasslands. Through Figures K-9 and K-10, the applicant provided a  
10 detailed depiction of farm and other land uses within the analysis area and depicted land cover  
11 classifications. The applicant also provided acreages and percentages of the land uses in the  
12 analysis area and in the site boundary in Table 1 of Attachment K-1. The table includes the  
13 acreages and percentage of both irrigated and non-irrigated agriculture, habitat lands,<sup>149</sup> and  
14 developed lands both within the analysis area and within the site boundary, and provides both  
15 the total acreages and the acreages for each county. Within Umatilla County, non-irrigated  
16 agriculture comprises 2,843.9 acres of the analysis area and 864.3 acres of the site boundary;  
17 irrigated agriculture comprises 516.9 acres of the analysis area and is not present in the site  
18 boundary; and habitat land comprises 3,420.5 acres of the analysis area and 818.1 acres of the  
19 site boundary.<sup>150</sup>  
20

21 As the applicant explained in ASC Exhibit K Attachment K-1 and depicted in the figures, the  
22 majority of the land within the analysis area is devoted to dryland winter wheat farming  
23 predominantly producing soft white winter wheat.<sup>151</sup> The applicant also explained that some  
24 cattle grazing occurs in limited areas in and around the analysis area. The remainder of the  
25 lands devoted to farm use appear to be grasslands that would satisfy the definition of  
26 wastelands.  
27

28 The applicant also provided a detailed description of the accepted farming practices that occur  
29 on the surrounding lands devoted to farm use in ASC Exhibit K Attachment K-1. Specifically,  
30 Attachment K-1 describes the planting cycles for winter wheat, field preparation techniques,  
31 common farming equipment, aerial spraying by helicopter and/or airplane, irrigation  
32 techniques in the small areas of irrigated agriculture, and access issues.<sup>152</sup>

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attached to Order No. BCC2015-075. However, those comments were primarily directed at an interconnection transmission line that has not been proposed by the applicant. At the request of the department and in response to county comments, the applicant provided the more detailed analysis requested by Umatilla County through the amended Exhibit K and the addition of Attachment K-1. Umatilla County did not provide a substantive response to the Revised Exhibit K, but stated that the revised Exhibit K includes “much improved findings.” WRWAPPDoc53, SAG Comments UBOC, 02-17-2016.

<sup>149</sup> The applicant explained that “wasteland” which is land devoted to farm use, was included in the habitat category.

<sup>150</sup> As explained in ASC, Exhibit K-1, Table 1, the analysis area calculations exclude the site boundary.

<sup>151</sup> ASC, Exhibit K, Attachment K-1 Supplemental Land Use Information, pp. 1 and 8.

<sup>152</sup> Id. The applicant also described the limitations on accepted farm practices within the intraconnection transmission line right-of-way. Because the department recommended that the Council evaluate the

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The applicant asserted that the facility would not force a significant change in accepted farm practices or significantly increase the cost of farm practices. To support that position, the applicant provided the following list of reasons:<sup>153</sup>

- Facility components and temporary construction laydown and staging areas would be sited to minimize disturbance to farming operations.
- Land permanently lost to farm use due to siting of permanent Project improvements is a de minimis percentage of the total farm use land in Umatilla County; therefore the inability to use the land for farm purposes is not significant.
- Project Site Access Roads and other facilities would be constructed and maintained by Wheatridge, such that the cost burden for maintenance does not fall upon the farm or ranch owners.
- Private access roads improved or developed for the Project would benefit agricultural users of the land through improved access to farm fields and resulting lower fuel costs.
- Wheatridge will implement a weed control plan consistent with the Umatilla County Weed Control Ordinance, which will reduce the risk of weed infestation in cultivated land and the associated cost to the farmer for weed control.
- Wheatridge will record a covenant not to sue against its Project leasehold interests with regard to generally accepted farming practices on adjacent farmland.
- Construction and operation of the Project could cause changes in routes of access to fields and changes in the pattern of cultivation, seeding, fertilizing and harvesting near the turbines and Site Access Roads. To minimize this, Wheatridge, in consultation with the landowners, has laid out the facility components to minimize obstacles to farming in cultivated fields (facility components around which the farmer would have to plow, plant and harvest).
- Wheatridge will consult with area landowners during construction and operation of the facility to determine further measures to reduce or avoid any adverse impacts to farm practices on surrounding lands and to avoid any increase in farming costs.

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intraconnection transmission line as a utility facility necessary for public service, as a use allowed in the EFU zone subject only to ORS 215.275, rather than a conditional use as part of the commercial generation facility, the impacts of the transmission line on accepted farming practices is not relevant to the finding of compliance for purposes of UCDO §152.061. The Council concurs with the department. However, as addressed below, the information is relevant for purposes of the intraconnection transmission line’s compliance with ORS 215.275.

<sup>153</sup> ASC, Exhibit K, pp. 19-20.

- 1 • Construction of the Project could adversely affect soil quality by erosion or compaction.  
2 Some farmland would be temporarily disturbed and unavailable for farming during  
3 construction. To avoid or reduce adverse impacts to soil quality, Wheatridge will  
4 implement dust control and erosion-control measures during construction and  
5 operation of the facility (see Exhibit I). To the extent practicable, Wheatridge proposes  
6 to reduce impact to soils by using areas that are already disturbed and limiting the area  
7 of new disturbance.  
8
- 9 • Construction vehicles will use previously disturbed areas including existing roadways  
10 and tracks. When practical, temporary Construction Yards and laydown areas will be  
11 located within the future footprint of permanent structures. The width of new  
12 permanent roadways will be the minimum consistent with safe use. Underground  
13 communication and electrical lines will be buried within the area disturbed by  
14 temporary road widening to the extent practicable, and turbine foundations will abut  
15 roadways as closely as possible. Upon completion of construction, Wheatridge will  
16 restore temporarily disturbed areas to their pre- construction condition.  
17

18 On the record of the public hearing, W. & L. Seitz and T. Lindsay (commenters) raised issues  
19 regarding the proposed facility’s potential impacts to accepted farming practices, specifically  
20 aerial application and irrigation.<sup>154</sup> These commenters raised concern that the “project” does  
21 not meet statutory requirements and cited ORS 215.275(5) and ORS 215.283 and stated that  
22 the proposed facility would significantly impact the ability and the cost of aerial spraying.<sup>155</sup>  
23 These comments were not specific to Umatilla or Morrow counties, but similar to Morrow  
24 County, Umatilla has incorporated ORS 215.296 through UCDO 152.061. Because the analysis of  
25 the commenters’ concern related to the proposed facility’s compliance with ORS 215.296 is the  
26 same for Morrow and Umatilla counties, it is not repeated again in this section (please refer to  
27 the analysis presented in Section IV.E, *Land Use*, under the MCZO Article 6.025 section, p.78 of  
28 this final order).  
29

30 The applicant provided a detailed evaluation of the four areas of concern identified by pilots  
31 that conduct aerial spraying around wind turbines in ASC Exhibit K Attachment K-1 and  
32 explained why, despite the concerns, the facility would not force a significant change in aerial  
33 spraying nor significantly increase the cost of aerial spraying.<sup>156</sup>

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<sup>154</sup> WRWAPPDoc86 DPO Public Comment\_W. Seitz 2016-06-03; WRWAPPDoc115 DPO Public Comment\_T. Lindsay 2016-06-06.

<sup>155</sup> Commenters also cite ORS 215.213 and 215.203; however, ORS 215.213 applies to counties that adopted marginal lands system prior to 1993 and would not apply in Morrow or Umatilla counties. Moreover, ORS 215.203 defines farm uses for purposes of establishing exclusive farm use zones within county zoning ordinances. While the definition of farm use pursuant to ORS 215.203 is applicable to MCZO 6.025, it does not apply directly to the proposed facility nor would it be considered a criterion for which the facility must demonstrate compliance.

<sup>156</sup> In WRWAPPDoc34, SAG Comments UBOC, 09-16-2015, Umatilla County specifically and extensively addressed aerial spraying and noted that the original Exhibit K did not address the issue. As discussed above, Umatilla County was provided a copy of the revised Exhibit K. While not providing substantive comments, the County stated, “[t]he revised Exhibit K includes much improved Findings of compliance with land use.” WRWAPPDoc53, SAG Comments UBOC 02-17-2016.



1 The applicant also described accepted practices for increasing the visibility of met towers that it  
2 committed to applying to reduce any impacts to accepted farming practices below a significant  
3 level.

4  
5 The Council considers several of the actions described above to be binding commitments by the  
6 applicant. Therefore, the Council adopts Land Use Conditions 6, 8, 11, 12, and 21.

7  
8 The applicant added that the proposed measures are intended to avoid or minimize the impacts  
9 of the facility on farming operations, and to mitigate for necessary impacts. The applicant  
10 explained that the facility would be designed and legally structured such that the cost burden of  
11 constructing and maintaining access roads and other facilities would not fall on the landowner  
12 and would not increase the costs of farming for affected landowners. Additionally, each  
13 participating landowner would be compensated for the loss of agricultural lands, and the new  
14 income stream from lease payments would help to stabilize often-fluctuating agricultural  
15 income, making farming more sustainable. The Council agrees that the described economic  
16 factors relate to the impact of the facility on the cost of farming practices, and further supports  
17 a finding that the conditional use standards have been satisfied.

18  
19 Based upon the information provided by the applicant in Exhibit K and Attachment K-1 related  
20 to impacts on farm uses and farm practices and the analysis provided above, and subject to  
21 compliance with conditions imposed to satisfy the Land Use standard, the Council finds that the  
22 facility would satisfy the conditional use standards at UCDO 152.061.

23  
24 *152.615 Additional Conditional Use Permit Restrictions*

25  
26 *In addition to the requirements and criteria listed in this subchapter, the Hearings*  
27 *Officer, Planning Director or the appropriate planning authority may impose the*  
28 *following conditions upon a finding that circumstances warrant such additional*  
29 *restrictions: [list of conditions omitted for brevity]*

30  
31 The Council has the authority to impose additional conditions under UCDO 152.615. The  
32 County, however, did not recommend any additional conditions under this provision, and the  
33 Council does not impose any additional conditions under this provision.

34  
35 *152.616 (HHH) Conditional use criteria for commercial wind energy facilities*

36  
37 UCDO 152.616(HHH)(1) provides that the procedural requirements of 152.616(HHH)(1) through  
38 (5) do not apply to a wind power generation facilities if the Council is making the land use  
39 decision. Because the Council is making the land use decision in this case, the procedural  
40 requirements in 152.616(HHH)(1) through (5) do not apply pursuant to (1).

41  
42 UCDO 152.616(HHH)(1) through (4) contain only procedural requirements. However, it appears  
43 that UCDO 152.616(HHH)(5) includes both procedural and substantive requirements in the

1 form of a list of conditional use application submittal requirements. Consequently, the  
2 applicant addressed the substantive criteria of 152.616(HHH)(5) through (11).

3  
4 *152.616(HHH)(5) Application Requirements*

5  
6 *The following information shall be provided as part of the application, or subject to the*  
7 *County's discretionary authority, be require prior to the construction or operation of the*  
8 *Wind Power Generation Facility through a condition of approval:*

9  
10 (a) (1) *A general description of the proposed Wind Power Generation Facility;*

11  
12 (2) *A tentative construction schedule;*

13  
14 (3) *The legal description of the property on which the Wind Power Generation*  
15 *Facility will be located; and,*

16  
17 (4) *Identification of the general area for all components of the proposed Wind*  
18 *Power Generation Facility,*

19  
20 (b) *A map showing the location of components.*

21  
22 (c) (1) *Nonproprietary evidence of wind monitoring data qualifying the wind*  
23 *resources within the project boundary, such as a description of procedures and*  
24 *process for wind study.*

25  
26 (2) *Evidence of active utility transmission interconnect requests and/or process*  
27 *and description of same.*

28  
29 (3) *Route and plan for transmission facilities connecting the project to the grid.*

30  
31 (d) (1) *Demonstrate compliance with § 152.061.*

32  
33 (2) *Identify potential conflicts, if any, with neighboring rural homes. Explain how*  
34 *conflicts could be mitigated and the steps to mitigate such conflicts, e.g., noise*  
35 *easement.*

36  
37 (e) *A Transportation Plan, with proposed recommendations, if any, reflecting the*  
38 *guidelines provided in the Umatilla County Transportation System Plan (TSP) and*  
39 *the transportation impacts of the proposed Wind Power Generation Facility upon*  
40 *the local and regional road system during and after construction, after*  
41 *consultation with Umatilla County Public Works Director. The plan will designate*  
42 *the size, number, location and nature of vehicle access points.*  
43

1           (f)     *A Re-vegetation and Erosion Control Plan, developed in consultation with the*  
2                   *Umatilla County Public Works Department, Soil and Water Conservation District,*  
3                   *and appropriate Watershed Council. At a minimum, the plan shall include the*  
4                   *seeding of all road cuts or related bare road areas as a result of all construction,*  
5                   *demolition and restoration with an appropriate mix of native vegetation or*  
6                   *vegetation suited to the area. The plan shall also address monitoring during and*  
7                   *post construction. Reimbursement to agencies for their time on review shall be*  
8                   *the responsibility of the developer*

9  
10           (g)     *A Fish, Wildlife and Avian Impact Monitoring Plan. The monitoring plan shall be*  
11                   *designed and administered by the Wind Power Generation Facility*  
12                   *owner/operator's wildlife professionals. [See § 152.616 (HHH) (2), above] The*  
13                   *plan shall include the formation of a technical oversight committee to review the*  
14                   *plan, and consist of the following persons:*

15  
16                   (1) *The landowners/farm tenants.*

17  
18                   (2) *Wind Power Generation Facility owner/operator representative. (Chair)*

19  
20                   (3) *Oregon Department of Fish and Wildlife representative, if the agency chooses*  
21                   *to participate.*

22  
23                   (4) *Two Umatilla County residents with no direct economic interest in the project*  
24                   *and recommended by the applicants for appointment by the Umatilla County*  
25                   *Board of Commissioners.*

26  
27                   (5) *U.S. Fish and Wildlife representative, if the agency chooses to participate.*

28  
29                   (6) *Umatilla County Planning Commission member.*

30  
31                   *At the request of Wind Power Generation Facility owner/operator, this*  
32                   *committee requirement may be waived or discontinued by the County.*

33  
34           (h)     *An Emergency Management Plan for all phases of the life of the Wind Power*  
35                   *Generation Facility. The plan shall address the major concerns associated with*  
36                   *the site, including but not necessarily limited to terrain, dry conditions, fire*  
37                   *hazards, access, available water, and emergency response.*

38  
39                   (1) *The plan shall verify the fire district and/or contract fire department*  
40                   *responsible for providing emergency services. High rise rescue is the*  
41                   *responsibility of the Wind Power Generation Facility owner/operator with local*  
42                   *emergency responders providing ground level assistance.*

43

1           (2) A Spill Prevention, Control and Counter Measure Plan (SPCC) shall be  
2           provided. The plan shall include verification that a local emergency service  
3           provider has equipment, training and personnel to respond to spills.  
4

5           (3) An Operations and Maintenance Plan detailing expected work force, local  
6           response capability (contract or otherwise), controlled access, and in the case of  
7           transmission lines proof of emergency response capability in accordance with  
8           OPUC rules governing operation and maintenance of such lines.  
9

10          (4) An Emergency Response Plan for responding to natural and/or man made  
11          emergencies or disasters.  
12

13          (i)    A Weed Control Plan addressing prevention and control of all Umatilla County  
14          identified noxious weeds, directly resulting from the Wind Power Generation  
15          Facility during preparation, construction, operation and demolition/restoration.  
16

17          (j)    A Socioeconomic Impact Assessment of the Wind Power Generation Facility,  
18          evaluating such factors as, but not limited to, the project's effects upon the  
19          social, economic, public service, cultural, visual, and recreational aspects of  
20          affected communities and/or individuals. These effects can be viewed as either  
21          positive or negative. In order to maximize potential benefits and to mitigate  
22          outcomes that are viewed as problematic, decision makers need information  
23          about the socioeconomic impacts that are likely to occur.  
24

25          (k)    Information pertaining to the impacts of the Wind Power Generation Facility on:

26                   (1) Wetlands and streams, including intermittent streams and drainages;  
27

28                   (2) Fish, avian and wildlife (all species of concern, as well as threatened and  
29                   endangered species);  
30

31                   (3) Fish, avian and wildlife habitat;  
32

33                   (4) Criminal activity (vandalism, theft, trespass, etc.). Include a plan and roposed  
34                   actions to avoid, minimize or mitigate negative impacts.  
35

36                   (5) Open space, scenic, historic, cultural and archaeological resources as  
37                   identified and inventoried in the Comprehensive Plan. The applicant shall consult  
38                   with the Confederated Tribes of the Umatilla Indian Reservation on developing an  
39                   inventory of these resources.  
40

41          (l)    A Dismantling, Decommissioning and Restoration Plan of all components of the  
42          Wind Power Generation Facility, as provided in §152.616 (HHH) (7).  
43  
44

1 The applicant contended that except for subsection (d), UCDO 156.616(HHH)(5) lists materials  
2 that are required to be submitted to the county as part of an application for a County  
3 Conditional Use Permit, and that therefore those remaining subsections are procedural in  
4 nature and do not apply to this application pursuant to 152.616(HHH)(1). Subsection (d)  
5 requires a demonstration of compliance with UCDO 152.061, which is addressed above.  
6

7 Umatilla County comments indicate that the county believes that additional UCDO  
8 156.616(HHH)(5) are substantive, rather than procedural.<sup>157</sup> The department did not agree with  
9 the legal underpinnings of the county's position, especially as it relates to the county's belief  
10 that the applicant must include the interconnection transmission line in the application. The  
11 legal claims are addressed in detail in the Umatilla County Comment section below. Moreover,  
12 the County did not provide a complete list of the application requirements in 152.616(HHH)(1)  
13 that it believes are substantive rather than procedural.<sup>158</sup>  
14

15 While the department did not recommend that the Council evaluate the procedural  
16 requirements of 152.616(HHH)(1), the site certificate application contains exhibits that are  
17 analogous to a majority of the subsections of the UCDO 152.616(HHH)(5) county application  
18 requirements. Specifically, a description of the components and location of the proposed  
19 facility required for a county application by subsection (a) of the ordinance, is addressed in ASC  
20 Exhibits B and C. A map of the facility components, required for a county application by  
21 subsection (b), is addressed in Exhibit C. A plan for transmission facilities, required for a county  
22 application by subsection (c)(3), is addressed in Exhibits B and C of the ASC and is addressed in  
23 this final order through Organizational Expertise Condition 8 related to third party permits.<sup>159</sup>  
24

25 A demonstration of compliance with UCDO 152.061, required for a county application by  
26 subsection (d)(1), is addressed in Exhibit K. Transportation impacts of the facility, required for a  
27 county application by subsection (e), are addressed Exhibit U. Revegetation and erosion control  
28 plans, required for a county application by subsection (f), are addressed in Exhibits H and P.  
29 Fish, wildlife and avian impact monitoring, required for a county application by subsection (g), is  
30 addressed in Exhibit P. Emergency management planning and spill prevention, required for a  
31 county application by subsection (h), are addressed in Exhibit U and Exhibit G respectively.  
32 Weed control measures, required for a county application by subsection (i), are addressed in  
33 Exhibit K and Exhibit P, and Land Use Condition 6 would require the applicant to implement a  
34 weed control plan.  
35

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<sup>157</sup> WRWAPPDoc17, SAG Comment UBOC, 02-12-2015; WRWAPPDoc34, SAG Comment UBOC, 09-16-2015.

<sup>158</sup> The Order BCC2015-075 Findings, claim that the applicant failed to comply with UCDO 152.616(5)(b), (c)(3), (d)(1), (h) and (h)(4). However, it is not clear if that is a complete list.

<sup>159</sup> UCDO 152.616(HHH)(5) states that the information shall be provided as part of the county application, "or subject to the County's discretionary authority, be required prior to construction or operation of the Wind Power Generation Facility through a condition of approval." To the extent 152.616(HHH)(5) contains any substantive provisions, the Council has the same authority as the county to require the information prior to construction through a condition of approval.

1 Assessment of the facility's effects upon the social, economic, public service, cultural, visual and  
2 recreational aspects of affected communities, required for a county application by subsection  
3 (j), is addressed in Exhibits S, R, T and U. An evaluation of the facility's impacts on wetlands,  
4 wildlife, wildlife habitat, criminal activity, scenic, and historic and cultural resources, required  
5 for a county application by subsection (k), is provided in Exhibits J, P, Q, R, S, and U. A plan for  
6 decommissioning the facility, required for a county application by subsection (l), is addressed in  
7 Exhibit W.

8  
9 For the reasons set forth above, and based upon the legal analysis provided in response to  
10 Umatilla Board of County Commissioner (UBOC) comments below, the Council finds that, with  
11 the exception of subsection (d)(1), UCDO 152.616(HHH)(5) contains procedural requirements  
12 that do not apply to the facility under Council jurisdiction pursuant to UCDO 152.616(HHH)(1).  
13 In the alternative, the Council finds that to the extent UCDO 152.616(HHH)(5) contains  
14 substantive requirements, those requirements have been satisfied by the information provided  
15 in the ASC exhibits or would be satisfied through the imposition of conditions.

16  
17 *152.616(HHH)(6) Standards/Criteria of Approval.*

18  
19 *The following requirements and restrictions apply to the siting of a Wind Power*  
20 *Generation Facility:*

21  
22 *(a) Setbacks. The minimum setback shall be a distance of not less than the following:*

23  
24 *(1) From a turbine tower to a city urban growth boundary (UGB) shall be two miles. The*  
25 *measurement of the setback is from the centerline of a turbine tower to the edge of the*  
26 *UGB that was adopted by the city as of the date the application was deemed complete.*

27  
28 The applicant stated that the closest UGB in Umatilla County is 5.5 miles from the site  
29 boundary. Therefore the facility would satisfy this setback standard.

30  
31 *(2) From turbine tower to land zoned Unincorporated Community (UC) shall be 1 mile.*

32  
33 As explained by the applicant, there are no lands zoned UC within one mile of the site  
34 boundary. Therefore the facility would satisfy this setback standard.

35  
36 *(3) From a turbine tower to a rural residence shall be 2 miles. For purposes of this*  
37 *section, "rural residence" is defined as a legal, existing single family dwelling meeting*  
38 *the standards of §152.058 (F)(1)-(4), or a rural residence not yet in existence but for*  
39 *which a zoning permit has been issued, on a unit of land not a part of the Wind Power*  
40 *Generation Facility, on the date a Wind Power Generation Facility application is*  
41 *submitted. For purposes of this section, the setback does not apply to residences located*  
42 *on properties within the Wind Power Generation Facility project application. The*  
43 *measurement of the setback is from the centerline of the turbine tower to the center*  
44 *point of the rural residence.*

1  
2 The applicant indicated that there is only one dwelling within Umatilla County located within  
3 two miles of any turbines, and it is located on a unit of land that is within the site boundary.<sup>160</sup>  
4 Therefore, the facility would satisfy this setback standard.

5  
6 *(4) From a turbine tower to the boundary right-of-way of County Roads, state and*  
7 *interstate highways, 110% of the overall tower-to-blade tip height. Note: The overall*  
8 *tower-to-blade tip height is the vertical distance measured from grade to the highest*  
9 *vertical point of the blade tip.*

10  
11 The tallest turbine type under consideration by the applicant is 145 meters (476 feet) in overall  
12 height. Therefore, the minimum setback required by this standard would be 159.5 meters (523  
13 feet). The applicant stated that the micrositing corridors are defined such that any turbine  
14 would be a minimum of 160 meters (525 feet) from the right-of-ways of any public roads. To  
15 ensure compliance with this setback provision, the Council adopts the following condition, as  
16 amended:<sup>161</sup>

17  
18 **Land Use Condition 16:** During micrositing of the facility, the certificate holder shall  
19 ensure that wind turbines are sited based on a minimum setback of 110% of the overall  
20 tower-to-blade tip height from the boundary right-of-way of county roads and state and  
21 interstate highways in Umatilla County.

22  
23 *(5) From tower and project components, including transmission lines, underground*  
24 *conduits and access roads, to known archeological, historical or cultural sites shall be on*  
25 *a case by case basis, and for any known archeological, historical or cultural site of the*  
26 *Confederated Tribes of the Umatilla Indian Reservations the setback shall be no less than*  
27 *164 feet (50 meters).*

28  
29 Archeological, historic and culture resources are addressed in Exhibit S. The applicant indicated  
30 that the facility has been designed to maintain a minimum 50 meter setback to all identified  
31 archaeological, historic and cultural resources of the CTUIR in Umatilla County. The applicant  
32 further indicated that the facility has been designed to avoid impacts to all other known  
33 archaeological, historic and cultural resources deemed eligible or potentially eligible for listing  
34 on the National Register of Historic Places. However, in one case, a related or supporting facility  
35 would be located closer than 50 meters to a listed or potentially eligible historic resource in  
36 Umatilla County that is not associated with the CTUIR: the remaining evidence of the Vey Ranch  
37 phone line. The applicant explained that an access road must cross what was once a linear  
38 feature but is now a collection of widely scattered roadside utility poles with no wiring  
39 (although some are now used as fence posts); the remaining poles at this location are close

---

<sup>160</sup> ASC, Exhibit K, Figures K-7 and K-8.

<sup>161</sup> In the draft proposed order, Land Use Condition 16 stated, "Wind turbines shall be setback a minimum 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." In the proposed order, the department recommended the Council administratively amend the condition clarifying that the condition applies during micrositing of the facility.

1 enough to each other that it is not possible to achieve a setback of 50 meters. The applicant  
2 proposed to center the access road between two existing poles that are approximately 94.5  
3 meters (310 feet) apart, yielding a setback of approximately 41 meters to each pole. According  
4 to the applicant, the access road routing maximizes the setback to each pole and avoids direct  
5 impacts to the remaining evidence of the Vey Ranch Phone Line.

6  
7 The strict setback of 50 meters is not required under the Umatilla County standard for the Very  
8 Ranch phone line because it is not a CTUIR site. Nonetheless the applicant explained how it  
9 would provide the maximum setback available given the spacing of the poles, and therefore the  
10 Council finds that a setback of approximately 41 meters is an adequate setback in this case.

11  
12 *(6) New electrical transmission lines associated with the project shall not be constructed*  
13 *closer than 500 feet to an existing residence without prior written approval of the*  
14 *homeowner, said written approval to be recorded with county deed records. Exceptions*  
15 *to the 500 feet setback include transmission lines placed in a public right of way. Note:*  
16 *Transmission and distribution lines constructed and owned by the applicant that are not*  
17 *within the project boundary are subject to a separate land use permit.*

18  
19 The applicant stated that there are no dwellings in Umatilla County within 500 feet of the  
20 intraconnection line, and the applicant has represented that it does not intend to construct or  
21 own any other transmission lines in connection with the facility. Therefore, the facility would  
22 comply with this setback standard.

23  
24 *(7) The turbine/towers shall be of a size and design to help reduce noise or other*  
25 *detrimental effects. At a minimum, the Wind Power Generation Facility shall be designed*  
26 *and operated within the limits of noise standard(s) established by the State of Oregon. A*  
27 *credible noise study may be required to verify that noise impacts in all wind directions*  
28 *are in compliance with the State noise standard.*

29  
30 The State of Oregon's noise standards are addressed in Exhibit X. The applicant conducted noise  
31 modeling for both of the turbine types considered and has represented that it would operate  
32 the facility in a noise reduced operation (NRO) mode. Noise Control Conditions 2 through 5  
33 would ensure compliance with the identified noise standards.

34  
35 Based on the evaluation provided above, and subject to compliance with the identified  
36 conditions, the Council finds that the facility would satisfy the Umatilla County setback  
37 standards.

38  
39 *(b) Reasonable efforts shall be made to blend the wind turbine/towers with the natural*  
40 *surrounding area in order to minimize impacts upon open space and the natural*  
41 *landscape.*



1 The applicant indicated that the facility has been designed to minimize impacts upon  
2 undeveloped lands and the natural landscape.<sup>162</sup> Scenic impacts are addressed in Exhibit R. The  
3 Council has evaluated visual impacts in the context of the Council’s Scenic Standard in Section  
4 IV.J of this final order. While the evaluation in that section is limited to scenic resources and  
5 values identified in land management plans, the section includes conditions that would require  
6 the applicant to take reasonable actions that would result in a minimization of the visual  
7 impacts of the turbines on the landscape generally. Specifically, Scenic Resources Condition 2  
8 requires the applicant to paint or otherwise finish turbine structures in grey, white, or off-  
9 white, with a low reflectivity coating to minimize reflection and contrast with the sky. The  
10 condition also requires the applicant to minimize vegetative clearing and restore and  
11 revegetate temporary impacts as soon as practicable after construction. This retention and  
12 replacement of natural vegetation surrounding the turbines would further minimize the visual  
13 impact of the turbines.

14

15 Based on the evaluation provided above, and subject to compliance with the identified  
16 conditions, the Council finds that the facility would satisfy the Umatilla County the standard.

17

18 *(c) The development and operation of the Wind Power Generation Facility will include*  
19 *reasonable efforts to protect and preserve existing trees, vegetation, water resources,*  
20 *wildlife, wildlife habitat, fish, avian, resources, historical, cultural and archaeological*  
21 *site.*

22

23 The applicant indicated that the design and development plan for the facility included efforts to  
24 protect and preserve existing vegetation, wildlife and wildlife habitat (including avian  
25 resources), and historic, cultural and archeological resources. Impacts on these resources are  
26 described in Exhibits P, Q and S. The impacts are further discussed and evaluated in the context  
27 of the Council’s standards in the Fish and Wildlife Habitat (Section IV.H), Threatened and  
28 Endangered Species (Section IV.I), and Historic, Cultural and Archeological Resources (Section  
29 IV.K) sections of this final order. The Council adopts conditions of approval in each of those  
30 sections that generally protect and preserve the identified resources. The applicant represents  
31 in Exhibits J and O that the facility would have no impact upon fish or water resources.

32

33 Based on the evaluation provided above, and subject to compliance with the conditions in the  
34 identified sections, the Council finds that the facility would satisfy this Umatilla County  
35 standard.

36

37 *(d) The turbine towers shall be designed and constructed to discourage bird nesting and*  
38 *wildlife attraction.*

39

---

<sup>162</sup> The applicant specifically references the siting of access roads. While the described efforts may help minimize the overall visual impacts of the facility, the county standard requires efforts to minimize the visual impacts of the wind turbines and towers, and therefore the access road location is not directly responsive to the standard.

1 The applicant indicated that the turbine types identified in the ASC are designed to discourage  
2 bird nesting and wildlife attraction. Specifically, the turbine towers are hollow cylinders that do  
3 not provide perching or nesting opportunities. Likewise, the turbine nacelles are constructed  
4 with a smooth outer shell that does not facilitate perching or nesting. To further ensure that  
5 the turbine towers are designed and constructed to discourage bird nesting and wildlife  
6 attraction, the Council adopts the following condition, as amended in the proposed order to  
7 clarify timing of implementation:<sup>163</sup>

8  
9 **Land Use Condition 17:** During construction, the certificate holder shall install smooth  
10 turbine tower structures and turbine nacelles that lack perching or nesting opportunities  
11 for birds.

12  
13 Based on the evaluation provided above, and subject to compliance with the identified  
14 condition, the Council finds that the facility would satisfy the Umatilla County this standard.

15  
16 *(e) Private access roads established and controlled by the Wind Power Facility shall be*  
17 *gated and signed to protect the Wind Power Generation Facility and property owners*  
18 *from illegal or unwarranted trespass, illegal dumping and hunting and for emergency*  
19 *response.*

20  
21 The applicant indicated that it would install gates and no- trespassing signs at all access roads  
22 established or improved for the purpose of facility construction and operation. To ensure  
23 compliance with this standard, the Council adopts the following condition, as amended in the  
24 proposed order to clarify timing of implementation:<sup>164</sup>

25  
26 **Land Use Condition 18:** Prior to facility construction, the certificate holder shall install  
27 gates and no trespassing signs at all private access roads established or improved for the  
28 purpose of facility construction and operation.

29  
30 Based on the evaluation provided above, and subject to compliance with the identified  
31 condition, the Council finds that the proposed facility would satisfy this Umatilla County  
32 standard.

33  
34 *(f) Where practicable the electrical cable collector system shall be installed underground,*  
35 *at a minimum depth of 3 feet; elsewhere the cable collector system shall be installed to*  
36 *prevent adverse impacts on agriculture operations.*

---

<sup>163</sup> In the draft proposed order, recommended Land Use Condition 17 stated, “The certificate holder shall install smooth turbine tower structures and turbine nacelles that lack perching or nesting opportunities for birds.” In the proposed order, the department recommended the Council adopt administrative amendments to the condition specifying that the condition applies during construction of the proposed facility.

<sup>164</sup> In the draft proposed order, recommended Land Use Condition 18 stated, “The certificate shall install gates and no trespassing signs at all private access roads established or improved for the purpose of facility construction and operation.” In the proposed order, the department recommended the Council adopt administrative amendments to the condition specifying that the condition applies prior to construction of the proposed facility.

1  
2 The applicant represented that the electrical collector system lines would be installed  
3 underground to the extent practicable. In agricultural fields, the minimum depth would be  
4 three feet to ensure that the lines would not interfere with or be susceptible to damage from  
5 agricultural operations. In other areas the lines would be established as deep as practicable and  
6 would be designed and constructed to comply with NESC standards. Underground lines may be  
7 direct buried at specified depths or in conduit to comply with NESC standards. On the record of  
8 the June 6, 2016 public hearing, D. Richards requested that underground collector lines be  
9 placed in conduit to ensure adequate protection from wildlife impacts; however, as noted,  
10 placement of underground lines in conduit is not a regulatory requirement and therefore the  
11 Council would not have the authority to impose such a restriction.<sup>165</sup> In order to ensure  
12 compliance with the Umatilla County standard and based upon the applicant's representation,  
13 the Council adopts the following condition, as amended in the proposed order to clarify timing  
14 of implementation:<sup>166</sup>

15  
16 **Land Use Condition 19:** During construction, the certificate holder shall install the  
17 electrical cable collector system underground, where practicable. In agricultural areas,  
18 the collector system lines must be installed at a depth of 3 feet or deeper as necessary  
19 to prevent adverse impacts on agriculture operations. In all other areas, the collector  
20 system lines must be installed a minimum of 3 feet where practicable.

21  
22 Based on the evaluation provided above, and subject to compliance with the condition, the  
23 Council finds that the facility would satisfy this Umatilla County standard.

24  
25 *(g) Required permanent maintenance/operations buildings shall be located off site in*  
26 *one of Umatilla County's appropriately zoned areas, except that such a building may be*  
27 *constructed on site if:*

28  
29 *(1) The building is designed and constructed generally consistent with the character of*  
30 *similar buildings used by commercial farmers or ranchers, and*

31  
32 *(2) The building will be removed or converted to farm use upon decommissioning of the*  
33 *Wind Power Generation Facility consistent with the provisions of §152.616 (HHH) (7).*

34  
35 The applicant would construct one O&M building within the site boundary in Umatilla County.  
36 As described by the applicant, the O&M building would be a one-story building of about 6,000-

---

<sup>165</sup> WRWAPPDoc97 DPO Public Comment\_D. Richards 2016-06-06

<sup>166</sup> In the draft proposed order, recommended Land Use Condition 19 stated, "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." In the proposed order, the department recommended the Council adopt administrative amendments to the condition specifying that the condition applies during construction of the proposed facility.

1 9,000 square feet with adjacent parking, similar in appearance and construction to agricultural  
2 buildings commonly found in Umatilla County. To ensure compliance with the Umatilla county  
3 standard, the Council adopts the following condition, as amended:<sup>167</sup>

4  
5 **Land Use Condition 20:** During design and construction, the certificate holder must  
6 ensure that the O&M building in Umatilla County is consistent with the character of  
7 similar agricultural buildings used by commercial farmers or ranchers in Umatilla  
8 County.

9  
10 The applicant indicated that upon decommissioning of the facility, the O&M building would  
11 either be conveyed to the underlying landowner for farm use or removed in accordance with  
12 the approved decommissioning plan required by Retirement and Financial Assurance Condition  
13 3. The county would be protected against decommissioning costs pursuant to the bond  
14 required by Retirement and Financial Assurance Condition 4.

15  
16 Based on the evaluation provided above, and subject to compliance with Land Use Condition 2  
17 and identified conditions in other sections, the Council finds that the facility would satisfy this  
18 Umatilla County standard.

19  
20 *(h) A Wind Power Generation Facility shall comply with the Specific Safety Standards for*  
21 *Wind Energy Facilities delineated in OAR 345 024 0010 (as adopted at time of*  
22 *application).*

23  
24 The applicant addressed OAR 345-024-0010, the Public Health and Safety Standards for Wind  
25 Energy Facilities, in Exhibit DD. Compliance with the Council standard is discussed in Section  
26 IV.O, *Public Health and Safety Standards for Wind Facilities* of this final order. The Council finds  
27 that subject to compliance with the conditions adopted in that section, the facility would  
28 comply with the specific safety standards set forth at OAR 345-024-0010.

29  
30 Based upon the evaluation and conditions provided in Section IV.O, *Public Health and Safety*  
31 *Standards for Wind Facilities* of this final order, the Council finds that the facility would satisfy  
32 the Umatilla County standard.

33  
34 *(i) A Covenant Not to Sue with regard to generally accepted farming practices shall be*  
35 *recorded with the County. Generally accepted farming practices shall be consistent with*  
36 *the definition of Farming Practices under ORS 30.930. The Wind Power Generation*  
37 *Facility owner/operator shall covenant not to sue owners, operators, contractors,*

---

<sup>167</sup> In the draft proposed order, recommend Land Use Condition 20 stated, "The certificate holder must design and construct the O&M building in Umatilla County so that it is consistent with the character of similar agricultural buildings used by commercial farmers or ranchers in Umatilla County." In the proposed order, the department recommended the Council adopt administrative amendments to the condition specifying that the condition applies during design and construction of the proposed facility.

1            *employees, or invitees of property zoned for farm use for generally accepted farming*  
2            *practices.*

3  
4            The applicant indicated that it would record a Covenant Not to Sue against its leasehold  
5            interests prior to construction of the proposed facility. Umatilla County indicated that the  
6            covenant not to sue should not be limited to the lands within the site boundary.<sup>168</sup> The  
7            department agreed with the county comment, and the Council adopts the following condition  
8            to ensure compliance with the Umatilla County standard:

9  
10           **Land Use Condition 21:** Before beginning construction, the certificate holder shall  
11           record in the real property records of Umatilla County a Covenant Not to Sue with  
12           regard to generally accepted farming practices on adjacent farmland.

13  
14           Based on the evaluation provided above, and subject to compliance with this condition, the  
15           Council finds that the facility would satisfy this Umatilla County standard.

16  
17           *(j) Roads.*

18  
19           *(1) County Roads. A Road Use Agreement with Umatilla County regarding the impacts*  
20           *and mitigation on county roads shall be required as a condition of approval.*

21  
22           This county standard requires a condition for a Road Use Agreement with Umatilla County prior  
23           to beginning construction. The applicant indicated that under the terms of the required  
24           agreement, it would leave all public roads utilized during facility construction in as good or  
25           better condition as exists at the time construction commences. In order to comply with this  
26           Umatilla County standard, the Council adopts Public Services Conditions 7 and 8.

27  
28           Based on the evaluation provided above, and subject to compliance with the identified  
29           conditions, the Council finds that the facility would satisfy the Umatilla County the standard.

30  
31           *(2) Project Roads. Layout and design of the project roads shall use best management*  
32           *practices in consultation with the Soil Water Conservation District. The project road*  
33           *design shall be reviewed and certified by a civil engineer. Prior to road construction the*  
34           *applicant shall contact the State Department of Environmental Quality and if necessary,*  
35           *obtain a storm water permit (National Pollution Discharge Elimination System).*

36  
37           The applicant indicated that it would implement best management practices for storm water  
38           management as described in ASC Exhibit I, and as would be required under the terms of the  
39           NPDES permit and the associated ESCP (see Section IV.D, *Soil Protection* of this final order and  
40           Soil Protection Condition 1). ASC Exhibit E, Attachment E-1 provides a copy of DEQ's letter to  
41           the department confirming receipt of the applicant's NPDES 1200-C permit application. Further,

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<sup>168</sup> WRWAPPDoc17, SAG Comment UBOC, 02-12-2015.

1 the applicant indicated that all facility roads would be designed and reviewed by a certified civil  
2 engineer. To ensure compliance with the county standard, the Council adopts the following  
3 condition, as amended in the proposed order to clarify timing of implementation:<sup>169</sup>  
4

5 **Land Use Condition 22:** During facility design and construction of new access roads and  
6 road improvements, the certificate holder shall implement best management practices  
7 after consultation with the Umatilla County Soil Water Conservation district. The new  
8 and improved road designs must be reviewed and certified by a civil engineer.  
9

10 Based on the evaluation provided above, and subject to compliance with this condition, the  
11 Council finds that the facility would satisfy this Umatilla County standard.  
12

13 *(k) Demonstrate compliance with the standards found in OAR 660-033-0130 (37).*  
14

15 The wind power generation facility provisions at OAR 660-033-0130(37) apply in both Morrow  
16 and Umatilla counties. Therefore, the applicant submitted a combined analysis for the entire  
17 facility in ASC Exhibit K Attachment K-4. The OAR 660-033-0130(37) evaluation for the facility as  
18 a whole is provided in Section IV.E.3 below.  
19

20 *(l) Submit a plan for dismantling of uncompleted construction and/or decommissioning*  
21 *and/or re-powering of the Wind Power Generation Facility as described in §152.616*  
22 *(HHH) (7).*  
23

24 According to the applicant, the facility is designed to have a useful life of approximately 50  
25 years, at which time it may be repowered or decommissioned. Pursuant to Retirement and  
26 Financial Assurance Condition 2, the certificate holder must retire the facility in accordance  
27 with a retirement plan approved by the Council if the facility holder permanently ceases  
28 construction or operation of the facility. To address this county requirement, the Council  
29 adopts the following condition:  
30

31 **Land Use Condition 23:** Before beginning decommissioning activities, the certificate  
32 holder must provide a copy of the final retirement plan to Morrow County and Umatilla  
33 County.  
34

35 Based on the evaluation provided above, and subject to compliance with the identified  
36 conditions, the Councils find that the facility would satisfy this Umatilla County standard.  
37

---

<sup>169</sup> In the draft proposed order, recommended Land Use Condition 22 stated, “The certificate shall design and construct new access roads and road improvements using 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.” In the proposed order, the department recommends the Council adopt administrative amendments to the condition specifying that the condition applies during facility design and construction of new access roads and road improvements.

1            *(m) A surety bond shall be established to cover the cost of dismantling uncompleted*  
2            *construction and/or decommissioning of the Wind Power Generation Facility, and site*  
3            *rehabilitation pursuant to §152.616 (HHH) (7) and (8). The intent of this requirement is*  
4            *to guarantee performance (not just provide financial insurance) to protect the public*  
5            *interest and the county budget from unanticipated, unwarranted burden to*  
6            *decommission wind projects. For projects being sited by the State of Oregon’s Energy*  
7            *Facility Siting Council (EFSC), the bond or letter of credit required by EFSC will be deemed*  
8            *to meet this requirement.*

9  
10          The applicant described the necessary bond or letter of credit to cover the cost of site  
11          rehabilitation in the event of decommissioning or dismantling of uncompleted construction in  
12          ASC Exhibit W, and the Council’s requirement is addressed in Section IV.G, *Retirement and*  
13          *Financial Assurance* of this final order. Retirement and Financial Assurance Condition 4 requires  
14          the applicant to submit to the State of Oregon, through the Council, a bond or letter of credit in  
15          an amount satisfactory to restore the site to a useful, non-hazardous condition. That condition  
16          would satisfy the Umatilla County requirement.

17  
18           *(n) The actual latitude and longitude location or Stateplane NAD 83(91) (suitable for GPS*  
19           *mapping) coordinates of each turbine tower, connecting lines, O & M building,*  
20           *substation, project roads and transmission lines, shall be provided to Umatilla County on*  
21           *or before starting electrical production.*

22  
23          The applicant stated that it would provide actual locational data to Umatilla County and area  
24          emergency service providers prior to beginning electrical production. Based upon that  
25          representation and to ensure compliance with the county’s requirement, the Council adopts  
26          the following condition:

27  
28           **Land Use Condition 24:** Before beginning electrical production, the certificate hold shall  
29           provide the location of each turbine tower, electrical collecting lines, the O&M building,  
30           the substation, project access roads, and portion of the intraconnection transmission  
31           line located in Umatilla County to the department and Umatilla County in a format  
32           suitable for GPS mapping.

33  
34          Based on the evaluation provided above, and subject to compliance with this condition, the  
35          Council finds that the facility would satisfy this Umatilla County standard.

36  
37           *(o) An Operating and Facility Maintenance Plan shall be submitted and subject to County*  
38           *review and approval.*

39  
40          The applicant represented that it would provide an Operating and Facility Maintenance Plan for  
41          review and approval prior to beginning electrical production. Based upon the representation  
42          made by the applicant and to comply with the Umatilla County requirement, the Council adopts

1 the following condition, as amended in the proposed order with minor administrative  
2 changes:<sup>170</sup>

3  
4 **Land Use Condition 25:** Before beginning electrical production, the certificate holder  
5 shall prepare an Operating and Facility Maintenance Plan (Plan) and submit the Plan to  
6 the department for approval in consultation with Umatilla and Morrow Counties.

7  
8 Based on the evaluation provided above, and subject to compliance with this condition, the  
9 Council finds that the facility would satisfy this Umatilla County standard.

10  
11 *(p) A summary of as built changes to the original plan, if any, shall be provided by the*  
12 *Wind Power Generation Facility owner/operator 90 days of starting electrical*  
13 *production.*

14  
15 The applicant stated that it would comply with this requirement by providing a summary of any  
16 as-built changes to the original plan to Umatilla County within 90 days of starting electrical  
17 production. Based upon the representation and in order to ensure compliance with the county  
18 requirement, the Council adopts the following condition:

19  
20 **Land Use Condition 26:** Within 90 days of the commencement of electrical service from  
21 Wheatridge East, the certificate holder shall provide a summary of as-built changes to  
22 the department and Umatilla County.

23  
24 Based on the evaluation provided above, and subject to compliance with this condition, the  
25 Council finds that the facility would satisfy this Umatilla County standard.

26  
27 *(q) Submit a Socioeconomic Assessment of the Wind Power Generation Facility.*

28  
29 The applicant submitted what they described as an evaluation of the expected socioeconomic  
30 impacts of the proposed facility as part of ASC Exhibit U. Those impacts are discussed in the  
31 context of the Council’s Public Service Standard in Section IV.M of this final order. The applicant  
32 also addresses the long-term economic and social consequences of the proposed facility in ASC  
33 Exhibit K Exhibit K-4, which is addressed in Section IV.E.3 below in findings regarding OAR 660-  
34 033-0130(37).

35  
36 Based on the evaluation provided above, the Council finds that the facility would satisfy this  
37 Umatilla County standard.

38  
39 *152.616(HHH) (7) Dismantling/Decommissioning.*

---

<sup>170</sup> In the draft proposed order, recommended Land Use Condition 25 stated, “Before beginning electrical production, the certificate holder shall prepare an Operating and Facility Maintenance Plan and submit the Plan to the department for approval in consultation with Umatilla and Morrow Counties.” In the proposed order, the department recommended the Council adopt administrative amendments to the condition, specifying that the Plan is the Operating and Facility Maintenance Plan (Plan).



1  
2 *A plan for dismantling and/or decommissioning that provides for completion of*  
3 *dismantling or decommissioning of the Wind Power Generation Facility without*  
4 *significant delay and protects public health, safety and the environment in compliance*  
5 *with the restoration requirements of this section.*

6  
7 (a) *A description of actions the Wind Power Generation Facility owner/operator*  
8 *proposes to take to restore the site to a useful, non-hazardous condition,*  
9 *including options for post dismantle or decommission land use, information on*  
10 *how impacts on fish, wildlife, avian populations and the environment would be*  
11 *minimized during the dismantling or decommissioning process, and measures to*  
12 *protect the public against risk or danger resulting from post decommissioning*  
13 *site conditions in compliance with the requirements of this section.*

14  
15 (b) *A current detailed cost estimate, a comparison of that estimate with present*  
16 *funds, the bond for dismantling or decommissioning, and a plan for the*  
17 *availability of adequate funds for completion of dismantling or decommissioning.*  
18 *The cost estimate will be reviewed and be updated by the Wind Power*  
19 *Generation Facility owner/operator on a 3 year basis, unless material changes*  
20 *have been made in the overall Wind Power Generation Facility that would*  
21 *materially increase or decrease these costs. If so, the report must be revised*  
22 *within 120 days of completion of such changes.*

23  
24 (c) *Restoration of the site shall consist of the following:*

25  
26 (1) *Dismantle turbines, towers, pad mounted transformers, meteorological*  
27 *towers and related aboveground [sic] equipment. All concrete turbine*  
28 *pads shall be removed to a depth of at least three feet below the surface*  
29 *grade.*

30  
31 (2) *The underground collection and communication cables need not be*  
32 *removed if at a depth of three feet or greater. These cables at a depth of*  
33 *three feet or greater can be abandoned in place if they are deemed not a*  
34 *hazard or interfering with agricultural use or other resource uses of the*  
35 *land.*

36  
37 (3) *Gravel shall be removed from areas surrounding turbine pads.*

38  
39 (4) *Private access road areas shall be restored by removing gravel and*  
40 *restoring the surface grade and soil, unless the landowner directs*  
41 *otherwise.*

42  
43 (5) *After removal of the structures and roads, the area shall be graded as*  
44 *close as is reasonably possible to its original contours and the soils shall*

1 *be restored to a condition compatible with farm uses or consistent with*  
2 *other resource uses. Re vegetation shall include planting by Wind Power*  
3 *Generation Facility owner/operator of native plant seed mixes, planting*  
4 *by Wind Power Generation Facility owner/operator of plant species suited*  
5 *to the area, or planting by landowner of agricultural crops, as*  
6 *appropriate, and shall be consistent with the weed control plan approved*  
7 *by Umatilla County.*

8  
9 (6) *Roads, cleared pads, fences, gates, and improvements may be left in*  
10 *place if a letter from the land owner is submitted to Umatilla County*  
11 *indicating said land owner will be responsible for, and will maintain said*  
12 *roads and/or facilities for farm or other purposes as permitted under*  
13 *applicable zoning.*

14  
15 The applicant indicated that the facility is designed to have a useful life of approximately 50  
16 years. As discussed above and in the Retirement and Financial Assurance Section (IV.G),  
17 pursuant to Council provisions, any certificate holder must return a site to a useful, non-  
18 hazardous condition when the facility permanently ceases operations. Retirement and  
19 Financial Assurance Condition 2 requires the applicant to submit a retirement plan for  
20 Council approval and requires compliance with the plan. As indicated in Retirement and  
21 Financial Assurance Condition 2, final retirement plans must comply with OAR 345-027-0110.  
22 Pursuant to OAR 345-027-0110(5), final retirement plans must provide for completion of  
23 retirement without significant delay in a way that protects public health, safety and the  
24 environment. The final plan must also provide a description of the actions the certificate  
25 holder proposes to take to restore the site to a useful, non-hazardous condition, including  
26 information on how impacts to fish, wildlife and the environment would be minimized during  
27 the retirement process. The public and the reviewing agencies are provided an opportunity  
28 to comment on the final plan. The Retirement and Financial Assurance Condition 2 and the  
29 requirements of OAR 345-027-0110 are consistent with UCDO 152.616(HHH)(7).

30  
31 UCDO 152.616(HHH)(7) contains minimum county requirements for site restoration. The  
32 restoration required by the county ordinance is consistent with the restoration activities the  
33 applicant identified in ASC Exhibit W. In order to ensure that the final retirement plan  
34 includes the minimum restoration requirements contained in UCDO 152.616(HHH)(7)(c), the  
35 Council adopts the following condition, as amended in the proposed order to clarify timing of  
36 implementation:<sup>171</sup>

37  
38 **Land Use Condition 27:** Prior to facility retirement, the certificate holder must include  
39 the following minimum restoration activities in the proposed final retirement plan it  
40 submits to the Council pursuant to OAR 345-027-0110 or its equivalent:

---

<sup>171</sup> In the proposed order, the department recommends the Council adopt administrative amendments to recommended Land Use Condition 27 specifying that the condition applies prior to facility retirement.

- 1           1.    Dismantle turbines, towers, pad mounted transformers, meteorological towers  
2           and related aboveground equipment, and remove concrete pads to a depth of  
3           at least three feet below the surface grade.
- 4           2.    Remove underground collection and communication cables that are buried less  
5           than three feet in depth and are deemed by Council to be a hazard or a source  
6           of interference with surface resource uses.
- 7           3.    Remove gravel from areas surrounding turbine pads.
- 8           4.    Remove and restore private access roads unless the landowners directs  
9           otherwise.
- 10          5.    Following removal of facility components, grade disturbed areas as close as  
11          reasonably possible to the original contours and restore soils to a condition  
12          compatible with farm uses or other resources uses.
- 13          6.    Revegetate disturbed areas in consultation with the land owner and in a manner  
14          consistent with the final Revegetation Plan referenced in Fish and Wildlife  
15          Condition 11.
- 16          7.    If the landowner wishes to retain certain facilities, provide a letter from the land  
17          owner that identifies the roads, cleared pads, fences, gates and other  
18          improvements to be retained and a commitment from the land owner to  
19          maintain the identified facilities for farm or other purposes permitted under the  
20          applicable zone.

21  
22   Based on the evaluation provided above, and subject to compliance with this condition, the  
23   Council finds that the facility would satisfy this Umatilla County standard.

24  
25           *152.616(HHH)(8) Decommissioning Fund.*

26  
27           *The Wind Power Generation Facility owner/operator shall submit to Umatilla*  
28           *County a bond acceptable to the County, in the amount of the decommissioning*  
29           *fund naming Umatilla County beneficiary or payee. [Detailed list of bond*  
30           *conditions omitted for brevity.]*

31  
32   As discussed above and in findings addressing the Retirement and Financial Assurance  
33   standard, Section IV.G, pursuant to Council provisions, any certificate holder must return a  
34   site to a useful, non-hazardous condition when the facility permanently ceases operations.  
35   The Retirement and Financial Assurance Condition 4 requires the certificate holder to  
36   submit to the Council before beginning construction, a bond or letter of credit in a form and  
37   amount satisfactory to restore the site to a useful nonhazardous condition upon retirement  
38   of the facility. Retirement and Financial Assurance Condition 3 allows the Council to draw  
39   on the bond or letter of credit to restore the site to a useful, nonhazardous condition in the  
40   event the certificate holder does not comply with its retirement and decommissioning  
41   obligations.

42  
43   As provided at UCDO 152.616(HHH)(7)(m), the bond or letter of credit required by the  
44   Council for an energy facility under Council jurisdiction would satisfy the county's bond

1 requirement.

2

3 Based on the evaluation provided above, and subject to compliance with the identified  
4 conditions, the Council finds that the facility would satisfy the Umatilla County requirement.

5

6 *152.616(HHH)(9) Annual Reporting.*

7

8 *Within 120 days after the end of each calendar year the Wind Power*  
9 *Generation Facility owner/operator shall provide Umatilla County a written and*  
10 *oral annual report including the following information: [Detailed list of report*  
11 *contents omitted for brevity.]*

12

13 UCDO 152.616(HHH)(9) states that “[f]or Wind Power Generation Facilities under EFSC  
14 jurisdiction and for which an annual report is required, the annual report to EFSC satisfies  
15 this requirement.” Pursuant to OAR 345-026-0080, an energy facility certificate holder must  
16 submit a semiannual construction progress report to the department during construction  
17 and an annual report once construction is complete. As provided, this annual reporting  
18 requirement satisfies UCDO 152.616(HHH)(9).

19

20 However, to ensure that the County is provided the information contained in the annual  
21 reports, the Council adopts the following condition as amended in the proposed order to  
22 clarify timing of implementation:<sup>172</sup>

23

24 **Land Use Condition 28:** During construction and operation of the facility, the  
25 certificate holder shall deliver a copy of the annual report required under OAR 345-  
26 026-0080 to the Umatilla County Planning Commission on an annual basis.

27

28 *152.616(HHH)(10) Permit Amendments.*

29 *The Wind Power Generation Facility requirements shall be facility specific, but can*  
30 *be amended as long as the Wind Power Generation Facility does not exceed the*  
31 *boundaries of the Umatilla County conditional use permit where the original Wind*  
32 *Power Generation Facility was constructed. ... An amendment to a Site Certificate*  
33 *issued by EFSC will be governed by the rules for amendments established by [EFSC].*

34

35 As provided in UCDO 152.616(HHH)(10), an amendment to a site certificate issued by the  
36 Council would be governed by the Council’s amendment rules. Because the Council would be  
37 issuing the site certificate for the facility, the UCDO permit amendment provisions are satisfied.  
38 Umatilla County provided a comment stating that an amendment to the site certificate would  
39 require an amendment to the county conditional use permit and a new or revised zoning

---

<sup>172</sup> In the proposed order, the department recommended the Council adopt administrative amendments to recommended Land Use Condition 28 specifying that the condition applies during construction and operation of the proposed facility.

1 permit.<sup>173</sup> It may be the case that the nature of an amendment request would require a site  
2 certificate holder to obtain an amendment to the county conditional use permit and/or a  
3 zoning permit. However, the scope of the amendment request dictates whether an amendment  
4 to a conditional use permit or zoning permit would be necessary.<sup>174</sup>

5  
6 *152.616(HHH)(11) Walla Walla Watershed.*

7  
8 UCDO 152.616(HHH)(11) only applies to land within the Walla Walla sub-basin east of  
9 Highway 11. Because the facility is not located in the identified area, this criterion is not  
10 applicable to this ASC.

11  
12 **2.2.3 UCCP Policies**

13  
14 *Citizen Involvement:*

15  
16 *1. Provide information to the public on planning issues and programs, and encourage*  
17 *continuing citizen input to planning efforts.*

18  
19 *5. Through appropriate media, encourage those County residents' participation during*  
20 *both city and County deliberation proceedings.*

21  
22 The identified Citizen Involvement policies are procedural and do not contain substantive  
23 standards applicable to the siting of the facility. The applicant elected to have the Council make  
24 the land use decision for the facility in accordance with ORS 469.504(1)(b), and therefore, the  
25 Council's procedural requirements apply.

26  
27 The Council's procedure for making a site certificate decision is a public process. The application  
28 is a public document that has been made available on the department's website. The  
29 documents issued by the department related to the ASC are also public documents, and most  
30 are posted on the department's website. Additionally, the department uses direct mailing and  
31 emails, newspaper publication and the department's website to inform the public about the  
32 proceedings related to the proposed site certificate and the opportunity for public  
33 participation. There are opportunities for public comment throughout the ASC review process,  
34 and there is a hearing on the department's draft proposed order. Following issuance of a  
35 proposed order, those who commented on the record of the draft proposed order have an  
36 opportunity to request party status in a contested case. Finally, those who participated as

---

<sup>173</sup> WRWAPPDoc17, SAG Comment UBOC, 02-12-2015.

<sup>174</sup> Additionally, ORS 469.401(2) applies to site certificate amendments as well as original site certificates. Therefore, if a site certificate amendment required a certificate holder to obtain an amended conditional use or zoning permit, the county would be required to issue the amended permit without hearing or other proceedings and subject only to the conditions included in the amended site certificate. Therefore, the department encourages Umatilla County to participate as a SAG in any future site certificate amendment requests.

1 parties in a contested case have the opportunity to file exceptions with the Council on the  
2 proposed contested case order. All Council meetings are open to the public.

3  
4 In this case, it appears that the Umatilla County Planning Commission held a public hearing on  
5 August 27, 2015 and accepted testimony before making recommendations to the UBOC.<sup>175</sup> The  
6 UBOC held a hearing on September 9, 2015 to review the ASC and the recommendations of the  
7 Planning Commission. It further appears that the UBOC considered public comments presented  
8 during its hearing when drafting its comments to the department and Council in the form of  
9 Order No. BCC2015-075 and the attached UBOC Special Advisory Group Findings.<sup>176</sup>

10  
11 Agriculture:

12  
13 *1. Umatilla County will protect, with Exclusive Farm Use zoning pursuant to ORS 215,*  
14 *lands meeting the definition of farmland in this plan and designated as Agricultural on*  
15 *the Comprehensive Plan Map.*

16  
17 Umatilla County has established an EFU zone and has implemented ordinances to protect  
18 farmland. The portion of the facility within Umatilla County would be located entirely on EFU  
19 zoned lands. The applicable EFU ordinances from the UCDO are addressed in the UCDO section  
20 above.

21  
22 *8. The county shall require appropriate procedures/ standards/policies be met in the*  
23 *Comprehensive Plan and Development Ordinance when reviewing non-farm uses for*  
24 *compatibility with agriculture.*

25  
26 The UBOC was appointed as a SAG for the proposed facility and they identified the applicable  
27 substantive criteria for reviewing the facility as a non-farm use.<sup>177</sup> UBOC has participated in the  
28 Council's ASC process as a SAG pursuant to ORS 469.504.

29  
30 *17. Continue to encourage timber management to occur on lower elevation seasonal*  
31 *grazing as permitted in the Exclusive Farm Use Zone.*

32  
33 The applicant indicated that there is no active timber management within the site boundary in  
34 Umatilla County. Therefore, there would be no conflict between the wind energy facility use  
35 and the County's goal to encourage timber management in appropriate areas zoned EFU.

36  
37 Open Space, Scenic & Historic Areas, and Natural Areas:

---

<sup>175</sup> WRWAPPDoc34, SAG Comments UBOC, 09-16-15.

<sup>176</sup> While the Planning Commission and Board of Commissioners are free to hold public hearings for the purpose of informing the SAG comments to the department and Council, in order to comment on the draft proposed order and preserve an opportunity to request party status in the contested case, members of the public must provide comments directly to the department after issuance of the draft proposed order and before the close of the record on the public hearing pursuant to ORS 469.370 and OAR 345-015-0220.

<sup>177</sup> WRWNOIDoc42, Umatilla County Comment, 04-12-13.

1  
2           1. (a) *The County shall maintain this resource [Open Space] by limiting development*  
3           *mainly to existing built up areas.*  
4

5 This policy is related to the finding that Umatilla County has a sparse rural population and is  
6 predominantly open space. The wind power generation facility and associated intraconnection  
7 transmission lines are conditional and allowed uses in the EFU zone. The facility must be built in  
8 areas of open space with sufficient wind resources to support economic generation.

9 Nonetheless, the facility would consist of wind turbines spaced at large intervals, and  
10 supporting infrastructure, much of which would be buried underground. Therefore, most of the  
11 land area within the site boundary would remain open.

12  
13 The site boundary is crossed by several highways, and there is an existing wind energy facility  
14 immediately to the west. The applicant asserted that the facility would not significantly alter  
15 the rural, sparsely developed character of the site boundary and surrounding lands, and the  
16 Council agrees.

17  
18           5. (a) *The County shall maintain rural agricultural lands, Development shall be of low*  
19           *density to assure retention of upland game habitat,*  
20

21 The applicant noted that although the site boundary for the facility encompasses a fairly large  
22 geographic area, the density of developed areas due to the facility and existing land uses would  
23 remain very low, and the vast majority of land within the site boundary would remain available  
24 for agricultural uses. Additionally, the applicant explained that most facility impacts would  
25 occur on agricultural lands such that upland game habitat, and particularly the streams,  
26 wetlands and riparian areas on which game relies, would be minimally affected. The Council  
27 addresses impacts on upland game habitat and associated mitigation requirements in Section  
28 IV.H, *Fish and Wildlife Habitat* of this final order.

29  
30           (b) *Land uses should maintain the vegetation along stream banks, fence rows, woodlots,*  
31           *etc. Research ways to reduce harassment and loss of upland game by free roaming dogs*  
32           *and cats.*  
33

34 As explained by the applicant, existing agricultural uses on land within the site boundary would  
35 be able to continue with minimal disruption once facility construction is complete. The facility  
36 includes a widely spaced series of turbines with minimal supporting infrastructure, much of  
37 which is located underground. The applicant did not propose significant new fencing. Therefore  
38 the impact of the facility on game movement or habitat is limited. The applicant indicated that  
39 sensitive habitat and vegetated areas along stream banks, fence rows and woodlots would not  
40 be permanently disturbed by the facility. Impacts to wildlife habitat and mitigation for  
41 unavoidable impacts are discussed in greater detail in Section IV.H, *Fish and Wildlife Habitat* of  
42 this final order. Finally, there appear to be no characteristics of the facility that would attract or  
43 exacerbate the problem of free roaming dogs and cats.

1           6. (a) *Developments or land uses that require drainage, channelization, filling or*  
2           *excessive removal of riparian vegetation in sensitive waterfowl areas should be*  
3           *identified.*

4  
5           The applicant identified the habitat within the site boundary in ASC Exhibit P and habitat  
6           impacts are evaluated in Section IV.H, *Fish and Wildlife Habitat* of this final order. The applicant  
7           represents that the facility would not require drainage, channelization, filling or excessive  
8           removal of riparian vegetation in sensitive waterfowl areas.

9  
10           8. (a) *Setbacks shall be established to protect significant and other wetlands.*

11  
12           The applicant indicated that the facility was designed to avoid impacts to wetlands, and  
13           maintains sufficient setbacks from wetland edges to prevent indirect impacts to nearby  
14           wetlands. The applicant addressed wetland impacts in ASC Exhibit J and compliance with the  
15           wetland removal-fill laws is address in Section IV.S, *Removal-Fill Law* of this final order.

16  
17           9. (a) *The County shall encourage land use practices which protect and enhance*  
18           *significant wetlands.*

19  
20           It does not appear that the site boundary includes any wetlands identified in the  
21           comprehensive plan as “significant.” Furthermore, the applicant represented that the facility  
22           would not impact any wetlands in Umatilla County.

23  
24           10. (c) *Compatible land use shall maintain the riparian vegetation along streams in the*  
25           *floodplain. Stream bank vegetation shall be maintained along streams outside of the*  
26           *floodplain by utilizing appropriate setbacks.*

27  
28           The applicant represented that it designed the facility to avoid impacts to riparian or other  
29           stream bank vegetation, and further represents that it would satisfy all UCDO setback  
30           requirements.

31  
32           (d) *Development or land use that requires channelization, excessive removal of*  
33           *streamside vegetation, alteration of stream banks and filling into stream channels shall*  
34           *be restricted in order to maintain streams integrity.*

35  
36           Once again, the applicant indicated that it has designed the facility to avoid nearly all impacts to  
37           streams, and that the facility would impact only ephemeral streams where access roads must  
38           cross. The applicant committed to taking all appropriate measures to maintain stream integrity,  
39           and indicated that the streams would be channelized only to the extent necessary to flow  
40           through a culvert under a road. The applicant indicated that streamside vegetation removal  
41           would be avoided to the extent practicable, and the applicant would be required to restore  
42           temporarily disturbed areas to approximately original contours and reseed with native species  
43           as required by the Revegetation Plan referenced in Fish and Wildlife Condition 11.



1           (e) *New roads, bridges and access rights-of-way shall be designed to avoid channel*  
2           *capacity, and minimize removal of shoreline vegetation.*

3  
4   As discussed above, facility access roads would cross ephemeral streams. However, the  
5   applicant indicated that channelization would be limited and removal of shoreline vegetation  
6   would be avoided to the extent practicable. Further, the applicant indicated that any new or  
7   improved roads would be sited in consultation with the affected landowner to minimize  
8   removal of shoreline vegetation. Finally, the applicant indicated new roads would not adversely  
9   affect channel capacity.

10  
11           20. (a) *Developments of potentially high visual impacts shall address and mitigate*  
12           *adverse visual effects in their permit application, as outlined in the Development*  
13           *Ordinance standards.*

14  
15           (b) *It is the position of the County that the Comprehensive Plan designations and zoning*  
16           *already limit scenic and aesthetic conflicts by limiting land uses or by mitigating conflicts*  
17           *through ordinance criteria. However, to address any specific, potential conflicts, the*  
18           *County shall insure special consideration of the following when reviewing a proposed*  
19           *change of land use:*

20  
21                   (1) *Maintaining natural vegetation whenever possible.*

22  
23                   (2) *Landscaping areas where vegetation is removed and erosion might result.*

24  
25                   (3) *Screening unsightly land uses, preferably with natural vegetation or*  
26                   *landscaping.*

27  
28                   (4) *Limiting rights-of-way widths and numbers of roads intersecting scenic*  
29                   *roadways to the minimum needed to safely and adequately serve the uses to*  
30                   *which they connect.*

31  
32                   (5) *Limiting signs in size and design so as not to distract from the attractiveness*  
33                   *of the area.*

34  
35                   (6) *Siting Developments to be compatible with surrounding area developments*  
36                   *and recognizing the natural characteristics or the location.*

37  
38                   (7) *Limiting excavation and filling only to those areas where alteration of the*  
39                   *natural terrain is necessary and re-vegetating such areas as soon as possible.*

40  
41                   (8) *Protection vistas and other views which are important to be recognized*  
42                   *because of their limited number and importance to the visual attractiveness of*  
43                   *the area.*

1 Because of the size and prominence of the turbines, wind energy facilities are developments of  
2 potentially high visual impact. However, wind energy projects are a conditional use in the  
3 Umatilla County EFU zone. As called for by this UCCP policy, aesthetic and scenic conflicts are  
4 already largely mitigated through the substantive criteria applicable to the facility and  
5 conditions proposed through the Council’s Scenic Resources Standard. UCDO  
6 152.616(HHH)(6)(b) requires reasonable efforts to blend the turbines with the surrounding  
7 natural area. As discussed under that criterion, the applicant addresses scenic impacts in ASC  
8 Exhibit R. Section IV.J, *Scenic Resource* of this final order includes conditions that require that  
9 the applicant take reasonable actions to minimize the visual impacts of the turbines on the  
10 landscape generally. Specifically, Scenic Resources Condition 2 requires the applicant to paint or  
11 otherwise finish turbine structures in grey, white, or off-white, with a low reflectivity coating to  
12 minimize reflection and contrast with the sky. The condition also requires the applicant to  
13 minimize vegetative clearing and restore and revegetate temporary impacts as soon as  
14 practicable after construction. This retention and replacement of natural vegetation  
15 surrounding the turbines would further minimize the visual impact of the turbines.

16  
17 Additionally, there are no Umatilla County identified or designated scenic views or resources in  
18 the vicinity of the facility. Nonetheless, the facility would incorporate many of the design  
19 guidance elements enumerated in this policy, minimizing aesthetic impacts as well as other  
20 impact types. For example, vegetation removal would be largely limited to agricultural crops,  
21 with very little impacts to native vegetation and no impacts to trees. As provided above,  
22 disturbed areas would be revegetated as soon as practicable following construction to restore  
23 the visual quality of the land and to prevent erosion. The applicant indicated that access roads  
24 have been reduced to the minimum length necessary for facility construction and operation,  
25 and the roads would be narrowed following construction to a minimum width needed for  
26 typical maintenance vehicles. Access roads do not intersect with designated scenic roadways.  
27 The applicant only proposed small identifying markers and “no trespassing” signs at the base of  
28 each turbine, safety signage within each collector substation, and a small identifying sign at the  
29 O&M building. The applicant did not propose commercial signage. As required by Land Use  
30 Condition 19, electrical collector lines would be located underground to the extent practicable,  
31 and the intraconnection corridor appears to minimize the visibility of the intraconnection line  
32 from major public roads. The applicant indicated that access road routes and turbine locations  
33 were selected to limit the need for cut and fill, and to follow existing terrain as much as  
34 possible. Finally, the turbines represent a nontraditional structure on the landscape that cannot  
35 reasonably be screened. However, pursuant to Land Use Condition 20, the O&M building to be  
36 located within Umatilla County would be similar in appearance to other existing agricultural  
37 structures in the area, thereby limiting the visual impacts of that structure.

38  
39 *22. The County shall cooperate with state agencies and other historical organizations to*  
40 *preserve historic buildings and sites, cultural areas, and archeological sites and artifacts.*

41  
42 *23. (a) Umatilla County shall encourage and cooperate in developing a detailed county-*  
43 *wide historic site inventory.*

44

1           24. (a) Umatilla County shall protect significant historical and cultural sites from land use  
2           activities which diminish their value as historical resources.

3  
4           26. The County shall cooperate with the Tribe, Oregon State Historic Preservation Office,  
5           and others involved in concern identifying and protecting Indian cultural areas and  
6           archeological sites.

7  
8           The applicant addresses the potential impacts of the facility on historic, cultural and  
9           archeological resources in ASC Exhibit S. The Council evaluates those impacts and adopts  
10          conditions of approval necessary to satisfy the Council’s Historic, Cultural and Archeological  
11          Resources Standard in Section IV.K, *Historic, Cultural and Archeological Resources* of this final  
12          order. Pursuant to OAR 345-001-0010, the State Historic Preservation Office (SHPO) is a  
13          reviewing agency for purposes of the Council’s ASC process. SHPO received a copy of the ASC  
14          and the applicant’s historic and cultural resource survey.

15  
16          There are no historic buildings located within the site boundary in Umatilla County. The  
17          applicant represented that it has avoided all other known historic, cultural and archaeological  
18          resources through modifications to the facility layout. The Legislative Commission on Indian  
19          Services identified the CTUIR as a reviewing tribal government, and the applicant contracted  
20          with the CTUIR to survey the area for cultural and archaeological resources. As noted above,  
21          the applicant provided a full report of their findings to CTUIR and SHPO. SHPO submitted a  
22          comment letter to the department indicating that it concurred with the eligibility  
23          recommendations provided in the applicant’s report and that the proposed facility, with  
24          implementation of appropriate avoidance measures, would not likely have an effect on any  
25          significant archeological objects or sites.<sup>178</sup> The Council adopts Historic, Cultural and  
26          Archeological Resources Conditions 1 through 4 to ensure that the identified resources are  
27          protected during facility construction.

28  
29          In the event that previously undiscovered sites or artifacts are found during construction,  
30          Historic, Cultural and Archeological Resources Condition 5 requires the applicant to cease all  
31          ground-disturbing activities and notify SHPO. The condition also requires the applicant to  
32          consult with SHPO and interested tribes, including CTUIR, to determine appropriate avoidance  
33          and mitigation measures.

34  
35                37. The County shall ensure compatible interim uses provided through Development  
36                Ordinance standards, and where applicable consider agriculturally designated land as  
37                open space for appropriate and eventual resource or energy facilities use.

38  
39          The UCDO section above addresses applicable standards for a wind energy facility in the EFU  
40          zone. The county, however, did not identify specific ordinances that ensure compatible interim  
41          uses of lands set aside for an identified use. Nonetheless, the facility is consistent with this

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<sup>178</sup> WRWAPPDoc16, Agency Comment SHPO Concurrence Letter, 08-18-2014. In a comment letter received from SHPO, concurrence with the results of field surveys was provided.

1 policy because agricultural lands have been identified as appropriate areas for wind energy  
2 facility use provided the conditional use requirements are satisfied.

3  
4 *38. (a) The County shall encourage mapping of future agencies [sic] sites, ensure their  
5 protection from conflicting adjacent land uses, and required reclamation plans.*

6  
7 The applicant indicated that the facility would not impact any known aggregate sites, and no  
8 landowners have disclosed the existence of any such sites or prospective sites within the site  
9 boundary or surrounding areas. The applicant stated that the facility would not prevent the  
10 future development of aggregate or mineral extraction sites, and would not represent a  
11 conflicting land use that would adversely affect or be adversely affected by mining activities in  
12 the vicinity. The Council agrees.

13  
14 *(b) Aggregate and mineral exploration, extraction, and reclamation shall be conducted in  
15 conformance with the regulations of the Department of Geology and Mineral Industries.*

16  
17 The applicant provided that the facility would not involve aggregate or mineral exploration,  
18 extraction or reclamation, and would not impact any existing aggregate or mineral extraction  
19 sites except to the extent that the applicant intends to purchase aggregate from an existing,  
20 permitted mine. The county has requested that the source of the aggregate be identified by the  
21 applicant.<sup>179</sup> Organizational Expertise Condition 7 requires the applicant to provide that  
22 information to the county.

23  
24 *(c) The County Development Ordinance shall include conditional use standards and other  
25 provisions to limit or mitigate conflicting uses between aggregate sites and surrounding  
26 land uses.*

27 The applicant indicated that the facility would not impact any known aggregate sites, and no  
28 landowners have disclosed the existence of any such sites or prospective sites within the site  
29 boundary. As discussed above, the applicant did not propose to develop an aggregate or other  
30 mining site. Instead, the applicant intends to obtain aggregate from an existing permitted  
31 source.

32  
33 *39. (a) The County shall strictly enforce state and county development standards  
34 pertaining to gravel extraction/processing uses through appropriate agencies; whether  
35 new operations or expansions of existing sites.*

36  
37 As discussed above, the applicant did not propose to develop a new mining site, nor expand an  
38 existing mining site. Instead the applicant intends to obtain aggregate from an existing  
39 permitted source. Organizational Expertise Condition 7 requires the certificate holder to  
40 provide the department, Morrow County, and Umatilla County with the name and location of  
41 the aggregate source and evidence of the source's county permit prior to construction.

42  

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<sup>179</sup> WRWAPPDoc17, SAG Comment UBOC, 02-12-2015.

1           42. (a) *Encourage development of alternative sources of energy.*  
2

3 As a wind energy generation facility, the facility is considered an alternative source of energy.  
4 Therefore, development of the facility is consistent with and furthers this policy.  
5

6           *Air, Land, Water Quality:*  
7

8           1. *Discharges from existing and future developments shall not exceed applicable*  
9           *environmental standards.*  
10

11 The facility would not emit air or water pollution during operation. As discussed in Section IV.D,  
12 *Soil Protection* of this order and as required by Soil Protection Condition 1, the applicant is  
13 required to obtain a NPDES 1200-C permit prior to construction and comply with an ESCP  
14 during construction.  
15

16           7. *Consider cumulative noise impacts and compatibility of future developments,*  
17           *including the adoption of appropriate mitigating requirements of plan updates.*  
18

19 This comprehensive plan objective provision appears to be a directive to the County in its  
20 implementation of its plan. However, to the extent it is construed to be an applicable  
21 substantive criterion for purposes of this application, the applicant addressed noise impacts  
22 and compliance with the DEQ noise rules in ASC Exhibit X. The Council evaluates those impacts  
23 and imposes conditions to comply with the DEQ noise rules in Section IV.R, *Noise Control*  
24 *Regulation*, of this order. As described in that section, the applicant described the noise sources  
25 for the facility and evaluates the expected noise impacts from the facility. The applicant  
26 identified two different NRO mode alternatives to mitigate noise levels, and the Council  
27 imposes conditions to ensure that the facility is operated in an NRO mode that ensures the  
28 facility is consistent with the DEQ noise rules.  
29

30           8. *Recognize that protection of existing wells has priority over development proposals*  
31           *requiring additional subsurface sewage disposal.*  
32

33 The applicant proposed a new on-site septic system in Umatilla County near the O&M building.  
34 The system is evaluated in Section IV.M, *Public Services*, of this order. Public Services Condition  
35 1 requires that during operation of the facility the certificate holder discharge sanitary  
36 wastewater generated at the O&M buildings to licensed on-site septic systems in compliance  
37 with State permit requirements. The Council is not aware of any existing wells in close  
38 proximity to the septic system.  
39

40           *Natural Hazards:*  
41

42           1. *The County will endeavor, through appropriate regulations and cooperation with*  
43           *applicable governmental agencies, to protect life and property from natural hazards and*  
44           *disasters found to exist in Umatilla County.*

1  
2 The applicant explained that the facility is in an area largely free of natural hazards.  
3 Additionally, the applicant noted that the facility components would be subject to setbacks to  
4 public roads and existing structures. Consistent with this policy, the setbacks are intended to  
5 protect life and property even in the event of a catastrophic failure. Additionally, the applicant  
6 represented that the turbines would be located away from known hazard areas, and that the  
7 turbine foundations would be designed and constructed to comply with current building codes  
8 so that they could withstand earthquakes. The applicant addressed seismic and other hazards  
9 in ASC Exhibit H, and the Council’s evaluation is provided in Section IV.C, *Structural Standard*, of  
10 this order.

11  
12 *4. Potentially hazardous major developments (e.g. power plants) must address*  
13 *earthquake hazard possibilities.*

14  
15 As provided above, the applicant addressed seismic hazards in Exhibit H, and the Council’s  
16 evaluation is provided in Section IV.C, *Structural Standard*, of this order. The applicant  
17 explained that it did not identify any known liquefaction, subsidence or landslide risk areas  
18 within the site boundary in Umatilla County. Furthermore the applicant explained that all  
19 foundations would be built to applicable engineering standards for earthquake safety, and all  
20 setbacks from other structures and roads would be observed, reducing the risk that proposed  
21 facility improvements could collapse onto other structures or roads. Structural Standard  
22 Condition 2 requires the certificate holder to design, engineer, and construct the facility in  
23 accordance with the current versions of the latest International Building Code, Oregon  
24 Structural Specialty Code, and building codes as adopted by the State of Oregon at the time of  
25 construction. As discussed in Section IV.C, *Structural Standard* of this order, designing the  
26 facility to the current versions of the latest codes would help ensure that the applicant designs,  
27 engineers, and constructs the proposed facility to avoid dangers to human safety presented by  
28 seismic hazards.

29  
30 *Recreation Needs:*

- 31  
32 *1. Encourage and work with local, state, federal agencies and private enterprise to*  
33 *provide recreational areas and opportunities to citizens and visitors to the County.*

34  
35 The facility is approved to be located on private land and there are no identified recreational  
36 opportunities located within the site boundary. The applicant addressed the potential impact  
37 on recreational opportunities in the analysis area in Exhibit T, and the Council evaluates those  
38 potential impacts in Section IV.L, *Recreation*, of this order.

39  
40 *Economy:*

- 41  
42 *1. Encourage diversification within existing and potential resource-based industries.*  
43

1 As a wind power generation facility, the facility would diversify the county's economy, which is  
2 primarily agriculture based. Additionally, as explained by the applicant and supported by  
3 evidence in Exhibit K, the existing agricultural uses within the site boundary and on surrounding  
4 lands would not be significantly impacted by the proposed facility. Therefore, the facility would  
5 create a benefit for the county's economy rather than a replacement of one economic use for  
6 another.

7  
8 *4. Participate in selected economic development programs and projects applicable to the*  
9 *County desired growth.*

10  
11 Umatilla County has not identified any economic benefit programs or projects that would apply  
12 to the proposed facility. Nonetheless, the facility would generally generate economic growth  
13 and jobs within Umatilla County.

14  
15 *8. Evaluate economic development proposals upon the following: Will the proposal:*  
16 *a. increase or decrease available supplies?*

17  
18 *b. improve or degrade qualities?*

19  
20 *c. balance withdrawal with recharge rates?*

21  
22 *d. be a beneficial use?*

23  
24 *e. have sufficient quantities available to meet needs of the proposed project and other*  
25 *existing and reassembly anticipated needs?*

26  
27 *f. reduce other use opportunities and if so, will the loss be compensated by other equal*  
28 *opportunities?*

29  
30 This policy is related to competing water uses and to a finding in the UCCP that "water  
31 availabilities are a key resource to future economic growth." The applicant did not address  
32 water use in response to this policy in its Exhibit K. However, the applicant did address  
33 expected water use during proposed facility construction and operation in Exhibits O and U.  
34 The Council has addressed facility water use issues in the Public Services (IV.M) and Water  
35 Rights (IV.T) section of this order. As explained in those sections, water used during operation in  
36 Umatilla County would be supplied by a new on-site well and would be limited to no more than  
37 5,000 gallons per day. The applicant indicated that during construction the facility would  
38 require a maximum of 78 million gallons of water under a worst-case scenario for the entire  
39 proposed facility over an 18 month construction period. The applicant indicated that it would  
40 obtain the water from nearby sources with existing water rights and water would be delivered  
41 to the site by trucks. The applicant provided Table O-1 in Exhibit O to demonstrate that  
42 sufficient quantities of water are available from existing water right holders to satisfy facility  
43 construction needs. While the applicant's use of that amount of water during construction  
44 would reduce the amount available to other uses, consistent with the policy, the water would

1 serve a beneficial use and the facility would take advantage of existing water rights for the  
2 temporary construction period.

3  
4 Public Facilities and Services:

5  
6 *1. The county will control land development in a timely, orderly, and efficient manner by*  
7 *requiring that public facilities and services be consistent with established levels of rural*  
8 *needs consistent with the level of service requirements listed on pages J-27 and J-28 of*  
9 *the Technical Report. Those needs are identified as follows:*

10  
11 *a. Fire protection shall be provided consistent with Policies 8,9,10.*

12  
13 Policies 8, 9 and 10 are directives to the County in its plan implementation, and call for the  
14 formation or expansion of rural fire districts in areas designated for non-resource use; the  
15 provision of adequate fire-fighting water supplies for significant new rural developments in  
16 coordination with the appropriate fire district; and assistance by the County in locating satellite  
17 fire stations, respectively. Therefore the policies are not directly applicable to the siting of the  
18 proposed wind power generation facility.

19  
20 To the extent these policies are construed as applicable substantive criteria, the applicant  
21 described in Exhibit U that the facility is proposed in an area served by several fire protection  
22 agencies. If the area within the site boundary is not already covered by an existing fire  
23 department, the applicant indicated that it would work with one or more of the local fire  
24 districts, to extend under contract their coverage to the area(s) in question. During  
25 construction, and particularly during activities that present a potential fire hazard, the applicant  
26 would maintain water trucks on site for rapid response in the event of a fire. The Council has  
27 evaluated the impacts on fire service providers in Section IV.M, *Public Services*, of this order and  
28 imposes conditions of approval to ensure that there would not be a significant impact on the  
29 ability of the fire protection providers to provide fire protection services.

30  
31 The development of the facility would not preclude the use of other portions of the  
32 participating properties for use as the location of a future fire station.

33  
34 *b. Police protection shall be provided consistent with Policy 7.*

35  
36 Policy 7 is directed to the County, and calls for the allocation of county funding to maintain at  
37 least the state average of 0.34 officers per 1,000 people. To the extent it is construed to be  
38 applicable to this application, the applicant indicated that the proposed would have 10 to 15  
39 permanent employees, some of whom may be new residents in Umatilla County. However, the  
40 Council agrees that the addition of a small number of families would not significantly affect the  
41 provision of police services. Additionally, the facility would contribute toward funding of police  
42 services through increased taxes, allowing the County to maintain this minimum level of  
43 service.



1           *c. Surface. Water Drainage-Roadside drainage shall be maintained and plans for*  
2           *drainage shall be required in multiple use areas.*

3  
4           The applicant proposed to improve existing farm roads and build new access roads in Umatilla  
5           County. The applicant indicated that roadside drainage would be maintained on all roads  
6           developed or improved for the county, including at locations where proposed facility access  
7           roads intersect county roads or state highways. The specific requirements for roadside drainage  
8           would be determined through the NPDES permit and the associated ESCP. Soil Protection  
9           Conditions 1 and 2 require the applicant to conduct all work in compliance with a final ESCP,  
10          submitted as part of the NPDES 1200-C permit, and approved by DEQ.

11  
12           *d. Roads shall be maintained or improved to standards adopted by the County Road*  
13           *Department which are consistent with nationally accepted standards that correlate*  
14           *traffic to desired road conditions.*

15  
16          Pursuant to Public Services Conditions 7 and 8, the applicant is required to enter into a Road  
17          Use Agreement with Umatilla County, and the applicant is required to maintain or improve  
18          roads consistent with Umatilla County standards.

19  
20           *2. Require that domestic water and sewage disposal systems for rural areas be provided*  
21           *and maintained at levels appropriate for rural use only. Rural services are not to be*  
22           *developed to support urban uses.*

23  
24          The applicant indicated that water supply and sewage disposal plans for the facility would be  
25          consistent with the rural nature of the site. As discussed above and in detail in Section IV.M,  
26          *Public Services* of this order, once in operation the facility would not have significant water  
27          needs and water for the O&M building in Umatilla County would be provided by an exempt  
28          well. Construction water would be obtained from municipal water suppliers in quantities within  
29          the service capacity of those providers, and hauled to the proposed facility site. Sewage  
30          disposal would be handled by portable toilets during construction, and thereafter by an onsite  
31          septic system. The sources of water and sewer service during both construction and operation  
32          are consistent with development in rural areas, and the facility would not require the extension  
33          of urban level services to the area.

34  
35           *9. Require adequate water supplies for firefighting as part of significant new*  
36           *developments in rural areas in coordination with the appropriate rural fire district.*

37  
38          The applicant discussed the adequacy of fire services in Exhibit U. The Council addresses fire  
39          service in Section IV.M, *Public Services*, of this order, and the Council imposes Public Services  
40          Condition 13, requiring development and implementation of an emergency management plan  
41          that would need to be approved by the department in consultation with the appropriate local  
42          fire protection districts (including the City of Heppner Volunteer Fire Department, Lone Rural  
43          Fire Protection District, and Echo Rural Fire Protection District) prior to construction.

1            *19. Where feasible, all utility lines and facilities shall be located on or adjacent to*  
2            *existing public or private rights-of-way so as to avoid dividing existing farm or forest*  
3            *units; and transmission lines should be located within existing corridors as much as*  
4            *possible.*

5  
6            The applicant indicated that electrical collector lines would be placed adjacent to access roads,  
7            which are routed to avoid dividing existing farm fields and generally follow existing farm access  
8            tracks where feasible. Additionally, pursuant to Land Use Condition 19, collector lines must be  
9            buried a minimum of three feet in agricultural areas to avoid impacts to agricultural activities.  
10           The applicant also indicated that there are no existing transmission corridors in the vicinity of  
11           the facility that could be used to electrically connect Wheatridge East and Wheatridge West.  
12           The applicant indicated that the route was chosen to limit the visibility of the intraconnection  
13           line from major public roads and minimize the lines' visual impact.

14  
15            Transportation:

16  
17            *18. The County will review right-of-way acquisitions and proposals for transmission lines*  
18            *and pipelines so as to minimize adverse impacts on the community.*

19  
20            The applicant does not propose to acquire right-of-way. As the applicant indicated, the  
21            intraconnection transmission line was selected to minimize the visual impacts on the  
22            community.

23  
24            *20. Request larger industrial and commercial development proposals, consider*  
25            *sponsoring carpooling programs.*

26  
27            While the size of the facility is large, it would require 10 to 15 employees in a rural location.  
28            Therefore, there is not a sufficient workforce to justify a formal carpooling program during  
29            operation.

30  
31            Energy Conservation:

32  
33            *1. Encourage rehabilitation /weatherization of older structures and the utilization of*  
34            *locally feasibly renewable energy resources through use of tax and permit incentives.*

35  
36            The applicant does not propose to reuse existing structures.

37  
38            Based on the evaluation provided above and in identified sections of this order, and subject to  
39            compliance with the identified conditions, the Council finds that the facility would be consistent  
40            with the identified UCCP policies.

1                    **Umatilla County Comments**  
2

3        On September 16, 2015, the UBOC issued Order No. BCC2015-075 related to the facility along  
4        with an attached document identified as the UBOC Special Advisory Group Findings (SAG  
5        Findings).<sup>180</sup> Order No. BCC2015-075 was transmitted to the department, along with the  
6        findings and the public record, through a memo from the Chair of the UBOC dated September  
7        16, 2015.<sup>181</sup> In the Order, UBOC finds: 1) the application fails to provide adequate evidence to  
8        comply with Umatilla County and State of Oregon standards, and 2) the application does not  
9        comply with relevant state law standards and should be denied. The applicant responded to  
10       Order No. BCC2015-075 and the SAG Findings through a memorandum prepared by David J.  
11       Petersen dated October 7, 2015.

12  
13       The majority of the UBOC findings are premised on a belief that the applicant is required to  
14       identify and include an interconnection transmission line in its ASC, and that the site certificate  
15       cannot be approved unless an interconnection transmission line is identified and included in the  
16       ASC. The Council finds that the UBOC position related to the interconnection transmission line  
17       is not supported by either state law or the county’s own code.

18  
19                    **Council Statutes and Rules**  
20

21        Before addressing the specific UCDO sections identified in the SAG findings, it is necessary to  
22        consider and understand the applicable Council statutes and rules and how those state laws  
23        shape the role of a SAG in the energy facility siting process. Pursuant to ORS 469.503(4), in  
24        order to issue a site certificate, the Council must determine that “[t]he *facility* complies with  
25        the statewide planning goals adopted by the Land Conservation and Development  
26        Commission.” (Emphasis added). ORS 469.504 describes the options available to the applicant  
27        and the Council for finding that a “proposed facility” complies with the statewide planning  
28        goals. In this case, the applicant has elected to have the Council, rather than the local  
29        governments, make the necessary determination of compliance with the statewide planning  
30        goals under ORS 469.504(1)(b). Under subsection (b) one option is for the Council to determine  
31        that “[t]he *facility* complies with applicable substantive criteria from the affected local  
32        government’s acknowledged comprehensive plan and land use regulations that are required by  
33        the statewide planning goals and in effect on the date the application is submitted...” (Emphasis  
34        added). As indicated in the cited and quoted provisions, the Council’s decision on compliance  
35        with the statewide planning goals is strictly limited to the “facility,” a defined term in the  
36        Council statutes.

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<sup>180</sup> WRWAPPDoc34, SAG Comment UBOC, 09-16-2015.

<sup>181</sup> Order No. BCC2015-075 was the UBOC comment, on the ASC and the version of Exhibit K contained in the ASC. Umatilla County and UBOC were provided a copy of the revised January 2016 Exhibit K. UBOC did not provide a substantive response to the revised exhibit, but in a memo to the department stated that the revised Exhibit K includes much improved findings of compliance with land use, and concluded “[n]otwithstanding the comments previously submitted, Umatilla County has no comments on the Revised Exhibit K.” WRWAPPDoc53, SAG Comment UBOC, 02-17-2016.

1  
2 Pursuant to ORS 469.300(14) “facility” means “an energy facility together with any related or  
3 supporting facilities.” Pursuant to ORS 469.300(24) “related or supporting facilities” means “any  
4 structure, *proposed by the applicant*, to be constructed or substantially modified in connection  
5 with the construction of an energy facility, *including associated transmission lines*, reservoirs,  
6 storage facilities, intake structures, road and rail access, pipelines, barge basins, office or public  
7 buildings, and commercial and industrial structures.”<sup>182</sup> (Emphasis added).  
8 The definition of related or supporting facilities specifically identifies transmission lines.  
9 However, in this case, the applicant has not proposed the interconnection transmission line  
10 necessary to connect the proposed facility to the grid because it would not build, own or  
11 operate the interconnection transmission line. Instead, the applicant represents in Exhibit B  
12 that the proposed facility would be connected to the grid via overhead 230 kV transmission  
13 lines (also referred to as gen-tie lines) that would be permitted, constructed, and owned by  
14 either UEC or UEC in partnership with CBEC. The applicant indicated that BPA would operate  
15 the interconnection lines. The applicant included potential interconnection transmission routes  
16 in the figures included in Exhibit C. However, because the interconnection transmission line is  
17 not proposed by the applicant and because it would not be constructed, owned or operated by  
18 the applicant, the applicant did not propose or evaluate the interconnection transmission line  
19 as a related or supporting facility for purposes of the proposed facility ASC.<sup>183</sup> The Council finds  
20 that the interconnection transmission line is not a related or supporting facility as that term is  
21 defined in ORS 469.300.<sup>184</sup> Therefore, the “facility” that the Council must find complies with the  
22 statewide planning goals under ORS 469.503(4) and with the applicable substantive criteria of  
23 each county under the path selected by the applicant under ORS 469.504(1)(b)(A) does not  
24 include an interconnection transmission line pursuant to the state statutory definition.  
25  
26 UBOC addressed the state statutes and rules in the SAG Findings.<sup>185</sup> While the SAG referenced  
27 the definition of a related or supporting facility at ORS 469.300(14), it does not include or  
28 address the definition in its entirety. Instead, the SAG Findings focus on the ASC requirements

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<sup>182</sup> “Related or supporting facilities” is also defined in the Council rules. Pursuant to OAR 345-001-0010(51), “related or supporting facilities” have the definition provided in ORS 469.300. The definition adds, “[t]he Council interprets the terms ‘proposed to be built in connection with’ as meaning that “a structure is a related or supporting facility if it would not be built but for construction or operation of the energy facility.”

<sup>183</sup> As noted earlier, the applicant argued that the interconnection line is not a “related or supporting facility” for purposes of this site certificate application pursuant to the definition in Council rule at OAR 345-001-0010(51) because the interconnection line may eventually be used by other facilities and therefore, the applicant contends it is not clear if the transmission line “would not be built but for construction or operation of the energy facility.” The department believes the evaluation of potential future users of the interconnection transmission line is too speculative, and therefore recommends that the Council find that the interconnection transmission line is not a related or supporting facility for purposes of this ASC under the statutory definition alone.

<sup>184</sup> The Council evaluated the interconnection line as a third party permit under the Organizational Expertise standard (Section IV.B of this final order) because the Council would ordinarily determine compliance if the applicant, rather than a third party, were seeking the necessary permits and approvals to build, own and operate the interconnection line.

<sup>185</sup> WRWAPPDoc34, SAG Comment UBOC, 09-16-2015, pp. 4-5 of the SAG Findings.

1 at OAR 345-021-010(1)(c),<sup>186</sup> which requires an applicant for a site certificate to provide a map  
2 showing “the proposed locations of the energy facility site, all related or supporting facility  
3 sites, and all areas that might be temporarily disturbed during construction...” As discussed  
4 above, the applicant does not propose to build, own or operate the interconnection  
5 transmission line, and therefore, it is not a related or supporting facility for this ASC.  
6 Furthermore, the applicant did include conceptual alignments for the UEC/CBEC  
7 interconnection transmission line.

### 8 9 Umatilla County Applicable Substantive Criteria

10  
11 When UBOC identified the list of applicable substantive criteria for the proposed facility, it  
12 included “UCDO 152.616(HHH) Conditional Use Criteria for commercial wind energy generation  
13 facilities.” The county did not identify any specific subsection(s) of 152.616(HHH). UCDO  
14 152.616(1) is titled “County Permit Procedure” and states, in part, “[t]he County procedural  
15 requirements set forth in Section 152.616(HHH)(1)-(5), including the requirements for a  
16 hearing, will not apply to proposed Wind Power Generation facilities for which Energy Facility  
17 Siting Council is making the land use decision.” In this case, the Council is making the land use  
18 decision, and therefore, under the plain language of UCDO 152.626(HHH)(1), the procedural  
19 requirements of 152.616(HHH)(5) do not apply to this proposed facility.

20  
21 In the SAG Findings, UBOC concluded that the proposed facility did not satisfy the following five  
22 specific UCDO sections: UCDO 152.616(HHH)(5)(b) and (c)(3), 152.616(HHH)(5)(d)(1), and  
23 152.616(HHH)(5)(h). The County’s position on each of the UCDO sections is addressed  
24 separately below.<sup>187,188</sup> The SAG Findings also commented on the mention of a variance in the  
25 application and the length of time a conditional use is valid under UCDO 152.613(D).

#### 26 27 1. UCDO 152.616(HHH)(5)(b) and (c)(3)

28  
29 UCDO 152.616(HHH)(5) is titled “Application Requirements” and the introduction states, “[t]he  
30 following information shall be provided as part of the application, or subject to the County’s  
31 discretionary authority, be required prior to the construction or operation of the Wind Power  
32 Generation Facility through a condition of approval.”<sup>189</sup>

33  
34 UCDO 152.616(HHH)(5)(b) and (5)(c)(3) include “a map showing the location of components”  
35 and “route and plan for transmission facilities connecting the project to the grid” as items that

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<sup>186</sup> The cite in the SAG Findings portion of WRWAPPDoc34, SAG Comment UBOC, 09-16-2015 is to OAR 345-021-00110(1)(c). However, that rule does not exist and the quote language is from OAR 345-021-0010(1)(c).

<sup>187</sup> The applicable UCDO sections are also addressed in the general UCDO section above.

<sup>188</sup> On the record of the public hearing, the Umatilla County Planning department, on behalf of Umatilla Board of County Commissioners, disagreed with the legal interpretation in the draft proposed order related to the grid-interconnection transmission line and the applicability of UCDO. WRWAPPDoc118 DPO SAG Comment (UBOC) 2016-06-06.

<sup>189</sup> The application requirements of UCDO 152.616(HHH)(5) are addressed in the UCDO section above.

1 must be provided in an application to the county. The SAG Findings state that the Wheatridge  
2 ASC fails to comply with these requirements, and therefore, “the application fails to provide  
3 adequate evidence to demonstrate compliance with UCDO 152.616(5)(d)(1).”<sup>190</sup> This position is  
4 not supported by either the state law provisions discussed above or the UCDO itself. First,  
5 under ORS 469.504(1)(b), the Council must determine that the proposed “facility” complies  
6 with applicable substantive criteria. As discussed above, under the statutory definition the  
7 facility proposed in this case does not include an interconnection transmission line as a related  
8 or supporting facility. Therefore, to the extent the local code provisions require information  
9 related to an interconnection transmission line, they are not properly considered applicable  
10 substantive criteria for purposes of the Council’s decision on facility compliance. The local code  
11 language cannot alter the Council’s statutory requirement.

12  
13 Second, application requirements are generally procedural rather than substantive. Therefore,  
14 pursuant to UCDO 152.616(HHH)(1), the application requirements of 152.616(HHH)(5) would  
15 seemingly not be applicable to this Council jurisdictional facility. The SAG Findings state that the  
16 map and route/plan application requirements are substantive criteria because they would  
17 “have a meaningful impact on the decision to approve or deny the proposal.” The Council finds  
18 that the facility, exclusive of the interconnection transmission line, complies with applicable  
19 substantive criteria. Therefore, the Council finds that the location of the interconnection  
20 transmission line would not have a meaningful impact on the Council’s decision.

21  
22 Third, even if the Council considered UCDO 152.616(HHH)(5) to include applicable substantive  
23 criteria for this application, the requirements either have been satisfied or would be satisfied  
24 through a condition of approval. As discussed in the UCDO section above, the applicant  
25 provided a map of the proposed facility components in figures included in Exhibit C. Those  
26 maps include conceptual interconnection transmission line routes. A plan for transmission  
27 facilities is addressed in Exhibits B and C. Finally, because the interconnection transmission line  
28 routes are conceptual and because a third party would obtain necessary permits to construct  
29 and operate the transmission line the Council imposed Organizational Expertise Condition 8  
30 which would require the applicant to provide proof that all necessary permits have been issued  
31 to the transmission line developer before beginning construction of the wind energy facility. As  
32 the land use decision maker for this facility, the Council has the same authority as the county  
33 would for requiring submittal of 152.616(HHH)(5) application information prior to construction  
34 through a condition of approval.<sup>191</sup> The Council has imposed a condition requiring that the final  
35 route and plan for connecting the facility to the grid be identified, and that the applicant  
36 provide evidence that the third party that is developing the interconnection transmission line  
37 has obtained all necessary permits and approval to construct the transmission line.

38  
39

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<sup>190</sup> WRWAPPDoc34, SAG Comment UBOC, 09-16-2015, p. 2 of the SAG Findings.

<sup>191</sup> The SAG Findings in WRWAPPDoc34, SAG Comment UBOC 09-16-2015, assert that SAG standards may not be deferred or otherwise conditioned to occur at a later date. However, the Findings do not acknowledge the express authority for the decision maker to do exactly that for application requirements included in 152.616(HHH)(5).

1     2.     UCDO 152.616(HHH)(5)(d)(1)

2  
3     UCDO 152.616(HHH)(5)(d)(1) provides that an application for a wind power generation facility  
4     must demonstrate compliance with UCDO 152.061,<sup>192</sup> which contains the general conditional  
5     use standards for all uses in an EFU zone. The UCDO 512.061 standards are applicable  
6     substantive criteria, and therefore, both the applicant and the department recognized the  
7     applications requirements of UCDO 152.616(HHH)(5)(d)(1) as an applicable substantive criteria.  
8     Both UCDO 152.616(HHH)(5)(d)(1) and 152.061 are addressed in the UCDO section above.

9  
10    In the SAG Findings, the County challenges the sufficiency of the applicant’s evaluation of the  
11    UCDO 152.061 standards on multiple grounds. First, the SAG Findings contend that the  
12    application fails to address the impacts of the interconnection transmission line, and most of  
13    the comments are focused on the anticipated impacts of an interconnection transmission line  
14    on surrounding farm practices and farm uses. However, for the reasons identified above, the  
15    interconnection transmission line is not proposed by the applicant and therefore, is not part of  
16    the facility that the Council must directly evaluate in this ASC process under ORS 469.504 or the  
17    Council’s Land Use Standard. Moreover, as discussed above, the Council has historically and  
18    consistently evaluated transmission lines associated with generation facilities as “utility  
19    facilities necessary for public service,” a use category permitted on EFU land pursuant to ORS  
20    215.283(1)(c) subject only to either ORS 215.275 or 215.274 depending on the type of line.  
21    Therefore, even if the applicant were proposing the interconnection transmission line for the  
22    proposed wind energy generation facility as part of its ASC, the conditional use standards at  
23    UCDO 152.061 and the corresponding application requirements at UCDO 152.616(HHH)(5)(d)(1)  
24    would not apply to the interconnection transmission line.

25  
26    To the extent the SAG Findings relate to the sufficiency of the evidence of the wind energy  
27    generation facility impacts on surrounding farm practices, after issuance of Ordinance  
28    BCC2015-075 and the SAG Findings, the applicant submitted a more detailed identification of  
29    the surrounding farm practices and evaluation of the impacts of the proposed wind energy  
30    generation facility use on those practices in the revised Exhibit K and associated attachments.  
31    The applicant specifically identified and addressed farming practices that the SAG Findings  
32    raised concerns about, including irrigation, aerial spraying, field preparation, and equipment  
33    use. While Umatilla County did not provide substantive comments on the revised Exhibit K, it  
34    did state in a February 17, 2016 memorandum that “[t]he revised Exhibit K includes much  
35    improved findings of compliance with land use.”

36  
37    3.     UCDO 152.616(HHH)(5)(h)

38  
39    UCDO requires the development of an Emergency Management Plan for all phases of the  
40    facility. Emergency management issues are discussed substantively in Section IV.M, *Public*  
41    *Services* of this final order, and the Council requires as a condition of approval (Public Services

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<sup>192</sup> The conditional use standards at UCDO 152.061 are identical to the standards for approval required for conditional uses in an EFU zone statewide at ORS 215.296.

1 Condition 13) the development of an Emergency Management Plan in consultation with the  
2 City of Heppner Volunteer Fire Department, Lone Rural Fire Protection District, and Echo Rural  
3 Fire Protection District.

4  
5 The SAG Findings, however, raise a specific concern about the fact that the letters from the fire  
6 protection providers that would serve the proposed facility indicated that they do not have the  
7 ability to perform either high angle or confined space rescue.<sup>193</sup> Based upon those  
8 representations, the SAG Findings state that the ASC fails to comply with UCDO  
9 152.616(HHH)(5)(h) concerning an Emergency Management Plan for fire hazards for the wind  
10 energy generation facility.<sup>194</sup> However, UCDO 152.616(HHH)(5)(h)(1) addresses fire district  
11 responsibilities and states, “[t]he plan shall verify the fire district and/or contract fire  
12 department responsible for providing emergency services. *High rise rescue is the responsibility*  
13 *of the Wind Power Generation Facility owner/operator with local emergency responders*  
14 *providing ground level assistance.”* (Emphasis added). Therefore, the response from the fire  
15 providers that they cannot perform high angle rescues is consistent with UCDO  
16 152.616(HHH)(5)(h).

17  
18 The Council agrees with the county that adequate emergency planning is a critical component  
19 of energy facility siting, including ensuring adequate fire safety and emergency response.  
20 Therefore, Public Services Conditions 14 and 15 require the certificate holder to ensure that  
21 turbine construction personnel and operations personnel are trained and equipped for fall  
22 protection, high angle, and confined space rescue.

#### 23 24 4. UCDO 152.613(D)

25  
26 The SAG Findings state that there is a discrepancy between the timing for construction of the  
27 proposed facility and the time limitation on “utility related conditional use permits” under  
28 UCDO 152.613(D).<sup>195</sup> The comment is misplaced for two reasons. First, even if there would be a  
29 discrepancy at all, it is not as great as represented. The SAG Findings state that the applicant is  
30 seeking a site certificate that spans six years “in order to await interconnection to be worked  
31 out and established to serve the project.” However, pursuant to General Standard Condition 1,  
32 the applicant would be required to begin construction within three years after issuance of the  
33 site certificate. Pursuant to Organizational Expertise Condition 8, the applicant is required to  
34 provide evidence that the developer of the interconnection transmission line has obtained all  
35 necessary permits and approval for that line prior to beginning construction on the wind energy  
36 facility. Additionally, the applicant would not be able to obtain the conditional use permit from  
37 Umatilla County until after the site certificate is issued, but would be required to obtain it  
38 before beginning development. The applicant could conceivably obtain the conditional use  
39 permit from the county less than two years prior to beginning construction.

40

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<sup>193</sup> WRWAPPDoc34, SAG Comment UBOC, 09-16-2015, p. 19 of SAG Findings.

<sup>194</sup> Id.

<sup>195</sup> WRWAPPDoc34, SAG Comment UBOC, 09-16-2015, p. 20 of SAG Findings.



1 Second, UBOC did not identify UCDO 152.613 as an applicable substantive criterion. Even if it  
2 had, the timing provision is a procedural requirement rather than a substantive criteria.  
3 Therefore, the construction beginning and completion conditions apply in place of any local  
4 code provisions related to timing. UBOC did not directly comment on the sufficiency of the  
5 construction beginning or completion deadlines proposed by the applicant independent of the  
6 inapplicable UCDO provision.

7  
8 5. Variance

9  
10 The SAG Findings take issue with the fact that the applicant requested a variance or a goal  
11 exception to the extent the proposed facility cannot comply with an applicable substantive  
12 criterion.<sup>196</sup> The applicant has since clarified that it is not seeking a variance from either  
13 Morrow County or Umatilla County and the statement was removed from the revised Exhibit K.

14  
15 Other State Statutes and Rules

16  
17 The SAG Findings identify several other state statutes and rules the county seemingly believes  
18 are applicable. However, as provided below, the cited provisions are not applicable to this site  
19 certificate application.

20  
21 1. Goal 3 Exception

22  
23 The SAG Findings incorrectly state that the wind energy generation facility requires a Goal 3  
24 exception under OAR 660-033-0130(17). However, as discussed in the Morrow County section  
25 above, and provided in the OAR 660-033-0120 Table, the 12/20 acre rule included in OAR 660-  
26 033-0130(17) applies to “Commercial utility facilities for the purpose of generating power for  
27 public use by sale, *not including wind power generation facilities* or photovoltaic solar power  
28 generation facilities.” (Emphasis added). Therefore, OAR 660-033-0130(17) does not apply to  
29 the wind power generation facility and the applicant is not requesting an exception to Goal 3 in  
30 Umatilla County.<sup>197</sup>

31  
32 2. ORS 215.275

33  
34 The SAG Findings state that there is no showing that the transmission facilities associated with  
35 the proposed facility satisfy ORS 215.275. To the extent the county is referring to the  
36 interconnection transmission line, as discussed at length above, the interconnection  
37 transmission line is not proposed to be built, owned or operated by the applicant and is  
38 therefore not part of the facility for purposes of the Council’s land use decision. To the extent  
39 the comment is intended to apply to the intraconnection transmission line, the applicant

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<sup>196</sup> WRWAPPDoc34, SAG Comment UBOC, 09-16-2015, pp. 20-21 of SAG Finding.

<sup>197</sup> As discussed in the Morrow County section above, the applicant originally requested an exception to Goal 3 for the portion of the wind energy generation facility in Morrow County. However, the Council finds that a Goal exception is not needed due to the direct conflict between the Morrow County code and the LCDC rule.

1 addresses ORS 215.275 in the revised Exhibit K and the Council addresses ORS 215.275 for the  
2 intraconnection line in its entirety below.<sup>198</sup>

3  
4 The SAG Findings specifically raised concerns about the potential impacts of a transmission  
5 facility on accepted farming practices, including use of farm equipment, aerial spraying, and  
6 irrigation.<sup>199</sup> Each of those concerns were addressed by the applicant in Exhibit K-1 and are  
7 addressed for the intraconnection transmission line in the ORS 215.275 section below.

8

9 3. ORS 215.283(1)(u)

10

11 The SAG Findings indicate that the interconnection transmission line should either be  
12 considered a utility facility necessary for public service under ORS 215.283(1)(c) or a “utility  
13 facility service line” under ORS 215.283(1)(u).<sup>200</sup> The Council understands that the third party  
14 that would develop, own and operate the interconnection transmission line would seek  
15 approvals for the transmission line as a utility facility necessary for public service under ORS  
16 215.283(1)(c). It does not appear that the interconnection line would qualify as a “utility facility  
17 service line” as that term is defined because it would connect the wind energy facility to the  
18 electric grid, not deliver electric service to a customer.

19

20 4. ORS 215.283(2)(g)/ORS 215.296

21

22 ORS 215.283 does not apply directly to the facility. Nonetheless, the wind energy facility has  
23 been identified as a type of commercial utility facility for the purpose of generating power for  
24 sale by public use, and is considered a conditional use under the acknowledged UCDO. The  
25 Umatilla County conditional use standards required under UCDO 152.061 are identical to the  
26 conditional use standards included in ORS 215.296. The UCDO 152.061 standards are addressed  
27 in Exhibit K and are evaluated above.

28

29 However, as discussed throughout this section, transmission lines are considered a utility  
30 facility necessary for public service, a permitted use under ORS 215.283(1)(c), rather than a  
31 generating facility under ORS 215.283(2)(g). Therefore, the Council evaluated the  
32 intraconnection transmission line as a utility facility necessary for public services subject only to  
33 the ORS 215.275 provisions for purposes of this ASC. As discussed in Section IV.B,  
34 *Organizational Expertise* of this final order, the Council understands that the interconnection

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<sup>198</sup>The SAG Findings in WRWAPPDoc34, SAG Comment UBOC 09-16-2015, include the following statement in reference to ORS 215.275: “[t]his reasonably should mean that it include that there are no existing available alternative transmission facilities or corridors with fewer agricultural impacts.” This interpretation of the showing required under ORS 215.275 for a utility facility necessary for public service is in direct conflict with LUBA’s interpretation of what is required under ORS 215.275 set forth in *WKN Chopin, LLC vs. Umatilla County*, 66 Or LUBA 1, 11 (2012) (finding that ORS 215.275(2) requires consideration of alternative to siting the proposed facility in an EFU zone, and that ORS 215.275 “simply does not require that an applicant proceed through additional inquiries that are designed to minimize impacts on EFU-zoned land, where non-EFU-zoned alternatives are not available”).

<sup>199</sup> WRWAPPDoc34, SAG Comment UBOC, 09-16-2015, pp. 7-12 in SAG Findings.

<sup>200</sup> WRWAPPDoc34, SAG Comment UBOC, 09-16-2015, p. 13 in SAG Findings.

1 transmission line would also be considered a utility facility necessary for public service rather  
2 than a generating facility, and as such would not be subject to the ORS 215.296 conditional use  
3 standards or the county equivalent.

4

### 5 **IV.E.3 Applicable State Statutes and Rules**

6

#### 7 **ORS 215.275 – Utility Facilities Necessary for Public Service**

8

9 As discussed above and described in ASC Exhibit B, the applicant would develop an  
10 intraconnection transmission line or lines to connect Wheatridge East to Wheatridge West. The  
11 intraconnection line(s) would be either single or double circuit 230 kV transmission lines  
12 running between a substation in each area. If the intraconnection line is single circuit, the  
13 applicant would construct one set of transmission line structures, either H-frame or monopole.  
14 If a two circuit intraconnection line is needed, the applicant requested approval for either one  
15 set of transmission line monopole structures carrying both circuits, or two sets of parallel  
16 transmission line monopole structures each carrying one circuit. The applicant represented that  
17 the intraconnection lines would be designed to maintain conductor to ground clearance of 30  
18 feet and that the structures would typically be 60 feet tall and spaced approximately 400 to 800  
19 feet apart. The applicant requested approval for four different intraconnection route options,  
20 and indicated that the final intraconnection line route and configuration would be selected  
21 based upon the point of connection with the BPA grid. While the four routes are similar, they  
22 vary in length depending on the substation connection and would be 24.5 miles under the  
23 shortest option and 31.5 miles under the longest option.<sup>201</sup> Based upon the maps provided by  
24 the applicant, the intraconnection line would be located in both Morrow County and Umatilla  
25 County and exclusively on EFU zoned land regardless of which route is selected.

26

27 Consistent with past Council decisions, the Council evaluates the intraconnection transmission  
28 line as a “utility facility necessary for public service,” a use permitted in EFU zoned land  
29 pursuant to ORS 215.283(c) subject to compliance with ORS 215.275.<sup>202</sup> As provided below, ORS  
30 215.275 includes a list of factors for determining whether the utility facility is necessary for  
31 public service and includes standards related to mitigating the impact of the utility on farm uses  
32 and farm land.

33

34 *ORS 215.275 Utility facilities necessary for public service; criteria; rules; mitigating*  
35 *impact of facility.*

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<sup>201</sup> ASC, Exhibit B, pp. 8-9.

<sup>202</sup> Pursuant to ORS 215.283(c) and ORS 215.274, if the utility facility is an “associated transmission line,” the decision maker must determine that it is necessary for public service by applying the factors provided in ORS 215.274 rather than ORS 215.275. The applicant asserted that the intraconnection transmission line does not meet the definition of an “associated transmission line” at ORS 215.274 and 469.300. The department agreed, and the Council concurs, with that assessment. However, in the event the Council were to find that ORS 215.274 applied instead of ORS 215.275, the applicant addressed the ORS 215.274 factors in Exhibit K in the alternative. ASC, Exhibit K, p. 8.

1           (1) A utility facility established under ORS 215.213 (1)(c)(A) or 215.283 (1)(c)(A) is  
2           necessary for public service if the facility must be sited in an exclusive farm use zone in  
3           order to provide the service.

4           (2) To demonstrate that a utility facility is necessary, an applicant for approval under  
5           ORS 215.213 (1)(c)(A) or 215.283 (1)(c)(A) must show that reasonable alternatives have  
6           been considered and that the facility must be sited in an exclusive farm use zone due to  
7           one or more of the following factors:

8                   (a) Technical and engineering feasibility;

9                   (b) The proposed facility is locationally dependent. A utility facility is locationally  
10                  dependent if it must cross land in one or more areas zoned for exclusive farm use  
11                  in order to achieve a reasonably direct route or to meet unique geographical  
12                  needs that cannot be satisfied on other lands;

13                  (c) Lack of available urban and nonresource lands;

14                  (d) Availability of existing rights of way;

15                  (e) Public health and safety; and

16                  (f) Other requirements of state or federal agencies.

17  
18           The applicant addressed the factors for determining that a facility must be sited in an EFU zone  
19           and contended that the intraconnection transmission line satisfies four of the six factors, and  
20           included the following analysis in ASC Exhibit K.<sup>203</sup>

- 21  
22           **1. Technical and engineering feasibility:** The applicant states that an intraconnection  
23           line is required to connect the two parts of the proposed facility site, and that there  
24           is not a feasible alternative that would both connect the two parts of the proposed  
25           facility and allow for grid interconnection via only one interconnection line.
- 26           **2. The proposed facility is locationally dependent:** A utility facility is locationally  
27           dependent if it must cross land in one or more areas zoned for exclusive farm use in  
28           order to achieve a reasonably direct route or to meet a unique geographical need  
29           that cannot be satisfied on other lands. The applicant explains that there is no route  
30           between the two parts of the proposed facility that would achieve a reasonably direct  
31           route while not impacting EFU land. Any alternative routing would be circuitous and  
32           cost-prohibitive.
- 33           **3. Lack of available urban or nonresource lands:** The applicant states that there are no  
34           available urban and non-resource lands that would provide for a reasonably direct  
35           route for the proposed intraconnection transmission line while connecting the two  
36           parts of the proposed facility.
- 37           **4. Availability of existing rights-of-way:** The applicant explains that there are no  
38           available existing rights-of-way on the surface that would provide for a reasonably  
39           direct route for the proposed intraconnection transmission line. As stated in Exhibit  
40           K, even short segments of public road right-of-way are not suitable for the  
41           intraconnection line, as such rights-of-way are between 60 and 100 feet wide, while  
42           the intraconnection line requires 150 feet. There is one gas pipeline that runs

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<sup>203</sup> ASC, Exhibit K, pp. 7-8.

1 through the region; it runs northeast-southwest and crosses through the northern  
2 end of Wheatridge West. However, it does not run through or near Wheatridge East  
3 so is not advantageous to follow due to the circuitous route it would necessitate.  
4

5 The alternatives analysis required under the county codes and corresponding statutory  
6 provision does not require that the applicant evaluate all alternative EFU-zoned routes on  
7 which the proposed use could be located. Rather, the applicant must consider reasonable  
8 alternatives and show that the proposed facility must be sited on EFU zoned land in order to  
9 provide the service, which in this case is transmission service between Wheatridge East and  
10 Wheatridge West. As stated in Exhibit K, non-EFU locations are not available for the proposed  
11 use. Wheatridge East and Wheatridge West would both be located on EFU zoned lands and are  
12 predominantly surrounded by EFU zoned lands. It is not possible to transfer the generated  
13 electricity via transmission line from the eastern group of turbines to the western group of  
14 turbines without crossing EFU-zoned land. Fundamentally, the intraconnection transmission is  
15 locationally dependent because "it must cross land in one or more areas zoned for exclusive  
16 farm use in order to achieve a reasonable direct route."  
17

18 Because of the necessity to cross EFU zoned land, in addition to the analysis provided for the  
19 other factors which provide additional support and justification for the intraconnection route,  
20 the Council finds that the intraconnection transmission line is necessary for public service  
21 pursuant to the factors set forth in ORS 215.275(2).  
22

23 *(3) Costs associated with any of the factors listed in subsection (2) of this section may be*  
24 *considered, but cost alone may not be the only consideration in determining that a utility*  
25 *facility is necessary for public service. Land costs shall not be included when considering*  
26 *alternative locations for substantially similar utility facilities. The Land Conservation and*  
27 *Development Commission shall determine by rule how land costs may be considered*  
28 *when evaluating the siting of utility facilities that are not substantially similar.*  
29

30 As provided above, the intraconnection transmission line is locationally dependent because it  
31 must cross EFU zoned land in order to connect Wheatridge East to Wheatridge West.  
32 Therefore, the Council finds that cost alone is not the only, or even primary, consideration in  
33 determining that the intraconnection line is necessary for public service under ORS 215.275(3).  
34

35 *(4) The owner of a utility facility approved under ORS 215.213 (1)(c)(A) or 215.283*  
36 *(1)(c)(A) shall be responsible for restoring, as nearly as possible, to its former condition*  
37 *any agricultural land and associated improvements that are damaged or otherwise*  
38 *disturbed by the siting, maintenance, repair or reconstruction of the facility. Nothing in*  
39 *this section shall prevent the owner of the utility facility from requiring a bond or other*  
40 *security from a contractor or otherwise imposing on a contractor the responsibility for*  
41 *restoration.*  
42

43 The applicant would be responsible for all areas temporarily disturbed during construction,  
44 maintenance or repair of the facility, including the intraconnection transmission line(s). The

1 applicant has submitted a draft concept of a revegetation plan as attachment P-2 to Exhibit P.  
2 Pursuant to Fish and Wildlife Condition 11, the applicant would be required to receive final  
3 approval of the Revegetation Plan from the department, in consultation with both Morrow and  
4 Umatilla counties, before beginning construction. The applicant would also be required to  
5 implement the approved plan during all phases of facility construction and operation.  
6 Additionally, Land Use Condition 10 would specifically require the applicant to restore areas  
7 temporarily disturbed during facility maintenance or repair. These two conditions apply to the  
8 whole facility, which includes the intraconnection transmission line as a related or supporting  
9 facility.

10  
11 Based upon the evaluation provided above, and subject to compliance with the referenced  
12 conditions, the Council finds that the facility would satisfy the restoration requirements of ORS  
13 215.275(4).

14  
15 *(5) The governing body of the county or its designee shall impose clear and objective*  
16 *conditions on an application for utility facility siting under ORS 215.213 (1)(c)(A) or*  
17 *215.283 (1)(c)(A) to mitigate and minimize the impacts of the proposed facility, if any, on*  
18 *surrounding lands devoted to farm use in order to prevent a significant change in*  
19 *accepted farm practices or a significant increase in the cost of farm practices on the*  
20 *surrounding farmlands.*

21  
22 The applicant identified the lands surrounding the intraconnection transmission line that are  
23 devoted to farm use in Attachment K-1 in the revised Exhibit K and the associated figures. The  
24 applicant also identified accepted farm practices on those lands. The applicant specifically  
25 identified the use of farming equipment within and around the intraconnection transmission  
26 line, and noted that there would be very few restrictions on the normal use of farm equipment  
27 within the intraconnection line right-of-way. The only referenced exception would be a  
28 prohibition on the use of farm equipment that would extend higher than 15 feet directly  
29 beneath the intraconnection line.<sup>204</sup> The Council agrees with the applicant that this limitation  
30 on the extension of farm equipment within the right-of-way would not cause a significant  
31 change or significantly increase the cost of farm practices on lands surrounding the right-of-  
32 way.

33  
34 The applicant also identified aerial spraying as an accepted farming practice in the area. While  
35 noting that the presence of transmission lines can increase the risk and difficulty of aerial  
36 spraying, the applicant provided a detailed analysis of why the impacts would not cause a  
37 significant change in or a significant increase in the cost of aerial spraying.

38  
39 The applicant identified two farms that irrigate land as an accepted farming practice that would  
40 be crossed by the transmission line.<sup>205</sup> The applicant indicated that the intraconnection

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<sup>204</sup> ASC, Exhibit K, Attachment K-1, p. 7.

<sup>205</sup> Id., pp. 7-8.

1 transmission line would cross a small farm located along Little Butter Creek. However, the  
2 applicant indicated that the line would span across the farm with no direct impact to the  
3 irrigated land or impact to the irrigation system. According to the applicant, the intraconnection  
4 transmission line would also cross a small area of irrigated land along Butter Creek.<sup>206</sup> In that  
5 case, the applicant represented that the intraconnection line would pass between two small  
6 center-pivot half circles, and would pose no limitations for the continued use of the irrigation  
7 equipment. The applicant represented that as part of final engineering design and construction,  
8 all irrigation systems and other facilities that that may be subject to induced voltage or current  
9 effects would be identified and properly grounded to eliminate the potential for nuisance shock  
10 and the potential for damages to the system that could be caused by induced voltage or  
11 current. In order to ensure that the irrigation systems and other facilities that could be  
12 impacted by the intraconnection transmission lines are identified and properly grounded, the  
13 Council adopts, as amended, Siting Standard Condition 1 as presented in Section IV.Q., *Siting*  
14 *Standards for Transmission Lines* of this final order.<sup>207</sup>  
15

16 On the record of the public hearing, W. & L. Seitz and T. Lindsay (commenters) raised issues  
17 regarding the proposed facility's potential impacts to accepted farming practices, specifically  
18 aerial application and irrigation.<sup>208</sup> These commenters stated that the proposed facility would  
19 significantly impact the ability to provide and the cost of aerial spraying due to 1) declined  
20 service or 2) increased fuel cost due to changes in flight pattern to go over and around the  
21 towers. These commenters also raised concern that the "project" does not meet statutory  
22 requirements and sited ORS 215.275(5) and ORS 215.283.<sup>209</sup> However, for the purpose of the  
23 proposed facility, only the proposed intraconnection transmission line is subject to ORS  
24 215.275. Commenters did not specifically address the proposed intraconnection transmission  
25 line, nor did they provide any evidence or testimony to suggest that the proposed  
26 intraconnection transmission line would have any impact on aerial spraying or irrigation.  
27 Therefore, this order addresses commenters claims related to impacts on established farming  
28 practices in the findings related MCZO 6.025 and UCDO 152.061 provided in Section IV.E of this  
29 final order.  
30

31 The Council also adopts Land Use Conditions 6, 8, 11, 12, and 21 to reduce the impact of the  
32 facility on surrounding farm practices. These conditions apply to the entire facility, but include  
33 clear and objective conditions that would minimize and mitigate the impacts of the  
34 intraconnection transmission line on surrounding lands devoted to farm use.

---

<sup>206</sup> Id.

<sup>207</sup> In the draft proposed order, recommended Land Use Condition 29 stated, "Prior to operation of the intraconnection transmission line, the certificate holder shall identify and properly ground all irrigation systems and other facilities that could be impacted by induced voltage or current." Due to redundancy in requirements, recommended Land Use Condition 29 was incorporated into recommended Siting Standard Condition 1 and deleted from the proposed order.

<sup>208</sup> WRWAPPDoc86 DPO Public Comment\_W. Seitz 2016-06-03; WRWAPPDoc115 DPO Public Comment\_T. Lindsay 2016-06-06.

<sup>209</sup> Commenters also cite ORS 215.213; however, this statute applies to counties that adopted marginal lands system prior to 1993 and would not apply to the intraconnection transmission line.

1  
2 Based on the evaluation provided above and in Exhibit K-1, and subject to compliance with the  
3 specified conditions of approval, the Council finds that the condition requirements of ORS  
4 215.275(5) have been satisfied for the intraconnection transmission line.

5  
6 **OAR 660-033-0130(37) – Wind Power Generation Facility Minimum Standards**

7  
8 As relevant to the wind facility, OAR 660-033-0130(37) provides that:

9  
10 *\* \* \* A proposal for a wind power generation facility shall be subject to the following*  
11 *provisions:*

12  
13 *(a) For high-value farmland soils described at OAR 195.300(1), the governing body or its*  
14 *designate must find that all of the following are satisfied:*

15 *A. Reasonable alternative have been considered to show that siting the wind*  
16 *power generation facility or component thereof on high-value farmland*  
17 *soils is necessary for the facility or component to function properly or if a*  
18 *road system or turbine string must be placed on such soils to achieve a*  
19 *reasonably direct route considering the following factors:*

- 20 *(i) Technical and engineering feasibility;*  
21 *(ii) Availability of existing rights of way; and*  
22 *(iii) The long term environmental economic, social and energy*  
23 *consequences of siting the facility of component on alternative*  
24 *sites, as determined under paragraph (B);*

25  
26 OAR 660-033-0130(37)(a)(A) requires the applicant to consider “reasonable alternatives” to  
27 locating the facility, or components of the facility, on high-value farmland. The applicant must  
28 “show that siting the wind power generation facility or component thereof on high-value  
29 farmland soils is necessary for the facility or component to function properly.” In the case of  
30 access roads and turbine strings, the applicant must show that these components must be  
31 placed on high-value farmland soils “to achieve a reasonably direct route.” To demonstrate the  
32 necessity of using high-value farmland for the facility to “function properly” or for a road or  
33 turbine string to “achieve a reasonably direct route,” the applicant must consider technical and  
34 engineering feasibility and the availability of existing rights-of-way. The applicant must also  
35 consider the long term environmental, economic, social and energy consequences of siting the  
36 facility or component on alternative sites, as determined under OAR 660-033-0130(37)(a)(B),  
37 discussed below.

38  
39 **i. Technical and Engineering Feasibility**

40  
41 As depicted on Table 2 of Attachment K-1, approximately 25% of the site boundary contains  
42 HVF, as defined in ORS 195.300(1). Of the total 3,259 acres of HVF within the site boundary,  
43 approximately 2,705 acres are located in Morrow County and 565 acres in Umatilla County.  
44 Outside the site boundary, but within the analysis area, approximately 27% of the farmland is



1 defined as high-value. When constructed, the facility would cause permanent impacts to HVF to  
2 no more than a total of 29.1 acres in Morrow County and 9.0 acres in Umatilla County. The  
3 majority of the permanent impacts (86%) would be from access roads, constructed or improved  
4 to access wind turbines and met tower sites. 12.4% would be from the turbine footprints, and  
5 the remainder would be from substations (1.2%), met towers (.02%) and the intraconnection  
6 transmission line(s) (0.1%).  
7

8 The Council has previously considered technical and engineering feasibility in light of the state's  
9 Energy Conservation Goal (Statewide Planning Goal 13) and has found that a "reasonable  
10 alternative" must enable the wind facility to make efficient use of a comparable wind resource,  
11 compared to the proposed location that affects HVF soils.<sup>210</sup> The Planning Guidelines for Goal  
12 13 provide that "priority consideration in land use planning should be given to methods of  
13 analysis and implementation measures that would assure achievement of maximum efficiency  
14 in energy utilization" and "the allocation of land and uses permitted on the land should seek to  
15 minimize the depletion of non-renewable sources of energy."<sup>211</sup> The Planning Guidelines direct  
16 that land conservation and development actions should "utilize renewable energy sources,"  
17 including wind, "whenever possible." The Council has found that an alternative location or  
18 configuration of a proposed wind power generation facility on land that does not contain HVF  
19 soils is a "reasonable" alternative under OAR 660-033-0130(37)(a)(A) only if the alternative  
20 location has a substantially similar wind resource compared to the configuration that would  
21 affect HVF soils. The Council has also found an alternative location or configuration of a  
22 proposed wind power generation facility on land that does not contain HVF soils is not a  
23 "reasonable" alternative under OAR 660-033-0130(37)(a)(A) if the location or configuration  
24 would significantly increase the area within the site boundary, significantly increase the area  
25 permanently occupied by the facility's components, or significantly increase the length of  
26 aboveground transmission lines that are necessary to connect the wind facility to the regional  
27 power grid.  
28

29 The applicant's evidence indicated that it would not be possible to avoid or substantially reduce  
30 impacts on HVF soils without compromising the technical feasibility of the facility. As described  
31 by the applicant, the facility access roads would cause the greatest permanent impact on HVF  
32 soils. The applicant proposed to use and improve existing roads wherever possible; and many of  
33 these existing roads run through HVF soils. Moving these roads outside of HVF soil is not  
34 feasible due to what the applicant describes as the 'patchy' nature of the HVF soil, the unusual  
35 routes HVF soil avoidance would require, and the impacts to existing farmland that the  
36 realignment would require.<sup>212</sup>  
37

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<sup>210</sup> *Final Order on the Application for the Helix Wind Power Facility* (July 31, 2009), pp. 58-60; *Final Order on Amendment #1 for the Leaning Juniper II Wind Power Facility* (November 20, 2009), pp. 40-42.

<sup>211</sup> Oregon's Statewide Planning Goals & Guidelines, Goal 13: Energy Conservation, <http://www.oregon.gov/LCD/docs/goals/goal13.pdf> (accessed November 28, 2012).

<sup>212</sup> ASC, Exhibit K, Attachment K-1, p. 13.

1 The applicant further explained that relocating 12.4% of the turbines outside of HVF soil is also  
2 infeasible from an engineering perspective. As described by the applicant, the turbine locations  
3 are driven in large part by the terrain and exposure, which in several instances partially coincide  
4 with land identified as HVF soil.<sup>213</sup> As the applicant explained, changing the facility layout for  
5 the turbines, the met towers or the substations, would have significant detrimental economic  
6 and energy-generation impacts on the facility without significantly reducing the impact on HVF  
7 soil.<sup>214</sup>

8  
9 i. Availability of Existing Rights-of-Way

10  
11 This factor applies primarily to access roads and transmission lines associated with a wind  
12 power facility, which can sometimes take advantage of existing utility and road rights-of-way to  
13 reduce overall project impacts to farmland. The location of access roads is generally dictated by  
14 the location of the proposed wind turbines. The applicant has secured wind facility  
15 development rights from the landowners of HVF tracts that are located in a geographic location  
16 that is available for wind energy facility development. Wind energy facilities have not previously  
17 been developed on these lands. However, the applicant plans to use and improve existing road  
18 rights-of-way whenever possible, which would reduce new impacts to HVF soils.<sup>215</sup>

19  
20 ii. Long-Term Environmental, Economic, Social, and Energy Consequences

21  
22 This subsection requires that the long-term environmental, economic, social, and energy  
23 consequences of facility siting be considered. These potential consequences are discussed as  
24 follows:

25  
26 (A) Environmental, Economic, Social and Energy Consequences

27  
28 Under OAR 660-033-0130(37)(a)(B), the applicant must show that “the long term  
29 environmental, economic, social and energy consequences” of the facility or its components,  
30 taking mitigation into account, “are not significantly more adverse than would typically result  
31 from the same proposal being located on other agricultural lands that do not include high-value  
32 farmland soils.”<sup>216</sup>

33  
34 As described by the applicant in Exhibit K, Attachment K-1, other agricultural lands that do not  
35 include HVF soils are not available within reasonable proximity to the facility. Therefore, the  
36 energy consequence of *not* locating facility components on HVF soils is that 83 turbines would

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<sup>213</sup> ASC, Exhibit K, Attachment K-1, p. 12.

<sup>214</sup> ASC, Exhibit K, Attachment K-4, p. 7.

<sup>215</sup> ASC, Exhibit K, Attachment K-1, p. 13.

<sup>216</sup> The test is similar to that required under ORS 459.504(2)(c)(B) when the Council determines whether to grant a “reasons” exception to a statewide planning goal: “The significant environmental, economic, social and energy consequences anticipated as a result of the proposed facility have been identified and adverse impacts will be mitigated in accordance with rules of the Council applicable to the siting of the proposed facility.”

1 not be developed, precluding potential renewable energy generation of 28% of the total  
2 facility.<sup>217</sup>

3  
4 The applicant explained that the social and economic consequences of locating facility  
5 components on HVF soils include landowners' opportunity to benefit from wind development  
6 on lands that are similar to surrounding lands that have been developed for wind energy. The  
7 applicant asserted that "most of the permanent impacts are to already-disturbed agricultural  
8 ground. Otherwise, the facility is, from a long-term perspective, environmentally neutral at  
9 worst, and can be said to have a positive long-term environmental impact by reducing reliance  
10 on carbon-based sources of energy and thereby reducing greenhouse gas emissions."<sup>218</sup> The  
11 applicant added that the 'minimal' long-term environmental, economic, social and energy  
12 consequences cannot be significantly reduced by relocating the facility elsewhere in the general  
13 vicinity. As the applicant stated, "high value farmland and lands dedicated to agricultural use  
14 are found throughout the analysis area, and are distributed such that any chosen location in the  
15 general area would be likely to encompass similar proportions of both high value farmland and  
16 agricultural lands."<sup>219</sup>

17  
18 (B) Costs

19  
20 OAR 660-033-0130(37)(a)(C) provides that costs may be considered in the analysis but "may not  
21 be the only consideration in determining that siting any component of a wind power generation  
22 facility on high-value farmland soils is necessary." Considerations other than cost have been  
23 discussed above. The applicant noted that "feasible alternatives affecting materially less high-  
24 value farmland are not available in the general area, regardless of cost."<sup>220</sup>

25  
26 (C) Restoration

27  
28 OAR 660-033-0130(37)(a)(D) requires the owner of a wind facility to restore agricultural land  
29 damaged by the wind power facility. Exhibit W of the application, addressed in Section IV.G of  
30 this final order and the Draft Revegetation Plan (Attachment C) describe the tasks the applicant  
31 would perform to restore areas disturbed by the construction, operation, or retirement of the  
32 facility. These tasks include removal of concrete to a minimum depth of three feet, and other  
33 measures to ensure that agricultural activities at the site are not limited after restoration.<sup>221</sup>  
34 Umatilla County has a similar requirement, which is addressed above in findings regarding  
35 UCDO 152.616(HHH)(1) and (m). To ensure adequate restoration, Soil Protection Condition 4  
36 requires the certificate holder to restore all areas disturbed by construction, including  
37 farmland, according to the requirements of a final Revegetation Plan.

38  
39 (D) Additional Criteria

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<sup>217</sup> ASC, Exhibit K, Attachment K-1, Section 2.3.1

<sup>218</sup> ASC, Exhibit K, Attachment K-4, page 4 (of Attachment K-4).

<sup>219</sup> ASC, Exhibit K, Attachment K-4, p. 5 (of Attachment K-4).

<sup>220</sup> ASC, Exhibit K, Attachment K-4, p. 5 (of Attachment K-4).

<sup>221</sup> ASC, Exhibit W and the Draft Revegetation Plan (Attachment C of this final order).

1  
2 Subsections (b), (c) and (d) of OAR 660-033-0130(37) provide additional criteria for wind power  
3 generation facilities located on “arable” or “nonarable” land. OAR 660-033-0130(37)(b) defines  
4 “arable land” as “lands that are cultivated or suitable for cultivation, including high-value  
5 farmland soils” and provides criteria for locating a facility on arable land. OAR 660-033-  
6 0130(37)(c) defines “nonarable land” as land “not suitable for cultivation” and provides that the  
7 criteria in subsection (b)(D) apply on nonarable land. Subsection (d) provides that when a  
8 proposed wind power generation facility is located on a combination of arable and nonarable  
9 lands, then all of the criteria in subsection (b) apply to the entire facility. The facility is approved  
10 to be located on a combination of arable and nonarable lands. Accordingly, the criteria in  
11 subsection (b) apply to the entire facility. These criteria are discussed below.

12  
13 (A) Impacts on Agricultural Operations

14  
15 OAR 660-033-0130(37)(b)(A) provides that the proposed wind power facility must not “create  
16 unnecessary negative impacts on agricultural operations conducted on the subject property.”  
17 The potential effects of the facility on agricultural operations and the measures proposed by  
18 the applicant to minimize the negative impacts on agricultural operations are discussed above  
19 in findings of compliance with MCZO 6.025 and UCDO 152.061. As described by the applicant,  
20 these measures (outlined in Exhibit K, Attachment K-4) are intended to avoid unnecessary  
21 negative impacts on agricultural operations. The applicant states that the “project is designed  
22 and legally structured such that the cost burden of constructing and maintaining the access  
23 roads and other facilities would not fall on the landowner and would not increase the costs of  
24 farming for affected landowners.”<sup>222</sup>

25  
26 To ensure compliance with these rules, Land Use Condition 11 requires the certificate holder to  
27 design and construct the facility using the minimum land area necessary for safe construction  
28 and operation. Land Use Condition 8 would require the certificate holder to consult with  
29 surrounding landowners and lessees and implement measures to reduce or avoid any adverse  
30 impacts to farm practices on surrounding lands and to avoid any increase in farming costs  
31 during construction and operation of the facility.

32  
33 (B) Soil Erosion or Loss

34  
35 OAR 660-033-0130(37)(b)(B) provides that “the presence of a proposed wind power facility”  
36 must not result in unnecessary soil erosion or loss that could limit agricultural productivity.  
37 Potential adverse impacts to soils and measures to avoid or control soil erosion and loss are  
38 addressed by the Council’s Soil Protection standard, discussed in Section IV.D, *Soil Protection* of  
39 this order. The findings in that section indicate that construction and operation of the facility  
40 would not result in unnecessary soil erosion or loss that would reduce the productivity of soil  
41 for crop production.

42

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<sup>222</sup>ASC, Exhibit K, Attachment K-4, pp. 7-8 (of Attachment K-4).

1           (C) Soil Compaction

2  
3 OAR 660-033-0130(37)(b)(C) provides that facility construction or maintenance activities must  
4 not result in unnecessary soil compaction that reduces the productivity of soil for crop  
5 production. Potential adverse impacts to soils and measures to avoid or control soil compaction  
6 are addressed by the Council’s Soil Protection standard, discussed in Section IV.D, *Soil*  
7 *Protection* of this order. The findings in that section indicate that construction and operation of  
8 the proposed facility would not result in unnecessary soil compaction that would reduce the  
9 productivity of soil for crop production.

10  
11           (D) Weed Control

12  
13 OAR 660-033-0130(37)(b)(D) provides that facility construction or maintenance activities must  
14 not result in the “unabated introduction or spread of noxious weeds and other undesirable  
15 weeds species.” To ensure compliance with this rule, and as discussed above in findings  
16 regarding UDCO 152.061 and MCZO 3.010(D), the Council imposes Land Use Condition 6.

17  
18 Based on the evidence in the record and this analysis, the Council finds that the applicant has  
19 shown that siting components of the wind power generation facility on HVF soils is necessary as  
20 required under OAR 660-033-0130(37)(a)(A), and that the facility otherwise satisfies the  
21 requirements of OAR 660-033-0130(37).

22  
23 **Conclusions of Law**

24  
25 Based on the foregoing findings and the evidence in the record, and subject to compliance with  
26 the site certificate conditions, the Council finds that the facility would comply with the  
27 identified applicable substantive criteria and the directly applicable state statute and rule and,  
28 therefore, would comply with the Council’s Land Use standard.

29  
30 **IV.F. Protected Areas [OAR 345-022-0040]**

31  
32           *(1) Except as provided in sections (2) and (3), the Council shall not issue a site certificate*  
33 *for a proposed facility located in the areas listed below. To issue a site certificate for a*  
34 *proposed facility located outside the areas listed below, the Council must find that,*  
35 *taking into account mitigation, the design, construction and operation of the facility are*  
36 *not likely to result in significant adverse impact to the areas listed below. References in*  
37 *this rule to protected areas designated under federal or state statutes or regulations are*  
38 *to the designations in effect as of May 11, 2007:*

39  
40           *(a) National parks, including but not limited to Crater Lake National Park and Fort*  
41 *Clatsop National Memorial;*  
42

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:***

44

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

18  
19 *(n) Research forests established by the College of Forestry, Oregon State University,*  
20 *including but not limited to McDonald Forest, Paul M. Dunn Forest, the Blodgett*  
21 *Tract in Columbia County, the Spaulding Tract in the Mary's Peak area and the*  
22 *Marchel Tract;*

23  
24 *(o) Bureau of Land Management areas of critical environmental concern,*  
25 *outstanding natural areas and research natural areas;*

26  
27 *(p) State wildlife areas and management areas identified in OAR chapter 635,*  
28 *Division 8.*

29 *\*\*\**

30  
31 **Findings of Fact**

32  
33 The Protected Areas standard requires the Council to find that, taking into account mitigation,  
34 the design, construction and operation of a facility are not likely to result in significant adverse  
35 impacts to any protected area as defined by OAR 345-022-0040.<sup>223</sup> As required under OAR 345-  
36 021-0010(L), the applicant identifies the protected areas within the analysis area and evaluates  
37 the following potential impacts during proposed facility construction and operation: excessive

---

<sup>223</sup> 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 resource 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 noise, increased traffic, water use, wastewater disposal, visual impacts of facility structures or  
 2 plumes, and visual impacts from air emissions.<sup>224</sup> In accordance with OAR 345-001-0010(59)(e)  
 3 (definitions), the applicant defines the analysis area as the area within and extending 20 miles  
 4 from the site boundary. The applicant addressed protected areas in Exhibit L of the ASC. The  
 5 applicant's assessment of impacts to protected areas also relied on information presented in  
 6 Exhibit R (Scenic Resources) and Exhibit X (Noise) of the ASC.

7  
 8 Table PA-1, *Protected Areas within Proposed Facility Analysis Area*, presents 16 protected areas  
 9 identified by the applicant within the analysis area, the applicable subparagraph of OAR 345-  
 10 022-0040(1), the approximate distance from the site boundary, the direction of each protected  
 11 area from the facility, a determination of whether facility components would be visible or  
 12 partially visible, and whether facility components would be audible during operation.

13

**Table PA-1: Protected Areas within Facility Analysis Area**

| Protected Area (OAR Reference)                             | Distance from Site Boundary (in miles) | Direction | Would proposed facility structures be visible? <sup>1</sup> (Yes/No) | Would proposed facility operational noise be audible? (Yes/No) |
|--|--|-----------|--|--|
| Umatilla National Wildlife Refuge (345-022-0040(1)(d))     | 14                                     | NNW       | Yes  | No   |
| Cold Springs National Wildlife Refuge (345-022-0040(1)(d)) | 13                                     | NE        | Yes  | No   |
| McNary National Wildlife Refuge (345-022-0040(1)(d))       | 18                                     | NE        | Yes  | No   |
| Umatilla Hatchery (345-022-0040(1)(f))                     | 20                                     | N         | Yes  | No   |
| Irrigon Hatchery (345-022-0040(1)(f))                      | 17.5                                   | N         | Yes  | No   |
| Three Mile Adult Hold Fish Hatchery (345-022-0040(1)(f))   | 13.5                                   | N         | Yes  | No   |
| Hat Rock State Park (345-022-0040(1)(h))                   | 16.5                                   | NE        | Yes  | No   |
| Lindsay Prairie Preserve (345-022-0040(1)(i))              | 0                                      | W         | Yes  | Yes  |
| Oregon State University Agriculture Research and           | 9                                      | N         | Yes  | No   |

<sup>224</sup> The facility would not generate any emission plumes and would not result in visual impacts from air emissions. Therefore, visual impacts from air emissions resulting from proposed facility construction or operation, including but not limited to impacts on Class I Areas as described in OAR 340-204-0050 is not applicable and therefore not addressed in this order.



**Table PA-1: Protected Areas within Facility Analysis Area**

| Protected Area (OAR Reference)  | Distance from Site Boundary (in miles) | Direction | Would proposed facility structures be visible? <sup>1</sup> (Yes/No) | Would proposed facility operational noise be audible? (Yes/No) |
|---|--|-----------|--|--|
| Extension Center, Hermiston (345-022-0040(1)(m))  |  |           |  |  |
| Oregon Trail ACEC/Echo Meadows (345-022-0040(1)(o))   | 2.7                                    | N         | Yes  | No   |
| Horn Butte Curlew ACEC (345-022-0040(1)(o))   | 15                                     | NW        | Yes  | No   |
| Boardman RNA (345-022-0040(1)(o))   | 2.3                                    | NNW       | Yes  | No   |
| Irrigon Wildlife Management Area (345-022-0040(1)(p))   | 16.5                                   | N         | Yes  | No   |
| Power City Wildlife Management Area (345-022-0040(1)(p))  | 14.5                                   | N         | Yes  | No   |
| Coyote Springs Wildlife Management Area (345-022-0040(1)(p))  | 14                                     | N         | Yes  | No   |
| Willow Creek Wildlife Management Area (345-022-0040(1)(p))  | 18                                     | NW        | Yes  | No   |
| Notes:  |  |           |  |  |
| 1. "Facility structures" refers to the visibility of any part of a wind turbine, intraconnection transmission line, or other proposed facilities as determined through viewshed analysis. |  |           |  |  |
| Source: Information presented in Table PA-1 obtained from Table L-2 of Exhibit L of the ASC.  |  |           |  |  |

1

2 *Noise*

3

4 Noise generated by construction and operation of the facility was discussed in Exhibit X of the  
5 ASC and analyzed in Section IV.R., *Noise Control Regulation* of this order for purposes of  
6 compliance with the DEQ noise regulations at OAR Chapter 340, Division 35. Under OAR 340-  
7 035-0035(5)(g), noise produced during construction is exempt from DEQ noise regulations.  
8 Nevertheless, the applicant evaluated potential noise impacts from facility construction in ASC  
9 Exhibit X. Section IV.R., *Noise Control Regulation* of this order includes conditions related to  
10 reducing noise impacts during construction.

11

1 The Lindsey Prairie Preserve, a site managed to protect native grassland and wildlife habitat,  
2 would be the closest protected area within the analysis area to facility construction activities.  
3 The closest portion of the facility to the Lindsay Prairie Preserve is less than one mile west of  
4 the site boundary. All other protected areas are located two miles or more from the site  
5 boundary. During construction, the applicant estimates that the Lindsay Prairie Preserve could  
6 experience peak noise levels of approximately 55 dBA. The applicant explains that peak noise  
7 levels would be short-term and temporary and would not exceed a period of four weeks. In  
8 addition, due the linear nature of construction activities, noise levels would continue to  
9 decrease due to attenuation as construction of access roads and turbines progresses away from  
10 the Lindsey Prairie Preserve. Because of the temporary and linear nature of construction  
11 activities, the applicant asserted construction noise was not likely to result in significant adverse  
12 noise impacts to the Lindsey Prairie Preserve or at any of the remaining 15 protected areas  
13 within the analysis area, all of which are located further from the site boundary than the  
14 Lindsey Prairie Preserve.

15  
16 The applicant proposed to minimize temporary noise impacts during construction by utilizing  
17 electrically-powered equipment, limiting use of noise-producing signals for purposes other than  
18 emergencies, using equipment with properly sized and maintained mufflers, using engine  
19 intake silencers, and establishing a noise complaint response system. To ensure compliance  
20 with these proposals, these measures are imposed in Noise Control Condition 1.

21  
22 As explained in Exhibit L, during operation of the facility, the worst-case modeled noise level in  
23 NRO mode<sup>225</sup> at the Lindsay Prairie Preserve would be approximately 36 to 54 dBA. The  
24 applicant asserted that this was approximately equivalent to the sound level of a normal  
25 conversation. The Lindsay Prairie Preserve is a site protected for restoration and preservation of  
26 native vegetation and wildlife, and based on the applicant's evaluation, received no known  
27 public use. The protected area is fenced and the access road is gated and locked. The applicant  
28 states that the protected area contains no developed facilities of any kind; camping is  
29 prohibited, and there are no trails. The applicant asserted that noise levels of 36 to 54 dBA,  
30 although audible, would not be expected to interfere with the primary purpose (native  
31 grassland and wildlife habitat preservation) of the Lindsay Prairie Preserve and therefore the  
32 applicant concludes that the protected area would not experience significant adverse noise  
33 impacts from facility operation. Based upon the information provided, the Council concurs with  
34 the applicant's assessment and also concurs that, due to noise attenuation, all other protected  
35 areas, which are located at distances of more than two miles from the site boundary, would not  
36 be expected to experience noise impacts greater than existing background noise levels.

37  
38 To ensure the protected areas are not adversely impacted by operational noise, as provided in  
39 Section IV.R, *Noise Control Regulations* of this order, the Council imposes Noise Control  
40 Condition 2, which would require the applicant to identify the NRO mode approach that would  
41 be used during proposed facility operation and include a figure that depicts the turbines that

---

<sup>225</sup> The applicant identified two different NRO modes that it proposes to use during operation of the facility, Approach 1 and Approach 2. ASC, Exhibit X, p. 13.

1 would be operating in NRO mode and the associated dBA reduction level. Further, the Council  
2 imposes Noise Control Condition 3 to ensure that the facility is not operated at full power mode  
3 and that the certificate holder includes a certification in its annual Compliance Report that the  
4 NRO mode turbines identified in the preconstruction analysis required by Noise Control  
5 Condition 2 are operating at or below the identified dBA reduction level. The implementation of  
6 these conditions would help ensure that the noise levels at Lindsay Prairie Preserve would not  
7 be likely to exceed the predicted maximum of 54 dBA.

8  
9 Based on the applicant's analysis, and subject to compliance with Noise Control Conditions 1, 2  
10 and 3 set forth in Section IV.R, *Noise Control Regulations* of this order, the Council finds that  
11 the noise generated by the construction and operation of the facility would not be likely to  
12 result in significant adverse noise impacts to protected areas.

### 13 14 *Traffic*

15  
16 A detailed traffic analysis is presented in Exhibit U of the ASC and analyzed in Section IV.M.,  
17 *Public Services* of this order.

18  
19 As explained in ASC Exhibit U, trucks would utilize I-84, OR-207 and local county roads during  
20 construction. Traffic-related activities would include deliveries of construction materials  
21 (construction equipment, turbine components, substation equipment, transmission line  
22 equipment, road base aggregate, concrete, and water for dust control). The applicant explained  
23 that facility construction traffic would not occur north of I-84, and construction worker traffic  
24 would be dispersed on many roads in the area, rather than concentrated on any one road. All  
25 but five of the protected areas are located north of I-84 and therefore, those areas would be  
26 largely unaffected by temporary traffic impacts generated during proposed facility  
27 construction. Of the five protected areas south of I-84, only the Boardman Research Natural  
28 Area (RNA) and Lindsay Prairie Preserve are likely to experience impacts from facility traffic; the  
29 Willow Creek Wildlife Management Area, Horn Butte Area of Critical Environmental Concern  
30 (ACEC) and the Oregon Trail ACEC are accessed by routes that would not carry facility-related  
31 truck traffic. During construction, BMPs as detailed in Exhibit U, Section 3.5.4 would ensure that  
32 access restrictions to any protected area would be temporary and timed to avoid peak traffic  
33 flow. In addition, the applicant stated that construction of the facility would not result in  
34 closure of any protected area access roads. Potential traffic impacts during facility construction  
35 would be intermittent and temporary, and traffic levels would return to normal following  
36 construction.

37  
38 During operations, the facility would generate an additional 10 to 20 one-way trips on existing  
39 local roads and new facility access roads. Based on the minimal number of operational trips, the  
40 Council agrees with the applicant that the increase would not be likely to have any impact on  
41 protected areas, including access points to protected areas.<sup>226</sup>

42  

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<sup>226</sup> See Section IV.M, *Public Services* of this final order for further discussion of traffic impacts.

1 Based on the applicant’s analysis and conclusions, the Council finds that potential traffic-related  
2 impacts during construction and operation of the facility would not likely result in significant  
3 adverse impacts to any protected areas.

4  
5 *Water Use and Wastewater Disposal*  
6

7 The applicant discussed the facility’s water use in Exhibit O. Generation and management of  
8 wastewater during construction and operation are evaluated in Exhibit V and discussed in  
9 Section IV.N, *Waste Minimization* of this order.

10  
11 The applicant estimated construction of the facility would use approximately 43.2 to 78 million  
12 gallons of water for road construction, concrete mixing, dust suppression and other  
13 construction-related activities from licensed sources in the vicinity of the facility; no ground or  
14 surface water withdrawals would take place beyond those already permitted for existing water  
15 suppliers. During operation, the facility would have minimal water needs that would be fulfilled  
16 through the use of exempt wells at the O&M buildings. Therefore, the applicant does not  
17 anticipate any impact to protected areas from water use during construction or operation of  
18 the facility.

19  
20 As explained in Exhibit L, the applicant indicates that industrial wastewater would not be  
21 produced during construction or operation of the facility. Stormwater runoff would be  
22 managed on site according to the BMPs as described in the NPDES 1200-C / Erosion and  
23 Sediment Control Plan (Exhibit I, Attachment I-2), such that no stormwater would leave the site  
24 boundary. During construction, sanitary wastewater would be contained in portable toilets,  
25 which the applicant explains would be provided and maintained by a licensed contractor.  
26 During operations, sanitary wastes from the O&M buildings would be discharged to a permitted  
27 onsite septic system.

28  
29 In Section IV.D, *Soil Protection* of this order the Council imposes several conditions to ensure  
30 that activities that generate wastewater are managed in a way that protects soils and are  
31 conducted in accordance with the requirements of an NPDES 1200-C stormwater discharge  
32 permit. Subject to compliance with the site certificate conditions, the Council agrees that the  
33 facility would be unlikely to result in adverse impacts to soils on the facility site from  
34 wastewater discharges and therefore would also be unlikely to result in adverse impacts to  
35 protected areas adjacent to or near the site.

36  
37 For the reasons described above, the Council finds that water use and disposal during  
38 construction and operation of the facility would not likely result in a significant adverse impact  
39 to water quality or quantity within any protected area.

40  
41 *Visual Impacts*  
42

43 The applicant conducted a zone of visual influence (ZVI) analysis, or visibility analysis, of the  
44 facility using Environmental Systems Research Institute ArcGIS software and digital bare earth

1 modeling to identify areas from which proposed facility structures (i.e. turbines) might be  
2 visible. The applicant noted that this “bare-earth” modeling approach, based only on the effects  
3 of terrain on visibility, results in a highly conservative assessment of potential visibility for  
4 several reasons. In some areas where the analysis indicates facility structures would be visible,  
5 the only visible components might be the tips of the turbine blades at maximum blade tip  
6 height (MBTH), which the applicant indicates would likely be noticeable only at relatively close  
7 viewing distances. In addition, the model does not account for distance, lighting, weather, and  
8 atmospheric attenuation factors that diminish visibility under actual field conditions. A bare-  
9 earth analysis also does not take into account the effects of vegetation or buildings, which  
10 could block or screen views in some places. Finally, the applicant explained that the use of  
11 turbine heights in the model that are 10% greater than the actual height overstates likely  
12 visibility.

13  
14 The results of the ZVI analysis indicate that one or more facility components would be visible or  
15 partially visible from all 16 protected areas within the analysis area (see Table PA-1, *Protected*  
16 *Areas within the Proposed Facility Analysis Area*). However, as explained in Exhibit L, the  
17 applicant considered visual impacts to be negligible for most protected areas, primarily due to  
18 their distance of 9 to 20 miles from the site boundary. Many of the protected areas currently  
19 have views of other wind farms, transmission lines, and urban and industrial development and  
20 therefore the facility would not introduce a new or unusual feature to the view. In addition, the  
21 applicant explained that potential views of the facility from some of the protected areas would  
22 be partially to fully screened by vegetation.

23  
24 Three of the protected areas closest to the site boundary, including the Boardman RNA, the  
25 Lindsay Prairie Preserve, and the Oregon Trail ACEC, would have foreground to middleground  
26 views of the facility. Potential visual impacts from the facility at these three protected areas are  
27 evaluated further below.

28  
29 Boardman Research Natural Area

30 The Boardman RNA, which functions to provide protection for preservation of native vegetation  
31 and wildlife, is located entirely within the Boardman Bombing Range, approximately 2.3 miles  
32 from the site boundary. The ZVI analysis indicates that more than 150 turbines would be visible  
33 from the Boardman RNA at a middleground viewing distance. However, as the applicant  
34 explained, the site is not managed for its scenic qualities and views of the facility would not  
35 interfere with the functional purpose of vegetation and wildlife preservation. The Boardman  
36 RNA is not publically accessible and is primarily visited by staff from The Nature Conservancy  
37 conducting monitoring and maintenance activities. Therefore, the change in viewshed from the  
38 facility would impact a relatively low number of users. Moreover, the existing viewshed  
39 includes transmission lines, wind turbines, and agricultural irrigation equipment. Therefore, the  
40 applicant asserted that the visual impact of the facility at the Boardman RNA is considered low  
41 to negligible.

42  
43  
44

1 Lindsay Prairie Preserve

2 The Lindsay Prairie Preserve, which functions to provide protection for preservation of native  
3 vegetation and wildlife, is located less than one mile from the site boundary. The site is not  
4 managed for its scenic qualities and views of the facility would not interfere with the functional  
5 purpose of vegetation and wildlife preservation. The ZVI analysis indicated that more than 150  
6 turbines would be visible from the Lindsay Prairie Preserve at close viewing distances, and in  
7 several directions. However, as the applicant explained, the Preserve is fenced, the access  
8 gated and locked, there are no facilities of any kind, and the area receives little public use.  
9 While the existing viewshed contains few structures, the change in viewshed from the facility  
10 would impact a relatively low number of users. Therefore, the applicant asserted that the visual  
11 impact of the facility at the Lindsay Prairie Preserve was considered low.

12

13 Oregon Trail Area of Critical Environmental Concern (ACEC), Echo Meadows

14 The Oregon Trail ACEC, or Echo Meadows, which functions to provide preservation and  
15 enjoyment of a historic trail segment, is located approximately 2.7 miles north of Wheatridge  
16 East. As explained in Exhibit L of the ASC, the site is managed to preserve scenic quality under  
17 the BLM Visual Resource Management system; however, there are no designated views or  
18 viewsheds associated with this ACEC. The applicant stated that views of the facility would not  
19 interfere with the site's historic interest, potential use as a tourism resource, or as an ACEC.

20

21 The ZVI analysis indicates 50 to 150 turbines would be visible at middleground to background  
22 viewing distances at Echo Meadows. The applicant also conducted a supplemental visual  
23 resource assessment, as presented in Exhibit R of the ASC, including a visual simulation of the  
24 proposed facility at the Oregon Trail ACEC from Oregon Trail Road (see Figure R-9 in Exhibit R of  
25 the ASC). The existing viewshed, as presented in Figure R-9 of Exhibit R of the ASC, included  
26 transmission lines and wind turbines. The applicant explained that turbines would appear  
27 smaller than existing man-made features within the viewshed. Therefore, the applicant  
28 concluded that while the site is managed to preserve scenic quality, because there are no  
29 designated view or viewsheds within the ACEC and the existing viewshed contained  
30 transmission lines and wind turbines, visual impacts of the facility would not compromise the  
31 integrity of the remaining evidence of the Oregon Trail at this site.<sup>227</sup>

32

33 On the record of the public hearing, Mr. G. Harrison raised issues regarding the visual impact of  
34 the proposed facility's turbines, roads, and other disturbances on protected areas including  
35 Echo Meadows and the historic Oregon Trail. Mr. G. Harrison stated that there should be no  
36 distraction looking to or from the Oregon Trail and that mitigation for any disturbance should  
37 be exceedingly high. On the record of the June 6, 2016 public hearing, on behalf of the  
38 applicant, D. Petersen notes that Mr. G. Harrison is a member of the Northwest Oregon  
39 California Trails Association (NWOCTA) and that during the ASC phase the applicant  
40 communicated via email with NWOCTA, including Mr. G. Harrison, on several occasions. D.  
41 Petersen provided email correspondence from Preservation Officer William Symms, carbon  
42 copying G. Harrison, which explained that as long as the proposed facility was located on

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<sup>227</sup> WRWAPPDoc72 DPO Public Comment\_G.Harrison 2016-05-19.

1 private land at least one mile away from the Well Spring and Echo Meadows sites, that  
2 NWOCTA had no objections to the visual impacts of the proposed facility. D. Petersen further  
3 explained that, consistent with NWOCTA's request, turbines would be located approximately  
4 1.5 miles from the referenced protected areas. Additionally, the Navy, which is the steward of  
5 many significant Oregon Trail-related resources on the Boardman Bombing Range, including the  
6 Well Spring site commented that they had no substantive comments on the draft proposed  
7 order.<sup>228</sup>

8  
9 On the record of the June 6, 2016 public hearing, Ms. Gilbert/FGRV raised concern with the  
10 department's recommendation to Council that none of the protected areas within the analysis  
11 area would experience significant adverse visual impacts from facility structures. Ms.  
12 Gilbert/FGRV further requested that the Council impose additional setback requirements and  
13 limits on number of turbines that would be visible from any protected area.<sup>229</sup>

14  
15 As stated above, the Protected Areas standard requires the Council to find that, taking into  
16 account mitigation, the design, construction and operation of a facility are not likely to result in  
17 significant adverse impacts to any protected area as defined by OAR 345-022-0040. OAR 345-  
18 001-0010(53) defines "significant" as:

19  
20 "having an important consequence, either alone or in combination with other factors, based  
21 upon the magnitude and likelihood of the impact on the affected human population or  
22 natural resources, or on the importance of the natural resources affected, considering the  
23 context of the action or impact, its intensity and the degree to which possible impacts are  
24 caused by the proposed action. Nothing in this definition is intended to require a statistical  
25 analysis of the magnitude or likelihood of a particular impact."

26  
27 Therefore, the significance of the potential visual impacts at identified protected areas is based  
28 on the magnitude and likelihood of the impact on the affected human population or natural  
29 resource. The Council's standard requires a finding that a proposed facility is not likely to have a  
30 significant adverse impact, but does not require a finding that a proposed facility is unlikely to  
31 have any adverse impacts.

32  
33 Based on the analysis presented above, the Council concurs with the applicant's analysis and  
34 conclusions regarding impacts to each of the three protected areas closest to the site boundary  
35 (Boardman RNA, the Lindsay Prairie Preserve, and the Oregon Trail ACEC).<sup>230</sup> Scenic Resources  
36 Condition 1, Scenic Resources Condition 2, and Land Use Condition 9 are intended to minimize

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<sup>228</sup> On behalf of the United States Department of Navy, K. Meenaghan commented in support of the cultural and natural resource investigations conducted by the applicant and raised no issues. WRWAPPDoc77 DPO Public Comment\_Navy 2016-05-23

<sup>229</sup> WRWAPPDoc100 DPO Public Comment\_I. Gilbert 2016-06-06.

<sup>230</sup> On the record of the June 6, 2016 public hearing, Morrow County on behalf of the Morrow County Court weighed in that they would find that there are no additional or significant impacts to the Oregon Trail in Morrow County. The Echo Meadows Oregon Trail ACEC is in Morrow County. WRWAPPDoc117 DPO SAG Comment\_Morrow County 2016-06-06.

1 potential visual impacts of proposed facility structures from viewpoints at the identified  
2 protected areas. The Council finds that while facility components would result in a change to  
3 the existing viewshed of the protected areas discussed above, due to the low impact to users,  
4 no specified management of scenic or visual qualities (or designated views or viewsheds), and  
5 presence of similar structures within the existing viewshed, the visual impacts of construction  
6 and operation of the facility would not likely result in a significant adverse impact to any  
7 protected area.

### 8 **Conclusions of Law**

10  
11 Based on the foregoing findings, and subject to compliance with the site certificate conditions,  
12 the Council concludes that, taking into account mitigation, the design, construction and  
13 operation of the facility would not be likely to result in significant adverse impacts to any  
14 protected areas, in compliance with the Council's Protected Area standard.

### 15 **IV.G. Retirement and Financial Assurance [OAR 345-022-0050]**

16  
17 *To issue a site certificate, the Council must find that:*

18  
19  
20 *(1) The site, taking into account mitigation, can be restored adequately to a useful, non-*  
21 *hazardous condition following permanent cessation of construction or operation of the*  
22 *facility.*

23  
24 *(2) The Applicant has a reasonable likelihood of obtaining a bond or letter of credit in a*  
25 *form and amount satisfactory to the Council to restore the site to a useful, non-*  
26 *hazardous condition.*

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

29 The Retirement and Financial Assurance standard requires a finding that the facility site can be  
30 restored to a useful, non-hazardous condition at the end of the facility's useful life, should  
31 either the certificate holder stop construction or should the facility cease to operate.<sup>231</sup> In  
32 addition, it requires a demonstration that the applicant can obtain a bond or letter of credit to  
33 restore the site to a useful, non-hazardous condition.

#### 34 *Restoration of the Site Following Cessation of Construction or Operation*

35  
36  
37 OAR 345-022-0050(1) requires the Council to find that the proposed facility site can be restored  
38 to a useful non-hazardous condition at the end of the proposed facility's useful life. The Council  
39 has interpreted the term "useful, nonhazardous condition" to mean a condition consistent with

---

<sup>231</sup> OAR 345-022-0050(1).



1 the applicable local comprehensive land use plan and land use regulations.<sup>232</sup> The facility is  
2 located entirely on EFU zoned land.<sup>233</sup> Therefore, to satisfy this standard, the applicant must  
3 show that the site can be restored to a non-hazardous condition suitable for EFU-zoned lands.  
4 The applicant estimated the facility's useful life as 50 years.<sup>234</sup>

5  
6 Restoring the site to a useful, nonhazardous condition upon cessation of construction or  
7 operations (or upon retirement) would involve removal of all turbine components,<sup>235</sup>  
8 meteorological towers, aboveground electrical components, transformers and other substation  
9 equipment. The applicant stated that O&M buildings would be demolished and disposed of at  
10 an appropriate facility, or converted to agricultural buildings for use by the landowners. As  
11 explained in Exhibit W, concrete foundations would be removed to a minimum depth of three  
12 feet below grade.<sup>236</sup> Underground cables that are at least three feet below grade would be left  
13 in place. Gravel surfacing material would be removed, the impacted area would be  
14 decompacted as needed, the area regraded to appropriate contours and topsoil replaced, and  
15 the area would be revegetated unless the landowner indicates a desire to leave the new or  
16 expanded roads in place.<sup>237</sup>

17  
18 The Council's rules include several mandatory site certificate conditions relating to the  
19 obligation of the certificate holder to prevent the development of conditions on the site that  
20 would preclude restoration of the site and requiring the certificate holder to obtain Council  
21 approval of a retirement plan in the event that the facility ceases construction or operation:  
22

23 **Retirement and Financial Assurance Condition 1:** The certificate holder shall prevent the  
24 development of any conditions on the site that would preclude restoration of the site to a  
25 useful, non-hazardous condition to the extent that prevention of such site conditions is  
26 within the control of the certificate holder. [Mandatory Condition OAR 345-027-0020(7)]  
27

28 **Retirement and Financial Assurance Condition 2:** The certificate holder must retire the  
29 facility in accordance with a retirement plan approved by the Council if the certificate  
30 holder permanently ceases construction or operation of the facility. The retirement plan  
31 must describe the activities necessary to restore the site to a useful, nonhazardous  
32 condition, as described in OAR 345-027-0110(5). After Council approval of the plan, the  
33 certificate holder must obtain the necessary authorization from the appropriate regulatory  
34 agencies to proceed with restoration of the site. [Mandatory Condition OAR 345-027-  
35 0020(9)]

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<sup>232</sup> See, e.g., *Final Order on the Klondike III Wind Project* (June 30, 2006), p.16.

<sup>233</sup> ASC, Exhibit K, Figure K-2.

<sup>234</sup> ASC, Exhibit W, p.2.

<sup>235</sup> As explained in Exhibit W of the ASC, hazardous materials associated with the proposed facility would largely be limited to oils in turbine gearboxes and transformers; these materials would be pumped out by a specialized vehicle for recycling prior to equipment removal.

<sup>236</sup> The Council has previously found that at a depth of three feet, underground components and foundations are not expected to interfere with farming practices or crop root growth.

<sup>237</sup> ASC, Exhibit W, p.2.

1  
2 **Retirement and Financial Assurance Condition 3:** The certificate holder is obligated to  
3 retire the facility upon permanent cessation of construction or operation. If the Council  
4 finds that the certificate holder has permanently ceased construction or operation of the  
5 facility without retiring the facility according to a final retirement plan approved by the  
6 Council, as described in OAR 345-027-0110, the Council must notify the certificate holder  
7 and request that the certificate holder submit a proposed final retirement plan to the  
8 department within a reasonable time not to exceed 90 days. If the certificate holder does  
9 not submit a proposed final retirement plan by the specified date, the Council may direct  
10 the department to prepare a proposed final retirement plan for the Council's approval.

11  
12 Upon the Council's approval of the final retirement plan, the Council may draw on the bond  
13 or letter of credit described in OAR 345-027-0020(8) to restore the site to a useful,  
14 nonhazardous condition according to the final retirement plan, in addition to any penalties  
15 the Council may impose under OAR Chapter 345, Division 29. If the amount of the bond or  
16 letter of credit is insufficient to pay the actual cost of retirement, the certificate holder must  
17 pay any additional cost necessary to restore the site to a useful, nonhazardous condition.  
18 After completion of site restoration, the Council must issue an order to terminate the site  
19 certificate if the Council finds that the facility has been retired according to the approved  
20 final retirement plan. [OAR 345-027-0020(16)]

21  
22 In Section IV.B, *Organizational Expertise* of this order, the Council finds that the applicant has  
23 the organizational expertise to construct, operate, and retire the facility in compliance with that  
24 Council standard. In addition, the Council finds that the applicant meets the Council's Soil  
25 Protection, Fish and Wildlife Habitat, and Waste Minimization standards (Sections IV.D, IV.H,  
26 and IV.N of this order, respectively). Each of those sections imposes conditions on the  
27 certificate holder that are designed to ensure that construction and operation of the facility  
28 would not have adverse impacts on the surrounding land.

29  
30 Based on the applicant's proposal and those findings, and subject to compliance with the  
31 conditions listed above, the Council finds that the facility site can be adequately restored to a  
32 useful, non-hazardous condition following permanent cessation of construction or operation of  
33 the facility.

34  
35 *Estimated Cost of Site Restoration*

36  
37 OAR 345-022-0050(2) requires the Council to find that the applicant has a reasonable likelihood  
38 of obtaining a bond or letter of credit in a form and amount necessary to restore the proposed  
39 facility site to a useful non-hazardous condition. A bond or letter of credit provides a site  
40 restoration remedy to protect the state of Oregon and its citizens if the certificate holder fails  
41 to perform its obligation to restore the site. The bond or letter of credit must remain in force  
42 until the certificate holder has fully restored the site. OAR 345-027-0010(8) establishes a  
43 mandatory condition, included as Retirement and Financial Assurance Condition 4, which  
44 ensures compliance with this requirement.

1 The applicant used the department's *Cost Estimating Worksheet* to estimate that the total site  
 2 restoration cost (calculated in Q1 2015 dollars) would be approximately \$18.1 million. A  
 3 summary of the applicant's cost estimate from Attachment W-1 of Exhibit W is presented in  
 4 Table RF-1, *Applicant's Site Restoration Cost Estimate* below.<sup>238</sup> The applicant based its estimate  
 5 on the assumption that site restoration would require, at a maximum, removal and restoration  
 6 for the following proposed facility components:

- 8 • 292 turbines and ancillary equipment;
- 9 • twelve meteorological towers;
- 10 • two O&M buildings;
- 11 • three substations;
- 12 • approximately 10.8 miles of aboveground 34.5-kV collector line;
- 13 • approximately 63 miles of 230 kV transmission line;
- 14 • 60 junction boxes;
- 15 • restoration of approximately 37 miles of access roads; and
- 16 • 283 acres that would be impacted by the removal activities associated with the  
 17 facility components listed above.

**Table RF-1: Applicant's Site Restoration Cost Estimate**

| Proposed Facility Component                                   | Restoration Activity   | Cost Estimate |
|---|--|---------------|
| Turbines  | Dismantle and remove equipment and foundations; restore site | \$7,980,827   |
| Meteorological Towers   | Dismantle and dispose equipment                              | \$124,716     |
| O&M Facilities  | Dismantle and dispose equipment                              | \$125,772     |
| Substations   | Dismantle and dispose equipment                              | \$564,282     |
| Collector Lines   | Remove above-ground cables                                   | \$69,951      |
| Transmission Lines  | Remove above-ground cables                                   | \$1,865,493   |
| Junction Boxes  | Remove electrical to 4' below grade                          | \$3,060       |
| Access Roads  | Remove, grade and seed                                       | \$875,539     |
| Restoration of Additional Areas Disturbed by Facility Removal | Grade and seed   | \$1,694,760   |
| General Costs   | Permits, mobilization, engineering, other direct costs       | \$465,536     |
| Subtotal  |  | \$13,769,936  |
| Subtotal Adjusted to Current Dollars (Q1 2015 dollars)        |  | \$14,946,409  |
| Performance Bond  | 1%   | \$149,464     |
| Gross Cost (Adjusted)   |  | \$15,095,873  |
| Administration and Project Management                         | 10%  | \$1,509,587   |

<sup>238</sup> The detailed cost estimate is included in Attachment W-1 to Exhibit W of the ASC but is not included in Table 1.

**Table RF-1: Applicant's Site Restoration Cost Estimate**

| <b>Proposed Facility Component</b>                       | <b>Restoration Activity</b> | <b>Cost Estimate</b> |
|--|-----------------------------|----------------------|
| Future Development Contingency                           | 10%                         | \$1,509,587          |
| Total Site Restoration Cost (current dollars)            |                             | \$18,115,048         |
| Total Site Restoration Cost (rounded to nearest \$1,000) |                             | \$18,115,000         |

1  
2 The Council reviewed the cost estimate and finds the applicant's estimated cost of \$18.1 million  
3 (Q1 2015 dollars) is a reasonable estimate of an amount satisfactory to restore the site to a  
4 useful, nonhazardous condition.

5  
6 *Ability of the Applicant to Obtain a Bond or Letter of Credit*

7  
8 Based on the estimate shown in Table RF-1, *Applicant's Site Restoration Cost Estimate* the value  
9 of the financial assurance bond or letter of credit for restoring the site of the facility would be  
10 approximately \$18.1 million (Q1 2015 dollars), adjusted annually as described in the  
11 recommended condition below.

12  
13 The applicant provided information about its financial capability in Exhibit M, *Financial*  
14 *Capability* of the ASC. The applicant proposed to provide a financial assurance bond or letter of  
15 credit in a form approved by the Council before beginning construction of the facility. To  
16 demonstrate its ability to receive an adequate bond or letter of credit, the applicant provided a  
17 letter from Bank of Eastern Oregon dated December 4, 2014, stating that Jerry Rietmann,  
18 Chairman of Wheatridge Wind Energy, LLC, has "the ability to effectively manage the  
19 Wheatridge Wind Energy project to its completion" and that the Bank of Eastern Oregon  
20 understands a potential letter of credit could be required in the amount of \$17.5 million  
21 dollars.<sup>239</sup> The letter does not constitute a commitment from Bank of Eastern Oregon to issue  
22 the letter of credit.

23  
24 To address the applicant's financial assurance obligations and ensure the adequacy of the bond  
25 or letter of credit, the Council adopts the following conditions:

26  
27 **Retirement and Financial Assurance Condition 4:** Before beginning construction of the  
28 facility, the certificate holder shall submit to the State of Oregon, through the Council, a  
29 bond or letter of credit in a form and amount satisfactory to the Council to restore the site  
30 to a useful, non-hazardous condition. The certificate holder shall maintain a bond or letter  
31 of credit in effect at all times until the facility has been retired. The Council may specify

<sup>239</sup> The pASC submitted by the applicant on December 19, 2014 includes a retirement cost estimate equal to \$17.5 million; in the department's review of the retirement cost estimate included in the pASC, revisions were requested resulting in the applicant's higher estimate of \$18.1 million. Retirement and Financial Assurance Conditions 4 and 5 ensure that the bond or letter of credit accurately reflects the retirement estimate for the facility.

1 different amounts for the bond or letter of credit during construction and during operation  
2 of the facility. [Mandatory Condition OAR 345-027-0020(8)]

3  
4 **Retirement and Financial Assurance Condition 5:** Before beginning construction of the  
5 facility, the certificate holder shall submit to the State of Oregon, through the Council, a  
6 bond or letter of credit naming the State of Oregon, acting by and through the Council, as  
7 beneficiary or payee. The initial bond or letter of credit amount for the facility is \$18.1  
8 million dollars (Q1 2015 dollars), to be adjusted to the date of issuance, and adjusted on an  
9 annual basis thereafter, as described in sub-paragraph (b) of this condition:

10  
11 (a) The certificate holder may adjust the amount of the initial bond or letter of credit  
12 based on the final design configuration of the facility. Any revision to the restoration  
13 costs should be adjusted to the date of issuance as described in (b) and subject to  
14 review and approval by the Council.

15  
16 (b) The certificate holder shall adjust the amount of the bond or letter of credit using  
17 the following calculation:

18  
19 (1) Adjust the amount of the bond or letter of credit (expressed in Q1 2015 dollars)  
20 to present value, using the U.S. Gross Domestic Product Implicit Price Deflator,  
21 Chain-Weight, as published in the Oregon Department of Administrative Services'  
22 "Oregon Economic and Revenue Forecast" or by any successor agency and using the  
23 first quarter 2015 index value and the quarterly index value for the date of issuance  
24 of the new bond or letter of credit. If at any time the index is no longer published,  
25 the Council shall select a comparable calculation to adjust first quarter 2015 dollars  
26 to present value.

27  
28 (2) Round the result total to the nearest \$1,000 to determine the financial assurance  
29 amount.

30  
31 (c) The certificate holder shall use an issuer of the bond or letter of credit approved by  
32 the Council.

33  
34 (d) The certificate holder shall use a form of bond or letter of credit approved by the  
35 Council. The certificate holder shall describe the status of the bond or letter of credit in  
36 the annual report submitted to the Council under OAR 345-026-0080. The bond or letter  
37 of credit shall not be subject to revocation or reduction before retirement of the facility  
38 site.

39  
40 Subject to compliance with Retirement and Financial Assurance Conditions 1, 2, and 3, the  
41 Council finds that the facility can be restored adequately to a useful, non-hazardous condition  
42 following permanent cessation of construction or operation of the proposed facility. The  
43 Council finds that the December 4, 2014 letter from Bank of Eastern Oregon is sufficient  
44 evidence of a reasonable likelihood that the applicant could obtain the necessary financial

1 assurance. Subject to compliance with Retirement and Financial Assurance Conditions 4 and 5,  
2 the Council finds that the certificate holder has a reasonable likelihood of obtaining a bond or  
3 letter of credit in a form and amount satisfactory to the Council to restore the site to a useful,  
4 non-hazardous condition.

5

6 **Conclusions of Law**

7 Based on the foregoing findings of fact, and based on Council's findings that the letter from  
8 Bank of Eastern Oregon dated December 4, 2014 represents a reasonable likelihood that the  
9 applicant could obtain the necessary financial assurance, and subject to compliance with the  
10 mandatory and site certificate conditions, the Council finds that the facility complies with the  
11 Council's Retirement and Financial Assurance standard.

12

13 **IV.H. Fish and Wildlife Habitat [OAR 345-022-0060]**

14

15 *To issue a site certificate, the Council must find that the design, construction and*  
16 *operation of the facility, taking into account mitigation, are consistent with the fish and*  
17 *wildlife habitat mitigation goals and standards of OAR 635-415-0025 in effect as of*  
18 *September 1, 2000.*

19

20 **Findings of Fact**

21

22 The Council's Fish and Wildlife Habitat standard requires the Council to find that the design,  
23 construction and operation of a facility is consistent with ODFW's habitat mitigation goals and  
24 standards, as set forth in OAR 635-415-0025. This rule creates requirements for mitigating  
25 impacts to fish and wildlife habitat, based on the functional quantity and quality of the habitat  
26 impacted as well as the nature, extent, and duration of the impact. The rule also establishes a  
27 habitat classification system based on the function and value of the habitat it would provide to  
28 a species or group of species likely to use it. There are six habitat categories, with category 1  
29 being the most valuable, and category 6 the least valuable.

30

31 The analysis area for potential fish and wildlife habitat impacts, as defined in the project order,  
32 is the area within the site boundary and extending ½-mile from all ground-disturbing activities  
33 anticipated during construction, unless otherwise described in an ODFW- and ODOE-approved  
34 protocol.<sup>240</sup> The applicant provided evidence of its compliance with the Fish and Wildlife  
35 Habitat standard in Exhibit P. Additional information and evidence of the applicant's ability to  
36 meet mitigation compliance requirements was included in Exhibit D, *Organizational Expertise* of  
37 the ASC and is discussed in Section IV.B, *Organizational Expertise* of this order.

38

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<sup>240</sup> ASC, Exhibit P, p.1.

1 *Habitat Types and Categories in the Analysis Area*  
2

3 To identify the habitat types and categories within the analysis area, the applicant conducted a  
4 desktop review of available information including data from ODFW, US Fish and Wildlife Service  
5 (USFWS), and the Oregon Biodiversity Information Center (ORBIC), as well as other various  
6 sources as described in Exhibit P. The applicant reviewed these various databases and  
7 information sources for documented and predicted occurrences of rare plant and special status  
8 vertebrate wildlife species; the applicant then used this information to prepare for field surveys  
9 used to validate habitat types and categories, as well as to establish information related to  
10 state sensitive species.

11  
12 Additionally, the applicant used the database review to identify potential threatened and  
13 endangered species that may be present in the analysis area.<sup>241</sup> Threatened and endangered  
14 species are discussed in section IV.I under the *Threatened and Endangered Species* standard.  
15 The applicant explained that for golden and bald eagles, the records search was based on  
16 documented and predicted occurrences within a 10-mile buffer of the site boundary. For rare  
17 plants and all other special status vertebrate wildlife species, the information search was based  
18 on the area within and extending 5-miles of the site boundary. As described in Exhibit P,  
19 Attachment P-1 Ecological Investigations Report, the applicant's biologists conducted various  
20 field surveys of the analysis area in 2011, 2012, and 2013, and with additional eagle nest  
21 monitoring in 2014.

22  
23 The applicant identified five specific habitat types in the analysis area. The various habitat types  
24 are classified into habitat categories pursuant to the ODFW fish and wildlife habitat mitigation  
25 rule (OAR 635-415-0025). Habitat categories are assigned based on factors including habitat  
26 quality, uniqueness, irreplaceability, extent, importance to specific species, and other factors.  
27 As described in Exhibit P, the identified habitat and habitat subtypes types within the analysis  
28 area are:

- 29  
30
- 31 • Grassland: Exotic Annual and Native Perennial (habitat categories 1-4)
  - 32 • Shrub-steppe: Basin Big Sagebrush and Rabbitbrush/Snakeweed (habitat categories 1-4)
  - 33 • Escarpment: Exposed Rock (habitat category 2)
  - 34 • Developed: Revegetated or Other Planted Grassland (habitat category 3)
  - 35 • Developed: Irrigated Agriculture, Dryland Wheat, and Other (habitat category 6)

36 Exhibit P, Section 3.1 provides additional information and description related to the specific  
37 habitat types, habitat subtypes and habitat categories within the analysis area.

38  
39 Potential impacts to individual species, including state sensitive species, are addressed below.  
40 Potential impacts to state and federally listed threatened and endangered species are  
41 addressed in Section IV.A.9, *Threatened and Endangered Species* of this order.  
42

---

<sup>241</sup> ASC, Exhibit P, Section 2.1.

1 *Sensitive Plants and Wildlife within the Analysis Area*

2

3 The applicant reviewed available existing information related to special status species that may  
4 occur within analysis area, which includes the area within and extending ½-mile from the site  
5 boundary.<sup>242</sup> As part of the information review, Oregon sensitive species as well as other non-  
6 listed species within Morrow and Umatilla counties were investigated for a larger area of 5  
7 miles from the site boundary.<sup>243</sup> In addition, an information review of bald and golden eagle  
8 nests was conducted for the area within and extending 10 miles of the site boundary.<sup>244</sup>

9

10 Based on existing information sources and historical records, the applicant assembled a list of  
11 threatened, endangered, and sensitive species with the possibility of occurring within the  
12 analysis area. This list of potential species included one terrestrial mammal species, eight bat  
13 species, 13 bird species, one lizard, one turtle, and three fish species. The applicant also  
14 reviewed the ORBIC database for occurrences of sensitive and listed species in the analysis  
15 area. The results of that database search returned records of one mammal (white-tailed  
16 jackrabbit), six bird species (ferruginous hawk, Swainson’s hawk, burrowing owl, long-billed  
17 curlew, grasshopper sparrow, and blackthroated sparrow), one turtle (painted turtle), and one  
18 fish species (Steelhead; Middle Columbia River summer run). ORBIC results did not include any  
19 records of listed or sensitive bat species or listed or sensitive plant species within 5 miles of the  
20 analysis area. ORBIC reported one record of a bald eagle nest within 10 miles of the site  
21 boundary. In addition, the applicant’s biological consultant was familiar with at least three  
22 golden eagle breeding territories within 10 miles of the site boundary.<sup>245</sup>

23

24 After performing a desktop review of existing information, the applicant conducted field  
25 surveys to confirm habitat types and occurrence or use of the study area by listed and sensitive  
26 species. Results of the field surveys are described in detail in ASC Exhibit P, Attachment P-1,  
27 Ecological Investigations Report.

28

29 Mammals

30

31 The applicant conducted special-status wildlife field surveys from March through early June,  
32 2011. During special-status wildlife surveys, two mammalian species with special status and  
33 evidence of such species were detected including Washington ground squirrel and white-tailed  
34 jackrabbit. Washington ground squirrel is a state Threatened species, and is addressed in  
35 Section IV.I, *Threatened and Endangered Species* of this order; white-tailed jackrabbit is a state  
36 Sensitive-Vulnerable species and is addressed below. The applicant asserts that aquatic habitat  
37 would be avoided during facility construction and operation and therefore did not conduct  
38 surveys for aquatic habitat.<sup>246</sup>

39

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<sup>242</sup> ASC, Exhibit P, p. 4.

<sup>243</sup> ASC, Exhibit P, p. 4.

<sup>244</sup> ASC, Exhibit P, p. 4.

<sup>245</sup> ASC, Exhibit P, p. 22.

<sup>246</sup> ASC, Exhibit P, pp. 12 and 25.



1 Bat Species

2

3 As noted above, while the ORBIC database search did not return any records of listed or  
4 sensitive bats, the applicant nevertheless conducted field surveys for bat species in the study  
5 area. The applicant conducted a ground level, habitat-based bat species inventory between the  
6 first week of July and the last week of October, 2011, representing a time period when bat  
7 fatality due to turbine collision is known to occur within the Pacific Northwest. The inventory  
8 utilized acoustic monitoring equipment to investigate bat species diversity within the site  
9 boundary.

10

11 As explained in Exhibit P, acoustic monitoring surveys detected eight bat species.  
12 These species included the two special status species known to be at risk of collision with  
13 turbines, hoary bat (state sensitive-vulnerable) and silver-haired bat (state sensitive-  
14 vulnerable). Other detected state sensitive species include California myotis (state sensitive-  
15 vulnerable) and long-legged myotis (state sensitive-vulnerable). The silver-haired bat was  
16 detected at 11 of the 12 study locations; small-footed myotis was detected at nine of the 12  
17 acoustic monitoring site; and, Hoary bat was found at six of the detector locations. In addition,  
18 California myotis, long-eared myotis, and long-legged myotis were each detected at a single  
19 site, near a riparian area along the intraconnection transmission corridor.<sup>247</sup>

20

21 Avian Species

22

23 The applicant conducted 1,229 20-minute avian use surveys between January 30, 2011 and  
24 February 11, 2012 (823 surveys associated with the Wheatridge West turbine group and 406  
25 surveys associated with the Wheatridge East turbine group), including 443 winter surveys, 262  
26 spring surveys, 261 summer surveys, and 263 fall surveys.<sup>248</sup> During the avian use surveys, the  
27 applicant detected eight sensitive bird species, and both bald and golden eagle (though, neither  
28 eagle species is considered State Sensitive by ODFW nor listed as threatened or endangered by  
29 ODFW). Sensitive species detected include:

30

- 31 • Swainson's hawk (Sensitive-Vulnerable)
- 32 • Ferruginous hawk (Sensitive-Critical)
- 33 • Peregrine falcon (Sensitive-Vulnerable)
- 34 • Greater Sandhill crane (Sensitive-Vulnerable)
- 35 • Long-billed curlew (Sensitive-Vulnerable)
- 36 • Burrowing owl (Sensitive-Critical)
- 37 • Loggerhead shrike (Sensitive-Vulnerable), and
- 38 • Grasshopper sparrow (Sensitive-Vulnerable)

39

40 The applicant conducted aerial raptor nest surveys for all components of the proposed facility,  
41 encompassing an area of approximately 237.5 square miles during the 2011 raptor breeding

---

<sup>247</sup> ASC, Exhibit P, pp. 13 and 26.

<sup>248</sup> ASC, Exhibit P, p. 9.

1 season. For the Wheatridge West turbine group and the intraconnection transmission corridor,  
2 supplemental surveys were conducted in 2012 and 2013 to locate raptor nests on and within  
3 two miles of some small areas that had been added to the proposed facility site boundary  
4 subsequent to the 2011 survey. The aerial raptor surveys identified 41 active raptor nests (and  
5 16 common raven nests), including nests of the following species:

- 6
- 7 • Swainson’s hawk – 26 nests
- 8 • Ferruginous hawk – 4 nests
- 9 • Red-tailed hawk – 7 nests
- 10 • Prairie falcon – 1 nest
- 11 • Great horned owl – 2 nest
- 12 • Barn owl – 1 nest
- 13

14 The applicant conducted three aerial surveys during March, May and June, 2011 for eagle and  
15 raptor nests, encompassing the area within and extending 10-miles from the site boundary. The  
16 area surveyed included all potential nesting habitat, such as cliffs, large trees, and transmission  
17 towers. Results of the aerial surveys identified one unoccupied and seven occupied golden  
18 eagle territories, five active nests, four successful breeding attempts, and seven fledged young.  
19 The applicant states that the single historical bald eagle nest located in Umatilla County in the  
20 ORBIC records was found to be no longer present.

21

22 The applicant conducted aerial and ground monitoring for eagle nests identified during the  
23 2011 aerial surveys during 2012, 2013, and 2014, as described in the ASC. The applicant has  
24 stated that it has continued eagle and raptor nest monitoring in 2015 and 2016, though as of  
25 the time of publishing this proposed order, 2015 and 2016 survey results have not been  
26 provided to the department. As explained in Exhibit P, the 2012 eagle nest monitoring yielded  
27 six occupied golden eagle territories, four active nests, two successful breeding attempts, and  
28 three fledged young. The 2013 eagle nest monitoring yielded four occupied golden eagle  
29 territories, two active nests, one successful breeding attempt, and one fledged young. The 2014  
30 eagle nest monitoring yielded five occupied golden eagle territories, three active nests, three  
31 successful breeding attempts, and three fledged young.<sup>249</sup>

### 32 Rare Plants

34

35 As described in Exhibit P, the applicant conducted rare plant surveys with botanists familiar  
36 with local flora; most surveys occurred in 2011, but supplemental surveys occurred in 2012 and  
37 2013. The applicant explains that a single special status vascular plant species—Laurent’s  
38 milkvetch (*Astragalus collinus* var. *laurentii*)—was found during special status plant surveys.  
39 Impacts to this plant are addressed in Exhibit Q of the ASC and Section IV.I, *Threatened and*  
40 *Endangered Species* of this order.

### 41 *Construction and Operational Impacts to Habitat*

---

249 ASC, Exhibit P, pp. 8-12 and 22-25.

1 Construction and operation of the facility would result in permanent and temporary loss of  
 2 wildlife habitat. Exhibit P explains that the proposed facility would cause temporary and  
 3 permanent impacts to habitat classified as categories 2, 3, 4, and 6. The applicant stated that no  
 4 category 1 or 5 habitat would be impacted by the proposed facility.<sup>250</sup> Table FW-1, *Potential*  
 5 *Temporary and Permanent Impacts by Habitat Category and Type*, recreated from Table P-4,  
 6 Exhibit P, Section 5.1, described the anticipated impacts by habitat type, category, and acreage.  
 7 Table FW-1 delineates habitat impacts by the west turbine group, the east turbine group, and  
 8 the intraconnection corridor. The table also shows expected habitat impacts for two alternative  
 9 turbine layouts (“maximum” and “minimum” layouts) and two alternative intraconnection lines  
 10 (a longer option and shorter option).

11  
 12 The applicant noted in a footnote to Table P-4 (ASC Exhibit P) that the temporary facilities  
 13 include access roads, construction areas, access for overhead line construction, installation sites  
 14 for underground collector cables, and equipment laydown areas for individual turbines, entire  
 15 strings of turbines, and laydown areas for in-transit towers, cranes, and miscellaneous  
 16 construction equipment. Permanent facilities include turbine pads and towers, substation,  
 17 meteorological towers, Operations and Maintenance facility or facilities, and permanent access  
 18 roads. However, in Exhibit B, Section 3.8, the applicant stated that some construction laydown  
 19 yards may be maintained as construction laydown yards if requested by a landowner. In this  
 20 situation, the construction laydown yards would not be temporary impacts but permanent  
 21 impacts, and must be categorized as such, and included in the mitigation assessment and  
 22 requirements.

23

**Table FW-1: Potential Temporary and Permanent Impacts by Habitat Category and Type**

| <b>Wheatridge West Turbine Group</b>               |                        |                  |                       |                  |
|--|------------------------|------------------|-----------------------|------------------|
| <b>Category and Habitat Description</b>            | <b>Impacts (acres)</b> |                  |                       |                  |
|  | <b>Maximum Layout</b>  |                  | <b>Minimum Layout</b> |                  |
|  | <b>Temporary</b>       | <b>Permanent</b> | <b>Temporary</b>      | <b>Permanent</b> |
| <b>Category 2</b>                                  |                        |                  |                       |                  |
| Developed – Revegetated/Other<br>Planted Grassland | 106.9                  | 17.0             | 100.8                 | 14.4             |
| Grassland – Exotic Annual                          | 13.3                   | 1.7              | 7.8                   | 0.8              |
| Grassland – Native Perennial                       | 32.3                   | 5.5              | 34.9                  | 4.7              |
| Shrub-steppe – Basin Big Sagebrush                 | 2.5                    | 0.8              | 2.4                   | 0.8              |
| <b>Total</b>                                       | <b>155.5</b>           | <b>24.9</b>      | <b>146.4</b>          | <b>20.7</b>      |
| <b>Category 3</b>                                  |                        |                  |                       |                  |
| Developed – Revegetated/Other<br>Planted Grassland | 60.7                   | 8.0              | 66.5                  | 7.7              |
| Grassland – Native Perennial                       | 28.7                   | 5.5              | 25.8                  | 4.6              |
| Shrub-steppe –<br>Rabbitbrush/Snakeweed            | 2.1                    | 0.0              | 1.5                   | 0.0              |

<sup>250</sup> ASC, Exhibit P, Attachment P-1.

**Table FW-1: Potential Temporary and Permanent Impacts by Habitat Category and Type**

|   |                        |                  |                       |                  |
|---|------------------------|------------------|-----------------------|------------------|
| <b>Total</b>                            | <b>91.5</b>            | <b>13.5</b>      | <b>93.9</b>           | <b>12.3</b>      |
| <b>Category 4</b>                       |                        |                  |                       |                  |
| Grassland – Exotic Annual               | 11.6                   | 1.8              | 11.3                  | 1.7              |
| <b>Total</b>                            | <b>11.6</b>            | <b>1.8</b>       | <b>11.3</b>           | <b>1.7</b>       |
| <b>Subtotal for Cat. 2, 3, 4</b>        | <b>258.6</b>           | <b>40.3</b>      | <b>251.6</b>          | <b>34.7</b>      |
| <b>Category 6</b>                       |                        |                  |                       |                  |
| Developed – Dryland Wheat               | 533.3                  | 88.3             | 481.9                 | 73.6             |
| Developed – Other                       | 1.0                    | 0.3              | 0.9                   | 0.3              |
| <b>Total</b>                            | <b>534.3</b>           | <b>88.6</b>      | <b>482.8</b>          | <b>73.8</b>      |
| <b>Total for all Categories</b>         | <b>792.9</b>           | <b>128.9</b>     | <b>734.4</b>          | <b>108.5</b>     |
| <b>Wheatridge East Turbine Group</b>    |                        |                  |                       |                  |
| <b>Category and Habitat Description</b> | <b>Impacts (acres)</b> |                  |                       |                  |
|   | <b>Maximum Layout</b>  |                  | <b>Minimum Layout</b> |                  |
|   | <b>Temporary</b>       | <b>Permanent</b> | <b>Temporary</b>      | <b>Permanent</b> |
| <b>Category 2</b>                       |                        |                  |                       |                  |
| Grassland – Exotic Annual               | 17.2                   | 3.3              | 17.7                  | 3.2              |
| Grassland – Native Perennial            | 19.5                   | 2.6              | 20.2                  | 2.5              |
| <b>Total</b>                            | <b>36.7</b>            | <b>6.0</b>       | <b>37.9</b>           | <b>5.7</b>       |
| <b>Category 3</b>                       |                        |                  |                       |                  |
| Grassland – Native Perennial            | 14.4                   | 1.9              | 14.3                  | 1.8              |
| Shrub-steppe –<br>Rabbitbrush/Snakeweed | 12.1                   | 1.9              | 12.7                  | 1.6              |
| <b>Total</b>                            | <b>26.4</b>            | <b>3.8</b>       | <b>27.0</b>           | <b>3.4</b>       |
| <b>Category 4</b>                       |                        |                  |                       |                  |
| Grassland – Exotic Annual               | 7.8                    | 1.3              | 6.6                   | 1.0              |
| Grassland – Native Perennial            | 1.2                    | 0.2              | 1.5                   | 0.3              |
| Shrub-steppe –<br>Rabbitbrush/Snakeweed | 2.7                    | 0.3              | 1.4                   | 0.3              |
| <b>Total</b>                            | <b>11.7</b>            | <b>1.8</b>       | <b>9.4</b>            | <b>1.6</b>       |
| <b>Subtotal for Cat. 2, 3, 4</b>        | <b>74.8</b>            | <b>11.6</b>      | <b>74.3</b>           | <b>10.7</b>      |
| <b>Category 6</b>                       |                        |                  |                       |                  |
| Developed – Dryland Wheat               | 185.7                  | 29.9             | 190.9                 | 27.7             |
| <b>Total</b>                            | <b>185.7</b>           | <b>29.9</b>      | <b>190.9</b>          | <b>27.7</b>      |
| <b>Total for all Categories</b>         | <b>260.5</b>           | <b>41.5</b>      | <b>265.2</b>          | <b>38.4</b>      |
| <b>Intraconnection Corridor</b>         |                        |                  |                       |                  |
| <b>Category and Habitat Description</b> | <b>Impacts (acres)</b> |                  |                       |                  |
|   | <b>Longer Option</b>   |                  | <b>Shorter Option</b> |                  |
|   | <b>Temporary</b>       | <b>Permanent</b> | <b>Temporary</b>      | <b>Permanent</b> |
| <b>Category 2</b>                       |                        |                  |                       |                  |

**Table FW-1: Potential Temporary and Permanent Impacts by Habitat Category and Type**

|   |              |                          |              |            |
|---|--------------|--------------------------|--------------|------------|
| Developed – Revegetated/Other Planted Grassland | 11.5         | 0.1                      | 11.5         | 0.1        |
| Grassland – Exotic Annual                       | 3.0          | 0.0                      | 3.0          | 0.0        |
| Grassland – Native Perennial                    | 36.8         | 0.2                      | 36.8         | 0.2        |
| Shrub-steppe – Basin Big Sagebrush              | 0.7          | 0.0                      | 0.7          | 0.0        |
| Shrub-steppe – Rabbitbrush/Snakeweed            | 14.7         | 0.1                      | 14.2         | 0.1        |
| <b>Total</b>                                    | <b>66.7</b>  | <b>0.4</b>               | <b>66.2</b>  | <b>0.4</b> |
| <b>Category 3</b>                               |              |                          |              |            |
| Developed – Revegetated/Other Planted Grassland | 7.2          | 0.1                      | 3.2          | 0.0        |
| Grassland – Native Perennial                    | 6.7          | 0.0                      | 6.7          | 0.1        |
| Shrub-steppe – Basin Big Sagebrush              | 0.4          | 0.0                      | 0.0          | 0.0        |
| Shrub-steppe – Rabbitbrush/Snakeweed            | 2.5          | 0.0                      | 1.0          | 0.0        |
| <b>Total</b>                                    | <b>16.8</b>  | <b>0.1</b>               | <b>10.9</b>  | <b>0.1</b> |
| <b>Category 4</b>                               |              |                          |              |            |
| Grassland – Exotic Annual                       | 2.5          | 0.0                      | 1.9          | 0.0        |
| <b>Total</b>                                    | <b>2.5</b>   | <b>0.0</b>               | <b>1.9</b>   | <b>0.0</b> |
| <b>Subtotal for Cat. 2, 3, 4</b>                | <b>86.0</b>  | <b>0.5</b>               | <b>79.0</b>  | <b>0.5</b> |
| <b>Category 6</b>                               |              |                          |              |            |
| Developed – Dryland Wheat                       | 56.3         | 0.4                      | 33.4         | 0.3        |
| Developed – Irrigated Agriculture               | 1.0          | 0.0                      | 1.0          | 0.0        |
| Developed – Other                               | 0.6          | 0.0                      | 0.3          | 0.0        |
| <b>Total</b>                                    | <b>58.0</b>  | <b>0.4</b>               | <b>34.7</b>  | <b>0.2</b> |
| <b>Total for all Categories</b>                 | <b>144.0</b> | <b>0.9<sup>251</sup></b> | <b>113.7</b> | <b>0.7</b> |

1  
2 As shown in Table FW-1, the applicant calculated the maximum impact from permanent loss of  
3 habitat in Categories 2 through 4 to be 52.3 acres for all facility components (east and west  
4 turbine groups and the intraconnection corridor). The maximum impact of the facility from  
5 permanent loss within Category 6 habitat was estimated at 118.9 acres. Altogether, the  
6 maximum permanent footprint of proposed facility components would occupy 171.2 acres of

<sup>251</sup> Table FW-1 is replicated here from the ASC, Exhibit P. The applicant has not provided details regarding its habitat impact calculation methodology, such as the expected impacted acreage per transmission structure. In Exhibit B, the applicant describes that the intraconnection transmission line design has not yet been finalized; the final design could include one or two 230 kV overhead transmission lines, and the design could be monopole or wood H-frame. Structures could be spaced between 400 – 800 feet apart. As part of Fish and Wildlife Condition 1, the applicant must provide an updated Table FW-1, to be based on the final facility engineering design. The applicant must provide its impact assessment methodology as part of this condition, including assumed temporary and permanent impact acreage for each transmission structure, wind turbine, access road, and all other proposed facility components.

1 habitat in all categories, of which approximately 60 percent would occur in Category 6 habitat  
2 areas.

3  
4 Also shown on Table FW-1, the applicant estimated that a maximum of 419.4 acres of habitat in  
5 Categories 2 through 4 would be temporarily lost during facility construction. The maximum  
6 impact of the facility from temporary loss within Category 6 habitat was estimated at 778.0  
7 acres. Altogether, the maximum temporary habitat loss, for habitat in all categories, during  
8 proposed facility construction would be 1,197.4 acres, of which approximately 65 percent would  
9 occur in Category 6 habitat areas.

10

11 As explained in Section IV.A.1 *General Standard of Review* of this order, in order to reduce  
12 potential impacts to wildlife habitat, Mandatory Condition 6 would require that, following  
13 facility construction, the applicant must restore vegetation to the extent practicable and  
14 landscape all areas disturbed by construction in a manner compatible with the surrounding and  
15 proposed use. The applicant has included a draft concept of a revegetation plan as Exhibit P,  
16 Attachment P-2. This concept is included as Attachment C to this order. Completion and  
17 implementation of the revegetation plan is further discussed in the *Mitigation and Monitoring*  
18 section below.

19

20 In addition, in order to ensure that habitat impacts are appropriately categorized and that  
21 associated mitigation is adequate to meet the Fish and Wildlife Standard, the Council imposes  
22 the following condition requiring the applicant to conduct a pre-construction wildlife habitat  
23 assessment survey and submit an associated report to the department and ODFW.<sup>252</sup> This  
24 condition requires that the pre-construction survey report include an updated Table FW-1,  
25 indicating the acres to be temporarily and permanently impacted by the facility by habitat  
26 category and type and sub-type. The survey report must include updated maps showing all  
27 facility components and locations, including locations of access roads, and the habitat  
28 categories and types in the analysis area. Maps must be similar to Figures 3a-3c and 4a-4c as  
29 included in Exhibit P, Attachment P-1.

30

31 **Fish and Wildlife Condition 1:** Prior to final site design and facility layout, the certificate  
32 holder shall conduct a field-based habitat survey to confirm the habitat categories of all  
33 areas that will be affected by facility components, as well as the locations of any  
34 sensitive resources such as active raptor and other bird nests. The survey shall be  
35 planned in consultation with the department and ODFW, and survey protocols shall be  
36 confirmed with the department and ODFW. Following completion of the field survey,  
37 and final layout design and engineering, the certificate holder shall provide the  
38 department and ODFW a report containing the results of the survey, showing expected  
39 final location of all facility components, the habitat categories of all areas that will be  
40 affected by facility components, and the locations of any sensitive resources.

---

<sup>252</sup> In the proposed order, the department recommended the Council adopt administrative amendments to recommended Fish and Wildlife Condition 1 clarifying that the certificate holder, not the applicant, submit the required information.

1  
2 The report shall also include an updated version of Table FW-1 Potential Temporary and  
3 Permanent Impacts by Habitat Category and Type of the final order, showing the acres  
4 of expected temporary and permanent impacts to each habitat category, type, and sub-  
5 type. The pre-construction survey shall be used to complete final design, facility layout,  
6 and micrositing of facility components. As part of the report, the certificate holder shall  
7 include its impact assessment methodology and calculations, including assumed  
8 temporary and permanent impact acreage for each transmission structure, wind  
9 turbine, access road, and all other facility components. If construction laydown yards  
10 are to be retained post construction, due to a landowner request or otherwise, the  
11 construction laydown yards must be calculated as permanent impacts, not temporary.

12  
13 In classifying the affected habitat into habitat categories, the certificate holder shall  
14 consult with the department and ODFW. The certificate holder shall not begin  
15 construction of the facility until the habitat assessment, categorization, and impact  
16 assessment has been approved by the department, in consultation with ODFW. The  
17 certificate holder shall not construct any facility components within areas of Category 1  
18 habitat and shall avoid temporary disturbance of Category 1 habitat.

19  
20 In order to mitigate for impacts to wildlife habitat, the applicant proposed to implement a  
21 Habitat Mitigation Plan (HMP). The applicant's proposed draft HMP is included as Attachment B  
22 to this order, and is further addressed below. The pre-construction survey results would inform  
23 the HMP and confirm that appropriate mitigation is provided.

#### 24 25 *State Sensitive Wildlife*

26  
27 The applicant's field surveys identified multiple state sensitive wildlife species in the analysis  
28 area. Most of these species are bats, which are further discussed below. The white-tailed  
29 jackrabbit was also identified during field surveys. Signs of Washington ground squirrel, an  
30 ODFW Threatened species, were also detected during field surveys; potential facility-related  
31 impacts to the Washington ground squirrel are discussed in the Threatened and Endangered  
32 Species Standard section of this final order.<sup>253</sup>

33  
34 As explained in Exhibit P, impacts from facility construction and operation could result in loss of  
35 suitable breeding and foraging habitat for the white-tailed jackrabbit. However, based on  
36 observations at other operational wind farms within the area, the applicant asserted that this  
37 species does not seem to experience permanent displacement due to wind farm construction.<sup>254</sup>  
38 ODFW did not comment on this issue. To reduce the potential for direct mortality from vehicle  
39 collision, the applicant has proposed a speed limit for all vehicles on proposed facility roads. In a  
40 comment letter, ODFW recommended that a 20 mph speed limit be imposed on roads within

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<sup>253</sup> ASC, Exhibit P, p. 25.

<sup>254</sup> ASC, Exhibit P, p. 35.

1 the project area to reduce potential impacts to wildlife, particularly white-tailed jackrabbit and  
2 mule deer.<sup>255</sup> The draft proposed order recommended, based upon ODFW’s comments, that the  
3 Council impose a 20 mph speed limit on private and public roads within the project area, unless  
4 a higher speed limit was necessary for safe driving speed on public roads.<sup>256</sup> Morrow County  
5 commented on the record of the public hearing, questioning the EFSC jurisdiction to restrict  
6 speed limits on public roads. In response, the Council adopts the following condition, as  
7 amended in the proposed order:

8  
9 **Fish and Wildlife Condition 2:** During construction and operation, the certificate holder  
10 shall impose a 20 mile per hour speed limit on new and improved private access roads,  
11 which have been approved as a related and supporting facility to the energy facility. .  
12 The site boundary would be located within designated mule deer winter range. Mule deer  
13 winter range is categorized by ODFW as habitat Category 2. Category 2 habitat is considered  
14 “essential habitat for a fish or wildlife species, population, or unique assemblage of species and  
15 is limited either on a physiographic province or site-specific basis depending on the individual  
16 species, population or unique assemblage.”<sup>257</sup> Mule deer winter range is shown on Exhibit P,  
17 Figure P-1.

18  
19 As explained in ASC Exhibit P, impacts from facility construction and operation could include  
20 loss of suitable mule deer habitat. To avoid temporary displacement of wintering deer and  
21 impacts to this Category 2 habitat, the applicant proposes to restrict construction of proposed  
22 facility components during the winter season (December 1 through March 31) within areas  
23 designated mule deer winter range to the extent feasible. The applicant proposed to implement  
24 additional mitigation, such as habitat improvement (for example, revegetating grasslands),  
25 weed control, or spring development, during periods where construction activities cannot be  
26 limited during winter season.<sup>258</sup>

27  
28 In an agency comment letter on the complete ASC, ODFW recommended that the Wildlife  
29 Monitoring and Mitigation Plan include avoidance measures, such as limiting proposed facility  
30 construction within the mule deer winter range boundary to non-winter periods (i.e. limiting  
31 construction during December through March) to reduce the displacement impacts of the  
32 construction activities to wintering mule deer.<sup>259</sup> On the record of the public hearing, Steve  
33 Cherry/ODFW clarified that ODFW recommends allowance of approved mitigation for  
34 unavoidable impacts in circumstances where avoidance of Category 2 mule deer winter range

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<sup>255</sup> WRWAPPDoc31, Agency Comment ODFW, 08-20-2015. In a comment letter, ODFW recommended that a 20 mile an hour speed limit be imposed on the project area especially in the vicinity of any WGS areas.

<sup>256</sup> In the draft proposed order, recommended Fish and Wildlife Condition 2 stated, “During construction, the certificate holder shall impose a 20 mile per hour speed limit on private and public roads, unless higher speed limit is necessary for safe driving speed on public roads, within the project area.

<sup>257</sup> OAR 635-415-0025(2).

<sup>258</sup> ASC, Exhibit P, p. 36.

<sup>259</sup> WRWAPPDoc31, Agency Comment ODFW, 08-20-2015.



1 during winter is not feasible.<sup>260</sup> On the record of the June 6, 2016 public hearing, on behalf of  
2 the applicant, David Petersen acknowledged ODFW's comments and willingness to discuss  
3 available mitigation options for unavoidable impacts to mule deer winter range; however, the  
4 applicant did not request modification of the recommended condition.

5  
6 The Council's Fish and Wildlife Habitat standard and ODFW's Fish and Wildlife Mitigation Policy  
7 requires that, as the first step in the mitigation hierarchy for Category 2 habitat, impacts be  
8 avoided through alternatives to the proposed development action.<sup>261</sup> Restricting construction  
9 activities in mule deer winter habitat would provide avoidance, protection and reduction of  
10 impacts to this Category 2 habitat. The Council adopts the following condition, as presented in  
11 the draft proposed order without modification, requiring the applicant to restrict all  
12 construction in mule deer winter range during winter, defined as December 1 to March 31, to  
13 ensure compliance with the Council's Fish and Wildlife Habitat standard and to avoid impacts to  
14 mule deer winter range Category 2 habitat,.

15  
16 **Fish and Wildlife Condition 3:** No construction shall occur in mule deer winter range  
17 during winter, defined as December 1 to March 31. Mule deer winter range is based on  
18 data to be provided by ODFW at the time of construction.

19  
20 On the record of the June 6, 2016 public hearing, on behalf of Morrow County Court, the  
21 Morrow County Planning department requested removal of recommended Fish and Wildlife  
22 Condition 3 because the ODOE and ODFW assessment of the facility's impact to mule deer  
23 winter range, upon which the condition is based was conducted using ODFW, and not Morrow  
24 County, big game winter range habitat suitability assessment mapping. Based on Morrow  
25 County habitat maps, Morrow County explained that the facility would not impact any suitable  
26 mule deer habitat and therefore the condition would be unnecessary. Morrow County asserts  
27 that ODFW, by using big game winter range mapping that has not been adopted by Morrow  
28 County, is implementing rules and restrictions, "that may not be compatible with adopted  
29 regulations of a local jurisdiction." Therefore, Morrow County asserted, by using the ODFW big  
30 game winter range mapping, the department, and by extension the Council, were not observing  
31 the requirements for state and local government coordination pursuant to ORS 197.180.

32  
33 The department and ODFW have recommended the condition for purposes of compliance with  
34 the Council's Fish and Wildlife Habitat standard which in turn requires compliance with the  
35 ODFW Fish and Wildlife Habitat rules. Pursuant to ORS 197.180(13) rules, plans, or programs  
36 affecting land use are not compatible with an acknowledged land use plan if the state agency  
37 takes or approves an action that is not allowed in an acknowledged land use plan. However, as  
38 stated in statute, a state agency may apply rules to further restrict an action of an applicant if  
39 the state agency applies those rules to the uses planned for in the acknowledged  
40 comprehensive plan.<sup>262</sup> Limiting the construction timing for uses allowed outright and

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<sup>260</sup> WRWAPPDoc84 DPO Agency Comment ODFW\_2016-06-01.

<sup>261</sup> OAR 635-415-0025(2)(b)(A).

<sup>262</sup> ORS 197.180(13)

1 conditionally in the county's EFU zone to mitigate and protect habitat in order to comply with  
2 the Council's Fish and Wildlife Habitat standard, is not prohibited in Morrow County's  
3 acknowledged land use plan.

4  
5 ODOE relies upon the knowledge, experience, and input of ODFW when assessing a proposed  
6 facility's impact to fish and wildlife habitat under the Fish and Wildlife Habitat standard,  
7 including ODFW's knowledge of habitat types, species use of an area, and habitat  
8 categorization. In this case, ODFW provided the department and the applicant with its big game  
9 winter range habitat suitability mapping for the facility analysis area. The applicant used this  
10 information in developing ASC Exhibit P, and in its assessing compliance with the Council's Fish  
11 and Wildlife Habitat standard. Moreover, because the Council implements ODFW's fish and  
12 wildlife habitat mitigation policy and associated rules through the Council's Fish and Wildlife  
13 Habitat standard, ODFW has the opportunity to recommend appropriate habitat mitigation to  
14 comply with the Council standard and ODFW rules. Therefore, because the applicant's analysis  
15 of potential habitat impacts relied upon ODFW's big game winter range maps, the Council  
16 imposes Fish and Wildlife Habitat Condition 3 as presented in the draft proposed order.

17  
18 In addition to avoiding impacts during the winter season as required per Fish and Wildlife  
19 Condition 3, the applicant is required to provide compensatory mitigation for impacts to mule  
20 deer habitat. The applicant's proposed mitigation plan is described in Exhibit P and the draft  
21 HMP is included as Attachment B to this order.

### 22 23 Bat Species

24  
25 As described in Exhibit P, field surveys identified eight bat species in the analysis area. Of these  
26 species, four are state sensitive: hoary bat, silver-haired bat, California myotis, and long-legged  
27 myotis. According to the applicant, two additional species were identified that are federal  
28 species of concern but not state sensitive, the small-footed myotis and long-eared myotis.<sup>263</sup>

29  
30 The applicant's analysis indicated that the hoary bat and silvery-haired bat may be impacted by  
31 the facility through turbine collision, which is most likely to occur during the migration period  
32 (August through October). As discussed in Exhibit P, while the analysis area does not contain  
33 suitable breeding habitat for these two species, both are likely at moderate to high risk of  
34 fatality from collision with the facility.<sup>264</sup>

35  
36 The applicant's analysis indicated that the California myotis, small-footed myotis, long-eared  
37 myotis, and long-legged myotis generally fly at heights below rotor level and that no fatalities  
38 have been documented for these species at any Columbia Plateau wind energy facilities.  
39 Therefore, the applicant asserted that these species would not be at risk of fatality from

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<sup>263</sup> ASC, Exhibit P, p. 26.

<sup>264</sup> ASC, Exhibit P, p. 35.

1 construction or operation of the facility.<sup>265</sup> ODFW did not comment on this assessment and  
2 conclusion.

3  
4 As presented in the draft Wildlife Monitoring and Mitigation Plan (WMMP), the applicant  
5 proposed to conduct post-construction bat fatality monitoring to estimate whether bat  
6 fatalities due to facility operation are at or below the threshold of concern. These thresholds of  
7 concern have been used for multiple other EFSC-approved wind facilities in the Columbia  
8 Plateau. ODFW did not comment on the proposed threshold of concern for bat or avian species,  
9 or indicate that the proposed facility would require any revisions to that threshold.<sup>266</sup> As  
10 described in the draft WMMP, the Council may require additional mitigation if the fatality rate  
11 for bat species exceeds a level of concern.

12 To implement the monitoring program and ensure that appropriate mitigation is provided in  
13 accordance with the impact, the Council adopts the following condition, requiring the applicant  
14 to implement an approved WMMP, which would serve to minimize fatality risks to bat species  
15 (as well as other avian species).

16  
17 **Fish and Wildlife Condition 4:** Prior to construction, the certificate holder shall finalize  
18 and implement the Wildlife Monitoring and Mitigation Plan (WMMP) provided in  
19 Attachment D of this order, based on the final facility design, as approved by the  
20 department in consultation with ODFW.

- 21 a. The final WMMP must be submitted and ODOE's concurrence received prior to the  
22 beginning of construction. ODOE shall consult with ODFW on the final WMMP. The  
23 certificate holder shall implement the requirements of the approved WMMP during  
24 all phases of construction and operation of the facility.
- 25 b. The WMMP may be amended from time to time by agreement of the certificate  
26 holder and the Oregon Energy Facility Siting Council ("Council"). Such amendments  
27 may be made without amendment of the site certificate. The Council authorizes the  
28 Department to agree to amendments to this plan. The Department shall notify the  
29 Council of all amendments, and the Council retains the authority to approve, reject,  
30 or modify any amendment of the WMMP agreed to by the Department.

31

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<sup>265</sup> ASC, Exhibit P, p. 36.

<sup>266</sup> On the record of the June 6, 2016 public hearing, Ms. Gilbert/FGVR requested for the threshold of concern for bats be evaluated to ensure protection of bats which are becoming endangered or considered federally threatened. Ms. Gilbert/FGVR also provided materials related to white-nose syndrome occurring in bats within the western states and bat fatalities due to turbine collision. Because the Council's Fish and Wildlife Habitat standard requires the Council to find that the design, construction and operation of a facility is consistent with ODFW's habitat mitigation goals and standards, modifying the threshold of concern would be appropriately initiated by ODFW as the threshold is designed to protect species and not specific to habitat as covered under the Council's standard. Additionally, ODFW has not listed any bat species as threatened or endangered. WRWAPPDoc100 DPO Public Comment\_I. Gilbert 2016-06-06.

1 The draft WMMP is included as Attachment D of this order.<sup>267</sup>

2

3 Avian Species

4

5 The applicant's avian surveys detected eight state sensitive bird species, including Swainson's  
6 hawk, ferruginous hawk, peregrine falcon, greater Sandhill crane, long-billed curlew, burrowing  
7 owl, loggerhead shrike, and grasshopper sparrow. The applicant stated that direct fatality from  
8 turbine collision is a potential concern for Swainson's hawk and ferruginous hawk. The applicant  
9 stated that direct fatalities from turbine collision is a concern for golden eagle, though golden  
10 eagle is not a state sensitive species nor is it an ODFW listed threatened or endangered  
11 species.<sup>268</sup>

12

13 Species most at risk include those with the highest use of the proposed facility site and history  
14 of turbine collisions at wind facilities located within the Columbia Plateau ecoregion, which  
15 includes Swainson's hawk and ferruginous hawk. Swainson's hawk was the most abundant  
16 avian species identified by the applicant during surveys, which identified 26 active nests. While  
17 most suitable habitat is located outside of the analysis area, the applicant explains that this  
18 species is at moderate to high fatality risk from the proposed facility. Ferruginous hawk  
19 comprises 0.2% of the fatalities and 2.4% of the raptor fatalities recorded during scheduled  
20 searches at CPE wind projects for which fatality monitoring studies have been completed and  
21 made public. The applicant stated that while this represents a relatively low fatality rate, it is  
22 likely reflective of the species' low density in the region and not indicative of the susceptibility  
23 of individuals to turbine collision. Therefore, the applicant concluded that, construction and  
24 operation of the facility was assumed by the applicant to result in a low to moderate risk of  
25 fatality for this species.<sup>269</sup>

26

27 The applicant stated that fatalities of the greater Sandhill crane, long-billed curlew, burrowing  
28 owl, loggerhead shrike, and grasshopper sparrow from turbine collision are rare or have never

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<sup>267</sup> On the record of the public hearing, Steve Cherry/ODFW requested the following mitigation options be included in the draft WMMP to address the root cause of turbine-related avian fatalities: 1) shutdown of high-risk turbines either on demand or through use of temporary, seasonal/diurnal restrictions, and 2) raising the cut-in speed of turbine blades. On the record of the June 6, 2016 public hearing, on behalf of the applicant, D. Petersen stated that the draft concepts of the WMMP were developed in 2014 in agreement with ODFW with no previous mention of the above-referenced mitigation options and that curtailment is not a reasonable imposition. As presented in Attachment D (draft WMMP) of the final order, in response to a threshold of concern exceedance, the certificate holder shall implement mitigation as approved by the department that is designed to benefit the affected species group. Mitigation may include, but is not limited to, measures such as protection of nesting habitat and enhancement of a protected tract by weed removal and control. While each facility is evaluated based on its own facts, the department has not previously recommended seasonal/diurnal operating restrictions or raising the cut-in speed as appropriate measures to mitigate for a threshold of concern exceedance and would not consider these measures necessary to satisfy the Council's standard. WRWAPPDoc84 Agency Comment ODFW (S. Cherry) 2016-06-01; WRWAPPDoc85 Public Comment (Applicant) D. Petersen 2016-06-06.

<sup>268</sup> ASC Exhibit P, p. 30.

<sup>269</sup> ASC Exhibit P, pp. 30-31)

1 been found at other wind facilities within the Columbia Plateau ecoregion.<sup>270</sup> Moreover, the  
2 applicant concluded that there would not be significant population consequences for peregrine  
3 falcon, greater Sandhill crane loggerhead shrike and grasshopper sparrow based on low or no  
4 documented fatality at other wind facilities within the Columbia Plateau ecoregion, as well as  
5 siting of facility turbines away from suitable habitat and limited to no suitable habitat within  
6 the analysis area.<sup>271</sup> Additionally, condition Fish and Wildlife Condition 1 requires that the  
7 applicant conduct a pre-construction survey of sensitive resources such as bird nests and  
8 habitat, and to utilize these pre-construction survey results during final turbine micro-siting. This  
9 would further reduce potential facility impacts to avian species.

10  
11 The applicant's analysis indicated that facility construction and operation could result in loss of  
12 suitable habitat, disturbance of active breeding attempts during construction, and possible  
13 displacement from suitable breeding and foraging habitat for burrowing owl species. Similarly,  
14 the applicant's analysis indicated that long-billed curlews could experience adverse impacts  
15 from facility construction due to nest abandonment or disruption of brood-rearing if  
16 construction occurs in proximity to the species during the breeding season. The applicant  
17 determined that despite these risks, the facility was expected to have a low impact to both  
18 burrowing owl and long-billed curlews based on studies from other Columbia Plateau ecoregion  
19 wind facilities.<sup>272</sup> To reduce and mitigate the impacts, the applicant's proposed WMMP  
20 (Attachment P-4 to the Exhibit P) includes requirements and protocols for monitoring of facility  
21 impacts on avian species groups. The WMMP is required to be implemented through condition  
22 Fish and Wildlife Condition 4.

23  
24 The applicant proposed to conduct pre-construction surveys to identify changes in the location  
25 of state sensitive species, particularly nests of Swainson's hawk, ferruginous hawk, and  
26 burrowing owl (to avoid disturbance during nesting) that were identified during 2011 surveys.  
27 In an agency comment letter, ODFW recommended that a raptor nest survey be completed  
28 prior to construction and that the survey results help determine the final micro-siting of the  
29 proposed facility.<sup>273</sup> Fish and Wildlife Condition 1 would require a pre-construction survey, and  
30 the results of the survey used to finalize micro-siting of the facility components, as  
31 recommended by ODFW. The applicant also proposed in its WMMP to conduct long-term  
32 raptor nest surveys at 5-year intervals for the life of the facility; implementation of a finalized  
33 WMMP is required by Fish and Wildlife Condition 4.<sup>274</sup>

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<sup>270</sup> ASC Exhibit P, Attachment P-1, Table 11, is a consolidated list of the observed species composition and number of avian fatalities found at Columbia Plateau Ecoregion wind projects where fatality monitoring has been completed. The studied wind facilities are shown as a footnote to this table.

<sup>271</sup> ASC Exhibit P, pp. 33-34.

<sup>272</sup> ASC Exhibit P, pp. 33-34.

<sup>273</sup> WRWAPPDoc31, Agency Comment ODFW, 08-20-2015.

<sup>274</sup> WRWAPPDoc31, Agency Comment ODFW, 08-20-2015. In a comment letter, ODFW recommended that that long term raptor nest monitoring occur at five year intervals after the short term monitoring is completed on years one and four, and on years divisible by five (i.e. 2025, 2030, 2035, etc.) to try to develop a consistent survey period across the entire Basin.

1  
 2 If construction activities are scheduled to occur during the sensitive breeding season for  
 3 raptors, construction noise and human activity near active nests could adversely affect raptor  
 4 nesting or fledging success. The applicant proposed to impose seasonal restrictions on  
 5 construction activities, based on ODFW breeding season and distance standards for the  
 6 Columbia Plateau ecoregion.<sup>275</sup> To implement this measure, the Council adopts the following  
 7 condition, which requires the applicant to conform to the seasonal construction restrictions and  
 8 nest buffers.

9  
 10 **Fish and Wildlife Condition 5:** During construction within the time periods listed below,  
 11 the certificate holder shall implement buffer zones around nest sites of the species  
 12 listed below. No ground-disturbing activities within the buffer zone shall occur during  
 13 the seasonal restrictions. The construction workforce and facility employees must be  
 14 provided maps with the locations of the buffer zones and be instructed to avoid ground-  
 15 disturbing activity within the buffer zone during construction activities.

16

| Nesting Species       | Buffer Size (Radius Around Nest Site): | Avoidance Buffers in Effect from: |
|-----------------------|--|-----------------------------------|
| Western burrowing owl | 0.25 mile                              | April 1 to August 15              |
| Ferruginous hawk      | 0.25 mile                              | March 15 to August 15             |
| Swainson’s hawk       | 0.25 mile                              | April 1 to August 15              |

17  
 18 The applicant stated in Exhibit P that it is incorporating additional design features and  
 19 protective measures to reduce potential impacts to for avian species. The applicant stated that  
 20 it is utilizing existing roads as much as possible, burying collector lines to the extent feasible,  
 21 constructing overhead collector and transmission lines in accordance with the latest Avian  
 22 Power Line Interaction Committee (APLIC) design standards to reduce the risk of electrocution  
 23 to raptors in particular, and installing unguyed meteorological towers to reduce risk of avian  
 24 collision.<sup>276</sup> Utilizing existing roads as much as possible and undergrounding collector lines as  
 25 possible is required by the Council’s Cumulative Effects Standards for Wind Energy Facilities  
 26 (OAR 345-024-0015) and is further discussed in Section IV.P of this order. In order to implement  
 27 the other applicant-proposed measures, the Council adopts the following condition, requiring  
 28 the applicant construct overhead collector and transmission lines in accordance with the latest  
 29 APLIC standards and only install unguyed meteorological towers.

30  
 31 **Fish and Wildlife Condition 6:** The certificate holder shall construct all overhead  
 32 collector and transmission intraconnection lines in accordance with the latest Avian  
 33 Power Line Interaction Committee design standards, and shall only install permanent  
 34 meteorological towers that are unguyed.

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<sup>275</sup> ASC Exhibit P, p. 39.

<sup>276</sup> ASC Exhibit P, p. 38.

1 *Mitigation and Monitoring*  
2

3 The Council has previously approved site certificates for wind energy facilities before the final  
4 layout has been decided and the actual habitat impacts are known. This practice has allowed the  
5 wind energy industry to obtain construction financing before the final micrositing and design  
6 engineering decisions are made. Micrositing considerations include the size of the turbine  
7 selected and available for the facility, optimization of capture of the wind energy resource,  
8 geotechnical factors, avoidance of higher-value wildlife habitat, and reduction of adverse  
9 impacts on accepted farm practices in the area. The Council follows the same practice for the  
10 facility. Fish and Wildlife Condition 1, discussed above, requires the certificate holder to provide  
11 to the department a description of the final design layout of facility components and an updated  
12 assessment of the affected habitat prior to construction. The actual habitat impacts would be  
13 determined according to the final layout.  
14

15 As shown in Table FW-1, the applicant has estimated habitat impacts using a “worst-case”  
16 layout; using this layout, the facility would have both permanent and temporary impacts on  
17 habitat in Categories 2, 3, 4, and 6. Approximately 35 percent (472 acres) of permanent and  
18 temporary impacts would occur on habitat in Categories 2, 3, and 4, and 65 percent (897 acres)  
19 of the total permanent and temporary impacts would occur on Category 6 habitat. The applicant  
20 proposed to construct the facility in such a way as to avoid habitat and otherwise minimize  
21 temporary and permanent impacts to higher-quality habitat and to retain habitat cover in the  
22 general landscape.<sup>277</sup> To ensure habitat impacts are avoided and minimized, consistent with  
23 measures proposed by the applicant, the Council adopts the following conditions:  
24

25 **Fish and Wildlife Condition 7:** During construction, the certificate holder shall employ a  
26 qualified environmental professional to provide environmental training to all personnel  
27 prior to working onsite, related to sensitive species present onsite, precautions to avoid  
28 injuring or destroying wildlife or sensitive wildlife habitat, exclusion areas, permit  
29 requirements and other environmental issues. All personnel shall be given clear maps  
30 showing areas that are off-limits for construction, and shall be prohibited from working  
31 outside of the areas in the site boundary that have been surveyed and approved for  
32 construction. The certificate holder shall instruct construction personnel to report any  
33 injured or dead wildlife detected while on the site to the appropriate onsite  
34 environmental manager. Records of completed training shall be maintained onsite and  
35 made available to the department upon request.  
36

37 **Fish and Wildlife Condition 8:** Prior to construction, the certificate holder shall flag all  
38 environmentally sensitive areas as restricted work zones. Restricted work zones shall  
39 include but not be limited to areas with sensitive or protected plant species, including  
40 candidate species, wetlands and waterways that are not authorized for construction  
41 impacts, areas with seasonal restrictions, and active state sensitive species bird nests.  
42

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<sup>277</sup> ASC, Exhibit P, pp.37-40.

1           **Fish and Wildlife Condition 9:** During construction, the certificate holder shall employ at  
2 a minimum one environmental inspector to be onsite daily. The environmental  
3 inspector shall oversee permit compliance and construction, and ensure that known  
4 sensitive environmental resources are protected. The environmental inspector shall  
5 prepare a weekly report during construction, documenting permit compliance and  
6 documenting any corrective actions taken. Reports shall be kept on file and available for  
7 inspection by the department upon request.

8  
9 Additionally, impacts to fish and wildlife habitat would be further reduced by implementation  
10 of a fire prevention plan as described in Exhibit U and the Public Services section of this order,  
11 and a weed management plan, as required under Land Use Condition 6.

12  
13 On the record of the June 6, 2016 public hearing, Ms. Gilbert/FGRV provided her comments on  
14 the ASC submitted to the Umatilla County Planning Department in August 2015. These  
15 comments noted the applicant's failure to conduct wildlife monitoring of wetlands or riparian  
16 areas surrounding the wetlands.<sup>278</sup> As presented in Section IV.S. *Removal-Fill Law*, the applicant  
17 conducted a wetland-delineation study and determined that impacts to waters of the state  
18 would not occur during construction or operation of the facility; concurrence on the study  
19 results was received from DSL.

20  
21 The Council's Fish and Wildlife standard requires the Council to find that the design, construction  
22 and operation of a facility would be consistent with ODFW's habitat mitigation goals and  
23 standards. To ensure consistency with ODFW's habitat mitigation goals and standards, in the  
24 proposed order, the department recommended the Council impose Fish and Wildlife Condition 8  
25 establishing work zone restrictions within wetlands and waterways during construction. In  
26 addition, the proposed order recommended the Council impose Waste Minimization Condition  
27 1, which would ensure that potential off-site disposal sites used for excess soil would be  
28 inspected to ensure no significant adverse impact to wetlands or high quality habitats would  
29 occur. The Council agrees with the Department's recommended conditions, and imposes the  
30 conditions in the site certificate. Because any potential impacts to wetland and waterways  
31 within the site boundary would be avoided through implementation and compliance with the  
32 above referenced conditions, additional monitoring as requested by Ms. Gilbert/FGRV would not  
33 be necessary to satisfy any Council standard.

34  
35 In order to mitigate for permanent and temporary habitat impacts and to meet the Council's  
36 Fish and Wildlife Habitat standard, the applicant has proposed a HMP. The draft HMP is included  
37 as Attachment B to this order. As described in the HMP, the applicant proposed to establish a  
38 habitat mitigation area (HMA) to mitigate for the permanent and temporary impacts to habitat  
39 in Categories 2, 3, and 4.<sup>279</sup> The HMA would provide compensatory mitigation for habitat lost

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<sup>278</sup> WRWAPPDoc100 DPO Public Comment\_I. Gilbert 2016-06-06.

<sup>279</sup> ASC, Exhibit P, Attachment P-3. No impacts to Category 5 habitat have been identified by the applicant. Impacts to Category 6 habitat do not require compensatory mitigation; the mitigation goal for Category 6 habitat is to minimize impacts.



1 due to the footprint of permanent facility components within the facility site boundary and  
2 offset the temporal loss of habitat quality due to construction disturbance. The land in the HMA  
3 must be capable of achieving habitat quality matching or exceeding the habitat quality category  
4 of the land it is serving to mitigate. For example, impacts to Category 2 habitat must be  
5 mitigated with Category 2 habitat or better.  
6

7 The draft HMP includes a number of potential mitigation actions that could be implemented at  
8 the HMA to mitigate for facility impacts. The certificate holder would monitor the mitigation  
9 area to assess progress toward meeting success criteria. The applicant's proposed compensatory  
10 mitigation acreage is shown in the draft HMP, pages 3-5. The applicant has distinguished  
11 between Category 2 habitat based on its consultants' field surveys, and Category 2 habitat based  
12 on ODFW Category 2 big game winter range data and information, and the applicant proposed  
13 to provide a different degree of compensatory mitigation for these "types" of Category 2  
14 habitat. ODFW habitat mitigation policy and the EFSC Fish and Wildlife Habitat Standard do not  
15 distinguish between "types" of Category 2 habitat or have different mitigation requirements for  
16 different "types" of Category 2 habitat. The Fish and Wildlife Habitat Standard must be satisfied  
17 for all habitat categories, and there is no policy distinction between habitat that is categorized  
18 based on an applicant's field surveys, and habitat categorized based on existing ODFW data and  
19 information.  
20

21 For permanent impacts to habitat classified as Category 2 based on field surveys, the applicant  
22 proposed to provided compensatory mitigation at a 2:1 ratio, and for temporary impacts to the  
23 same habitat, mitigation at a "greater than 1:1 ratio," though a specific number is not provided.  
24 For permanent impacts to habitat classified as Category 2 based on ODFW winter range  
25 designation, the applicant proposes to provide compensatory mitigation at a "greater than 1:1  
26 ratio," and for temporary impacts, a 1:1 ratio. Compensatory mitigation for permanent impacts  
27 to Categories 3 and 4 habitat are proposed at 1:1 ratio, for temporary impacts to certain types of  
28 habitat, 0.5:1, and no compensatory mitigation for temporary impacts to other types of  
29 Category 3 and 4 habitat, as described in the draft HMP. ODFW reviewed the application  
30 including the HMP and did not provide specific comment on the habitat categorization or  
31 mitigation acreage and ratios discussed here.  
32

33 The HMP is in draft and must be finalized prior to construction. The finalized HMP must be  
34 approved by the department in consultation with ODFW prior to construction. In addition, the  
35 specific habitat enhancement actions to provide ecological and functional uplift must be

1 confirmed in the finalized HMP. As described in the draft HMP, the applicant has proposed a  
2 number of enhancement actions to be performed at the HMA, including:

- 3 • Livestock grazing will be restricted from the HMA to ensure that habitat is maximally  
4 useful to wildlife;
- 5 • The holder of the Site Certificate will work with the landowner to control or eradicate  
6 noxious weeds.
- 7 • Revegetation with native plants—sagebrush and bunch grasses—will occur in  
8 proportion to the acres of sagebrush and native grassland habitats lost through  
9 proposed facility construction.
- 10 • A plan for fire response and control will be in place and applied to the HMA.
- 11 • Where old barbed wire fence on the HMA presents potential problems for wildlife,  
12 the holder of the Site Certificate will work with the landowner to remove such  
13 fencing.
- 14 • Habitat protection will involve restricting any uses of the mitigation area that would  
15 be inconsistent with the goals of no net loss of habitats in Categories 2, 3, and 4 and a  
16 net benefit to Category 2 habitat quantity or quality.

17  
18 The Council adopts Fish and Wildlife Condition 10, requiring the applicant to finalize the HMP  
19 prior to construction. On the record of the public hearing, Steve Cherry/ODFW identified that  
20 the applicant proposed different levels of mitigation for different “types” of Category 2 habitat  
21 based on whether the habitat was considered Category 2 habitat or Category 2 big game  
22 habitat.<sup>280</sup> ODFW recommended revising the draft HMP, included as Attachment B to the  
23 proposed order, to include the same mitigation ratio for all Category 2 habitat and not use  
24 differing mitigation ratios for Category 2 big game habitat. As currently proposed in the draft  
25 HMP, the applicant would provide a 1:1 mitigation ratio for temporary impacts to Category 2  
26 habitat for big game winter range. ODFW commented that this would not meet the Council’s  
27 Fish and Wildlife standard for Category 2 habitat which requires no net loss of habitat quality or  
28 quantity plus net benefit of habitat quantity or quality. Steve Cherry/ODFW further expressed  
29 that the draft HMP does not include mitigation for temporary impacts to Category 4 habitat.  
30 ODFW recommended that the draft HMP include mitigation for temporal impacts to shrub-  
31 steppe Category 4 habitat.

32  
33 On the record of the June 6, 2016 public hearing, on behalf of the applicant, David Petersen  
34 argued that because recommended Fish and Wildlife Condition 10 would require the applicant  
35 to receive approval of a final HMP from the department in consultation with ODFW, inclusion of  
36 specific parameters within the draft HMP are not needed at this time. However, to ensure  
37 compliance with the Council’s Fish and Wildlife Habitat standard, the department  
38 recommended modification of Fish and Wildlife Condition 10 to specify that the final HMP shall  
39 include mitigation for temporary impacts to Category 4 habitat (shrub-steppe habitat) and  
40 mitigation for all Category 2 habitat impacts that meet the mitigation goal of no net loss of

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<sup>280</sup> WRWAPPDoc84 DPO Agency Comment ODFW\_2016-06-01.

1 habitat quality or quantity, plus a net benefit of habitat quality or quantity.<sup>281</sup> The Council agrees  
2 with the department's amendment to the recommended condition, and imposes Fish and  
3 Wildlife Condition 10.

4  
5 The final HMP must include updated habitat impact acreage and associated mitigation  
6 requirements, and specific details regarding the habitat enhancement actions to be performed  
7 at the HMA. The finalized HMP must also include a specific implementation schedule of habitat  
8 enhancement actions, and a specific monitoring program and success criteria:

- 9  
10 **Fish and Wildlife Condition 10:** Before beginning construction the certificate holder shall  
11 prepare and receive approval from the department of a final Habitat Mitigation Plan. The  
12 final Habitat Mitigation Plan shall be based on the final facility design and shall be approved  
13 by the department in consultation with ODFW. The Council retains the authority to approve,  
14 reject or modify the final HMP.
- 15 a. The final Habitat Mitigation Plan and the department's approval must be received  
16 prior to beginning construction. The department shall consult with ODFW on the final  
17 plan. The certificate holder shall implement the requirements of the approved plan  
18 during all phases of construction and operation of the facility.
  - 19 b. The certificate holder shall calculate the size of the habitat mitigation area according  
20 to the final design configuration of the facility and the estimated areas of habitat  
21 affected in each habitat category, in consultation with the department, as per the  
22 pre-construction survey results and impact assessment calculations called for in Fish  
23 and Wildlife Condition 1.
  - 24 c. The certificate holder shall acquire the legal right to create, enhance, maintain, and  
25 protect the habitat mitigation area, as long as the site certificate is in effect, by  
26 means of an outright purchase, conservation easement or similar conveyance and  
27 shall provide a copy of the documentation to the department prior to the start of  
28 construction. Within the habitat mitigation area, the certificate holder shall improve  
29 the habitat quality as described in the final Habitat Mitigation Plan.
  - 30 d. The final HMP shall include an implementation schedule for all mitigation actions,  
31 including securing the conservation easement, conducting the ecological uplift  
32 actions at the habitat mitigation area, revegetation and restoration of temporarily  
33 impacted areas, and monitoring. The mitigation actions shall be implemented  
34 according to the following schedule, as included in the HMP:
    - 35 i. Restoration and revegetation of temporary construction-related impact area  
36 shall be conducted as soon as possible following construction.
    - 37 ii. The certificate holder shall obtain legal authority to conduct the required  
38 mitigation work at the compensatory habitat mitigation site before  
39 commencing construction. The habitat enhancement actions at the

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<sup>281</sup> Recommended Fish and Wildlife Condition 10, as presented in the draft proposed order, contained (a) through (f). However, based upon ODFW's comments, the department recommended in the proposed order to add a new provision (f), resulting in re-lettering the requirements (a) through (g).

- 1                   compensatory habitat mitigation site shall be implemented concurrent with  
2                   construction.
- 3       e.       The final HMP shall include a monitoring and reporting program for evaluating the  
4               effectiveness of all mitigation actions, including restoration of temporarily impacted  
5               areas and ecological uplift actions at the habitat mitigation area.
- 6       f.       The final HMP shall include mitigation in compliance with the Council’s Fish and  
7               Wildlife Habitat standard, including mitigation for temporary impacts to Category 4  
8               habitat (shrub-steppe habitat); and, mitigation for all Category 2 habitat impacts that  
9               meet the mitigation goal of no net loss of habitat quality or quantity, plus a net  
10              benefit of habitat quality or quantity.
- 11      g.       The final HMP may be amended from time to time by agreement of the certificate  
12              holder and the Oregon Energy Facility Siting Council (“Council”). Such amendments  
13              may be made without amendment of the site certificate. The Council authorizes the  
14              Department to agree to amendments to this plan. The Department shall notify the  
15              Council of all amendments, and the Council retains the authority to approve, reject,  
16              or modify any amendment of this plan agreed to by the Department.

17

18   The exact location of the turbines is unknown; therefore, the applicant has requested approval  
19   of micro-siting corridors for turbine placement which is contemplated and allowed under the  
20   Council’s rules.<sup>282</sup> Therefore, by necessity, the HMP is approved in draft form and the plan is  
21   finalized when the total mitigation area is determined prior to construction. The finalization of  
22   the HMP prior to construction includes confirmation of habitat categories in consultation with  
23   ODFW and subject to approval by the department, and to a final mathematical calculation of  
24   acres to determine the habitat mitigation acreage based upon an approved calculation  
25   methodology.

26

27   As presented above, Fish and Wildlife Condition 10 requires that the certificate holder, prior to  
28   beginning construction, obtain approval from the department and ODFW of the final HMP. The  
29   condition also specifies that the certificate holder conduct a preconstruction review of habitat  
30   characteristics to make certain that the habitat categories identified at the time of site  
31   certificate approval remain accurate. Pursuant to ORS 469.402, the department must notify the  
32   Council of the adoption of the final plan and of all amendments to it, and the Council retains  
33   the authority to approve, reject or modify the final and any amendment to the plan.  
34   Notification of the final and any amendments to the HMP would appear on the agenda  
35   distributed for Council meetings. Therefore, members of the public included on the Council’s  
36   mailing list would be notified of and could review the exact nature of the final and any  
37   proposed plan amendment.

38

39   Impacts to wildlife habitat would be further reduced by the implementation of a revegetation  
40   plan. This is called for in Mandatory Condition 6 under the General Standard of Review section.

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<sup>282</sup> OAR 345-001-0010 defines a “micro-siting corridor” as a “continuous area of land within which construction of facility components may occur, subject to site certificate conditions.”

1 As previously discussed, the applicant has prepared a draft revegetation concept, included as  
2 Attachment C of this final order. The Council adopts the following condition, with minor  
3 administrative revisions included in the proposed order, requiring the applicant to finalize the  
4 revegetation plan prior to construction.<sup>283</sup>

5  
6 **Fish and Wildlife Condition 11:** Before beginning construction, the certificate holder shall  
7 prepare and receive approval of a final Revegetation Plan, provided as Attachment C to  
8 this order, from the department, in consultation with Umatilla and Morrow counties and  
9 ODFW. The certificate holder shall implement the requirements of the approved plan  
10 during all phases of construction and operation of the facility.

11  
12 Additionally, as discussed above, the proposed WMMP requires the certificate holder to  
13 implement a wildlife monitoring plan, and if warranted by the monitoring results, the  
14 department has the ability to require additional mitigation in order to ensure compliance with  
15 the Fish and Wildlife Habitat standard.

16  
17 Based on the applicant's analysis and representations, and on review of the information  
18 provided in Exhibit P of the ASC and other evidence in the record discussed above, and subject  
19 to compliance with the site certificate conditions, the Council finds that the design, construction,  
20 and operation of the facility, taking into account mitigation, are consistent with the fish and  
21 wildlife habitat mitigation goals and standards of OAR 345-415-0025.

## 22 Conclusions of Law

23  
24  
25 Based on the foregoing findings of fact and conclusions, and subject to compliance with the site  
26 certificate conditions, the Council finds that the facility complies with the Council's Fish and  
27 Wildlife Habitat standard.

## 28 **IV.I. Threatened and Endangered Species [OAR 345-022-0070]**

29  
30  
31 *To issue a site certificate, the Council, after consultation with appropriate state agencies, must*  
32 *find that:*

---

<sup>283</sup> On the record of the May 19, 2016 public hearing, Ms. Gilbert/FGRV requested that the Council impose a condition requiring quarterly monitoring of revegetation in areas impacted by construction and O&M activities. Recommended Fish and Wildlife Condition 11 would require the certificate holder to prepare and receive approval from the department, in consultation with Morrow and Umatilla counties and ODFW, of a final Revegetation Plan. Review and approval of the final Revegetation Plan would be based upon site specific conditions, revegetation measures, and typical monitoring schedules determined sufficient for measuring success. Attachment C of the final order includes the applicant's draft Revegetation Plan, which includes a proposed monitoring schedule following construction completion for year 1, year 3, year 5 and subsequent years if additional action is necessary to satisfy the established revegetation success criteria. Ms. Gilbert/FGRV does not explain why the monitoring schedule included in the draft Revegetation Plan is insufficient for evaluating revegetation efforts against the established success criteria nor does she provide a basis for imposing a quarterly monitoring schedule. WRWAPPDoc68 DPO Public Comment\_I Gilbert 2016-05-19.

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

5  
6           (a) Are consistent with the protection and conservation program, if any, that the  
7           Oregon Department of Agriculture has adopted under ORS 564.105(3); or

8  
9           (b) If the Oregon Department of Agriculture has not adopted a protection and  
10          conservation program, are not likely to cause a significant reduction in the likelihood  
11          of survival or recovery of the species; and

12  
13       (2) For wildlife species that the Oregon Fish and Wildlife Commission has listed as  
14       threatened or endangered under ORS 496.172(2), the design, construction and operation  
15       of the proposed facility, taking into account mitigation, are not likely to cause a  
16       significant reduction in the likelihood of survival or recovery of the species.

17  
18       **Findings of Fact**

19  
20       The Threatened and Endangered Species standard requires the Council to find that the design,  
21       construction, and operation of a facility is not likely to cause a significant reduction in the  
22       likelihood of survival or recovery of a fish, wildlife, or plant species listed as threatened or  
23       endangered by ODFW or Oregon Department of Agriculture (ODA). For threatened and  
24       endangered plant species, the Council must also find that a facility is consistent with an  
25       adopted protection and conservation program from ODA. Threatened and endangered species  
26       are those listed under ORS 564.105(2) for plant species and ORS 496.172(2) for fish and wildlife  
27       species. For the purposes of this standard, threatened and endangered species are those  
28       identified as such by either the Oregon Department of Agriculture or the Oregon Fish and  
29       Wildlife Commission.<sup>284</sup>

30  
31       The analysis area for threatened or endangered plant and wildlife species is the area within and  
32       extending five-miles from the site boundary. The applicant's assessment of the facility's  
33       compliance with the Threatened and Endangered Species standard was included as Exhibit Q.

34  
35       **Surveys and Results**

36  
37       In order to identify endangered, threatened, proposed, and candidate species, and species of  
38       concern that might occur within the analysis area, the applicant conducted searches of the  
39       ORBIC and USFWS databases for documented and predicted occurrences of rare, threatened,  
40       endangered plant and wildlife species likely to be found within the analysis area; the applicant

---

<sup>284</sup> 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.

1 explained that for golden and bald eagles, the records search was based on documented and  
2 predicted occurrences within a 10-mile buffer of the site boundary. The applicant used  
3 information from the database searches to inform plant and wildlife field surveys of the analysis  
4 area that were performed for special-status plants from May 11 to June 13, 2011, with  
5 subsequent visits on June 28, 2011 and July 25, 2011. In addition, the applicant conducted  
6 supplemental special-status plant surveys in 2012 and 2013. Special-status wildlife species  
7 surveys were conducted in March through June, 2011, with supplemental surveys conducted in  
8 2012 and 2013.<sup>285</sup> The rare plant and wildlife species survey reports were included in Exhibit P,  
9 Attachment P-1.

10  
11 The applicant's desktop and literature review identified four state or federally listed threatened  
12 or endangered species with the potential for occurrence within the analysis area, including one  
13 plant, one mammal, and two fish; Laurent's milkvetch, Washington ground squirrel, bull trout,  
14 and steelhead. Of these, the applicant stated that bull trout and steelhead have no potential for  
15 occurrence within the site boundary;<sup>286</sup> additionally, bull trout and steelhead are not  
16 considered threatened or endangered by ODFW and are therefore not considered in the  
17 Council's Threatened and Endangered Species standard.

18  
19 The applicant also explained in Exhibit Q that four ODA candidate plant species were identified  
20 as having potential for occurrence within the analysis area. These candidate species include  
21 dwarf suncup, disappearing monkeyflower, liverwort monkeyflower, and vernal pool mouse-tail.  
22 Subsequent field studies by the applicant did not detect any evidence of these four species.<sup>287</sup>  
23

24 As explained in Exhibit Q, Washington ground squirrels were detected on land associated with  
25 the Wheatridge West turbine group, the Wheatridge East turbine group, and the transmission  
26 intraconnection corridor.<sup>288</sup> Specific surveys for the listed fish species were not conducted  
27 because, as explained in Exhibit Q, there has not yet been any documented occurrence of any  
28 state or federal listed fish species within the site boundary; moreover, facility construction and  
29 operation would not result in temporary or permanent impacts to intermittent or perennial  
30 fish-bearing streams. One state-listed plant species, Laurent's Milkvetch, was found during the  
31 applicant's rare plant surveys.<sup>289</sup> As stated in Exhibit Q, no other threatened, endangered, or  
32 candidate plant or wildlife species were observed during field surveys.

## 33 Impact Assessment

### 34 *Wildlife Species*

35  
36  
37  
38 Washington ground squirrel is a state-listed endangered species. As described in Exhibit Q, the  
39 squirrels live in deep burrows for much of the year, and are present above-ground in significant

---

<sup>285</sup> ASC, Exhibit Q, pp. 5-6.

<sup>286</sup> ASC, Exhibit Q, p. 4.

<sup>287</sup> ASC, Exhibit Q, pp. 4 and 6.

<sup>288</sup> ASC, Exhibit Q, p. 6.

<sup>289</sup> ASC, Exhibit Q, p. 6.

1 numbers generally between February and June each year. The applicant recorded 124  
2 detections of Washington ground squirrel present within the facility survey corridors. There  
3 were 50 detections recorded within the survey corridor for the Wheatridge West turbine group,  
4 55 detections recorded within the survey corridor for the Wheatridge East turbine group, and  
5 19 detections recorded within the survey corridor for the intraconnection transmission line.

6  
7 As explained in Exhibit Q, recorded detections included single holes with scat present and large  
8 colonies where the species was both seen and heard. Washington ground squirrel areas of use  
9 as well as an area extending 785 feet from the area of use (in suitable habitat) are considered  
10 Category 1 habitat, and therefore no impact is allowed in this area under the ODFW Fish and  
11 Wildlife Habitat Mitigation Policy and the Council's Fish and Wildlife Standard. If the multiple-  
12 burrow area was active in a prior survey year, then Category 1 habitat includes the largest  
13 extent of the active burrow area ever recorded (in the current or any prior-year survey), plus a  
14 785-foot buffer.

15  
16 The applicant stated that facility construction and operation could impact the Washington  
17 ground squirrel. Impacts could include direct mortality from facility equipment and vehicle  
18 operation, loss of potential future suitable habitat, and wildfires.<sup>290</sup>

19 As described in Exhibit Q, the applicant has proposed a number of mitigation measures to  
20 reduce the potential impact to Washington ground squirrel and its habitat. These include siting  
21 the facility on developed habitat when possible, particularly dryland wheat fields, and  
22 conducting pre-construction surveys to confirm and avoid Category 1 habitat during micro-siting  
23 and construction.<sup>291</sup>

24  
25 Additionally, in order to reduce the potential impact to Washington ground squirrel, the  
26 applicant has proposed to conduct additional pre-construction surveys for Washington ground  
27 squirrel to confirm locations of the species and its habitat.<sup>292</sup> In two comment letters, ODFW  
28 agreed that additional pre-construction surveys for Washington ground squirrel should be  
29 conducted.<sup>293</sup> On the record of the June 6, 2016 public hearing, on behalf of Morrow County  
30 Court the Morrow County Planning department raised concern that recommended Threatened  
31 and Endangered Species Condition 1 appears to require annual surveying of Category 1  
32 Washington ground squirrel habitat through the date of construction commencement, even if  
33 construction is delayed.<sup>294</sup>

34  
35 On the record of the public hearing, Steve Cherry/ODFW requested modification of  
36 recommended Threatened and Endangered Condition 1 to specify that the protocol-level  
37 Washington ground squirrel survey results are only valid for three years and that any re-survey  
38 within that three-year window simply requires a refresh of the known squirrel colonies; after

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<sup>290</sup> ASC, Exhibit Q, p. 7.

<sup>291</sup> ASC, Exhibit Q, pp. 8-9.

<sup>292</sup> ASC, Exhibit Q, p. 10.

<sup>293</sup> WRWAPPDoc4, Completeness Memo, 02-04-2015 and WRWAPPDoc32, Agency Comment ODFW, 08-20-2015.

<sup>294</sup> WRWAPPDoc117 SAG Comment\_Morrow County 2016-06-06.



1 the three-year period, a complete resurvey of any potential WGS habitat within 1,000 feet of  
2 proposed ground disturbing activities is needed.<sup>295</sup> In response to these comments, the  
3 department recommended that the Council adopt the following condition, as amended,  
4 requiring the applicant to conduct a survey for Washington ground squirrel before beginning  
5 construction of the proposed facility; and to avoid any permanent or temporary disturbance in  
6 all areas of Category 1 Washington ground squirrel habitat.<sup>296</sup> The Council agrees with the  
7 department's recommendation and imposes Threatened and Endangered Species Condition 1  
8 as amended in the proposed order.

9  
10 **Threatened and Endangered Species Condition 1:** Prior to construction, the certificate  
11 holder shall determine the boundaries of Category 1 Washington ground squirrel  
12 habitat. The certificate holder shall hire a qualified professional biologist who has  
13 experience in detection of Washington ground squirrel to conduct pre-construction  
14 surveys using a survey protocol approved by the department in consultation with  
15 ODFW. The biologist shall survey all areas of suitable habitat within 1,000 feet of any  
16 ground disturbing activity. Ground disturbing activity refers to any potential impact,  
17 whether permanent or temporary. The protocol surveys shall be conducted in the  
18 active squirrel season (March 1 to May 31) prior to construction commencement. The

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<sup>295</sup> WRWAPPDoc84 Agency Comment (S. Cherry) 2016-06-01.

<sup>296</sup> In the draft proposed order, recommended Threatened and Endangered Species Condition 1 stated, "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 ODOE in consultation with ODFW. The biologist shall survey all areas of suitable habitat where permanent facility components would be located or where construction disturbance could occur. Except as provided in (a), the biologist shall conduct the protocol surveys in the active squirrel season (March 1 to May 31) prior to construction commencement and in the active squirrel seasons in subsequent years until the beginning of construction in suitable habitat.

The certificate holder shall provide written reports of the surveys to the department and to ODFW and shall identify the boundaries of Category 1 Washington ground squirrel habitat. The certificate holder shall not begin construction within suitable habitat until the identified boundaries of Category 1 Washington ground squirrel habitat have been approved by the department.

(a) The certificate holder may omit the WGS survey in any year if the certificate holder avoids all permanent and temporary disturbance within suitable habitat until a Washington ground squirrel survey has been completed in the following year and the boundaries of Category 1 habitat have been determined and approved based on that survey.

The certificate holder shall avoid any permanent or temporary disturbance in all Category 1 habitat. The certificate holder shall ensure that these sensitive areas are correctly marked with exclusion flagging and avoided during construction.

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

1 protocol survey is valid for three years. If construction begins within three years of  
2 conducting the protocol survey, but not within one year of the protocol survey, the  
3 certificate holder shall conduct a pre-construction survey only within areas of suitable  
4 Washington ground squirrel habitat where ground disturbing activity would occur.  
5

6 The certificate holder shall provide written reports of the surveys to the department and  
7 to ODFW and shall identify the boundaries of Category 1 Washington ground squirrel  
8 (WGS) habitat. The certificate holder shall not begin construction within suitable habitat  
9 until the identified boundaries of Category 1 WGS habitat have been approved by the  
10 department, in consultation with ODFW.  
11

12 The certificate holder shall avoid any permanent or temporary disturbance in all  
13 Category 1 WGS habitat. The certificate holder shall ensure that these sensitive areas  
14 are correctly marked with exclusion flagging and avoided during construction.  
15

16 In addition, Fish and Wildlife Condition 8 requires an onsite environmental inspector during  
17 construction of the facility. As noted by the applicant, a task of the environmental inspector  
18 would be to monitor construction to ensure that Washington ground squirrels have not  
19 migrated from areas where they were documented to areas of construction.<sup>297</sup>  
20

21 Finally, Threatened and Endangered Species Condition 2 requires the certificate holder to  
22 finalize and implement a WMMP (included in draft form as Attachment D to this proposed  
23 order). ODFW recommended that the WMMP include a long-term monitoring program for  
24 Washington ground squirrel to monitor and assess facility operational impacts to the species.<sup>298</sup>  
25 In order to incorporate the Washington ground squirrel monitoring program into the WMMP,  
26 the department recommended the Council adopt the following condition, requiring the  
27 applicant to incorporate a Washington ground squirrel monitoring program into the final  
28 WMMP, as reviewed and approved by the department in consultation with ODFW:  
29

30 **Threatened and Endangered Species Condition 2:** In accordance with Fish and Wildlife  
31 Condition 3, prior to construction, the certificate holder shall finalize and implement the  
32 Wildlife Monitoring and Mitigation Plan (WMMP) provided in Attachment D of this  
33 order, based on the final facility design, as approved by the department in consultation  
34 with ODFW. The final WMMP shall include a program to monitor potential impacts from  
35 facility operation on Washington ground squirrel. Monitoring shall be of any known  
36 colonies and shall be completed on the same schedule as the raptor nest monitoring for  
37 the facility. The monitoring surveys shall include returning to the known colonies to  
38 determine occupancy and the extent of the colony as well as a general explanation of  
39 the amount of use at the colony. If the colony is not found within the known boundary  
40 of the historic location a survey 500 feet out from the known colony will be conducted  
41 to determine if the colony has shifted over time. Any new colonies that are located

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<sup>297</sup> ASC, Exhibit P, Attachment P-1, p. 45.

<sup>298</sup> WRWAPPDoc32, Agency Comment ODFW, 08-20-2015.

1 during other monitoring activities, such as raptor nest monitoring surveys, shall be  
2 documented and the extent of those colonies should be delineated as well. These newly  
3 discovered colonies shall also be included in any future WGS monitoring activities.  
4

5 The Council concurs with the department's recommendations and imposes Threatened and  
6 Endangered Species Condition 2 as specified above. Subject to these conditions, the Council  
7 finds that the design, construction and operation of the facility are not likely to cause a  
8 significant reduction in the survival or recovery of the species.  
9

10 *Plant Species*

11  
12 Laurent's milkvetch is a State-listed threatened species. The applicant recorded two population  
13 detections, one within the Wheatridge West turbine group and one within the Wheatridge East  
14 turbine group. Potential adverse impacts to Laurent's milkvetch from facility construction and  
15 operation include direct mortality of plants, loss of potential future suitable habitat, and  
16 wildfires.<sup>299</sup>  
17

18 In Exhibit Q, the applicant committed to avoiding known populations of Laurent's milkvetch.<sup>300</sup>  
19 In order to avoid potential impacts to the species, the Council adopts the following condition,  
20 requiring the applicant to include in its pre-construction survey (as required by proposed Fish  
21 and Wildlife Condition 1) a specific survey for Laurent's Milkvetch, and to flag and avoid all  
22 areas where the species is located; and requiring that, if herbicides are used to control weeds,  
23 the certificate holder maintain a restriction buffer around known populations of the Laurent's  
24 milkvetch.  
25

26 **Threatened and Endangered Species Condition 3:** To avoid potential impacts to  
27 Laurent's milkvetch, the certificate holder must:

- 28 a. Conduct preconstruction plant surveys for Laurent's milkvetch. If the species is  
29 found to occur, the certificate holder must install protection flagging around the  
30 plant population and avoid any ground disturbance within this zone.  
31 b. Ensure that any plant protection zone established under (a) above is included on  
32 construction plans showing the final design locations.  
33 c. If herbicides are used to control weeds, the certificate holder shall follow the  
34 manufacturer's guidelines in establishing a buffer area around confirmed  
35 populations of Laurent's milkvetch. Herbicides must not be used within the  
36 established buffers.  
37

38 As the applicant stated in Exhibit Q and as required by Mandatory Condition 6 (revegetation of  
39 temporarily impacted areas), any potentially suitable but unoccupied Laurent's milkvetch  
40 habitat would be required to be restored. Additionally, Fish and Wildlife Condition 6 requires  
41 that environmental training be provided to all personnel prior to working onsite; a component

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<sup>299</sup> ASC, Exhibit Q, p. 7.

<sup>300</sup> ASC, Exhibit Q, pp. 10-11.

1 of this training would cover protection and avoidance of threatened and endangered species  
2 including Laurent’s milkvetch. Finally, Fish and Wildlife Condition 8 requires an onsite  
3 environmental inspector to oversee permit compliance and protection of sensitive  
4 environmental resources such as known populations of Laurent’s milkvetch.  
5

6 Based on the applicant’s representations and analysis, and subject to compliance with the  
7 conditions, the Council finds that the design, construction, and operation of the facility are not  
8 likely to cause a significant reduction in the likelihood of survival or recovery of Laurent’s  
9 milkvetch.

10  
11 **Conclusions of Law**

12  
13 Based on the foregoing findings of fact and conclusions, and subject to compliance with the site  
14 certificate conditions, the Council finds that the facility complies with the Council’s Threatened  
15 and Endangered Species standard.

16 **IV.J. Scenic Resources [OAR 345-022-0080]**

17  
18 *(1) Except for facilities described in section (2), to issue a site certificate, the Council*  
19 *must find that the design, construction and operation of the facility, taking into*  
20 *account mitigation, are not likely to result in significant adverse impact to scenic*  
21 *resources and values identified as significant or important in local land use plans,*  
22 *tribal land management plans and federal land management plans for any lands*  
23 *located within the analysis area described in the project order.*

24 \*\*\*301

25 **Findings of Fact**

26  
27 OAR 345-022-0080 requires the Council to determine that the design, construction and  
28 operation of the proposed facility will not have a “significant adverse impact” to any significant  
29 or important scenic resources and values in the analysis area. In applying the standard set forth  
30 in OAR 345-022-0080(1), the Council assesses the visual impacts of facility structures on  
31 significant or important scenic resources described in “local land use plans, tribal land  
32 management plans and federal land management plans for any lands located within the  
33 analysis area described in the project order.” For purposes of this rule, “local land use plans”  
34 includes applicable state management plans.

35  
36 The applicant provided evidence regarding potential impacts to scenic resources in Exhibit R of  
37 the ASC. The analysis area for the Scenic Resources standard is the area within and extending  
38 10-miles from the site boundary. The analysis area includes parts of two Oregon counties, seven  
39 Oregon municipalities, and land administered by the Bureau of Land Management (BLM),  
40 National Park Service (NPS), and Department of Defense (DoD). Table SR-1, *Important Scenic*  
41 *Resources Inventory*, below, presents the land management plans evaluated by the applicant to

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<sup>301</sup>The facility is not a special criteria facility under OAR 345-015-0310; therefore OAR 345-022-0080(2) is not applicable.

- 1 determine the presence of scenic resources within the analysis area. Based on the applicant's
- 2 review of applicable land use plans, there are no significant or important scenic resources within
- 3 the analysis area.

4

**Table SR-1: Important Scenic Resources Inventory**

| <b>Jurisdiction</b>                     | <b>Plan</b>  | <b>Scenic Resources Specified in Plan (Y/N)</b> | <b>Important or Significant Scenic Resources Identified in Analysis Area (Y/N)</b> |
|---|--|---|--|
| <b>Counties</b>                         |  |   |  |
| Morrow County                           | Morrow County Comprehensive Plan and Zoning Ordinance, as updated through 2011             | No  | No   |
| Umatilla County                         | Umatilla County Comprehensive Plan, as amended through 2010                                | Yes   | No   |
| <b>Cities</b>                           |  |   |  |
| City of Lone                            | City of Lone Comprehensive Plan (1987)   | No  | No   |
| City of Lexington                       | City of Lexington Comprehensive Plan (1979)  | No  | No   |
| City of Heppner                         | City of Heppner Comprehensive Plan (2004)  | No  | No   |
| City of Hermiston                       | City of Hermiston Comprehensive Plan, as amended through 2014                              | No  | No   |
| City of Stanfield                       | City of Stanfield Comprehensive Plan (1983) and Development Code (2003)                    | No  | No   |
| City of Echo                            | City of Echo Comprehensive Plan (2005) and Zoning Administrative Regulations (2010)        | No  | No   |
| <b>Tribal</b>                           |  |   |  |
| None applicable                         | None   | -   | -  |
| <b>Federal</b>                          |  |   |  |
| BLM, Vale District, Baker Resource Area | Baker Resource Management Plan (BLM 1989)  | Yes   | No   |
| NPS                                     | Management and Use Plan Update, Oregon National Historic Trail and Mormon Pioneer National | No  | No   |

**Table SR-1: Important Scenic Resources Inventory**

| Jurisdiction | Plan   | Scenic Resources Specified in Plan (Y/N) | Important or Significant Scenic Resources Identified in Analysis Area (Y/N) |
|--------------|--|--|---|
| DoD          | Integrated Natural Resource Management Plan and Integrated Cultural Resource Management Plan for Boardman Bombing Range (Naval Weapons System Training Facility), 2012 | No                                       | No  |
| USFS/ODOT    | Blue Mountain Scenic Byway Interpretive Management Plan  | Yes                                      | No  |

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Visual Features of the Proposed Facility

The tallest components of the facility are the turbine towers, and although these structures are the visual elements of the facility most likely to be visible from a distance, the visual impact diminishes with distance. Within the site boundary, the applicant proposed to construct up to 292 wind turbine towers. The maximum blade tip height (tower height plus blade length) would range from 433 feet to 476 feet. In addition, the applicant proposed up to 12 328-foot permanent meteorological towers, aboveground 230-kV transmission line structures up to 150-foot tall, aboveground collector line structures up to 60-foot tall, two O&M buildings, and up to three substations.

Visual Impact Assessment

As described above, based on the applicant’s review of applicable land use plans, there are no significant or important scenic resources within the analysis area. However, the applicant completed a visual impact assessment within the analysis area to evaluate potential visual impacts related to the change in existing visual character resulting from operation of the proposed facility. In Exhibit R, the applicant described four key observation points (KOPs) selected for evaluation of visual impacts, and completed visual simulations of proposed facility components for the KOPs. The applicant also conducted a Zone of Visual Influence (ZVI) analysis using Environmental Systems Research Institute ArcGIS software to identify jurisdictions where the proposed facility would be visible. The results of the visual impact analysis identified that facility components would have low to moderate visibility at the selected KOP locations, but that there was no management direction for preservation of views or scenic quality at any of the KOP locations.

In Exhibit R, the applicant proposed measures to reduce, avoid and otherwise mitigate adverse visual impacts from the proposed facility. The Council considers these proposed measures to be

1 binding representations. Accordingly, the Council adopts the following conditions requiring the  
2 measures proposed by the applicant, as follows:

3  
4 **Scenic Resources Condition 1:** To reduce visual impacts associated with lighting facility  
5 structures, other than lighting on structures subject to the requirements of the Federal  
6 Aviation Administration or the Oregon Department of Aviation, the certificate holder  
7 shall implement the following measures:

- 8 a. Outdoor night lighting at the collector substations and Operations and  
9 Maintenance Buildings must be
- 10 i. The minimum number and intensity required for safety and  
11 security;
  - 12 ii. Directed downward and inward within the facility to minimize  
13 backscatter and offsite light trespass; and
  - 14 iii. Have motion sensors and switches to keep lights turned off when  
15 not needed.

16  
17 **Scenic Resources Condition 2:** The certificate holder shall:

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

39  
40 In addition, the applicant proposed to implement a Revegetation and Weed Management Plan  
41 to reduce and avoid visual impacts resulting from vegetation clearing practices during  
42 construction; a condition requiring development and implementation of this plan is included in  
43 Section IV.H *Fish and Wildlife Habitat* of this order.

1 Based on the applicant’s representations and analysis, and subject to compliance with the  
2 conditions, the Council finds that the design, construction, and operation of the facility are not  
3 likely to result in significant adverse impact to any identified scenic resources and values.

4  
5 **Conclusions of Law**

6  
7 Based on the foregoing findings of fact and conclusions of law, and subject to compliance with  
8 the site certificate conditions, the Council finds that the facility complies with the Council’s  
9 Scenic Resources standard.

10  
11 **IV.K. Historic, Cultural and Archaeological Resources [OAR 345-022-0090]**

12  
13 *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the*  
14 *Council must find that the construction and operation of the facility, taking into account*  
15 *mitigation, are not likely to result in significant adverse impacts to:*

16  
17 *(a) Historic, cultural or archaeological resources that have been listed on, or would*  
18 *likely be listed on the National Register of Historic Places;*

19  
20 *(b) For a facility on private land, archaeological objects, as defined in ORS*  
21 *358.905(1)(a), or archaeological sites, as defined in ORS 358.905(1)(c); and*

22  
23 *(c) For a facility on public land, archaeological sites, as defined in ORS 358.905(1)(c),*

24  
25 (2) The Council may issue a site certificate for a facility that would produce power from  
26 wind, solar or geothermal energy without making the findings described in section (1).  
27 However, the Council may apply the requirements of section (1) to impose conditions  
28 on a site certificate issued for such a facility.<sup>302</sup>

29  
30 Under ORS 469.501(4), the Council may issue a site certificate without making the findings  
31 required by the standards discussed in this section. Nevertheless, the Council may impose site  
32 certificate conditions based on the requirements of this standard.

33  
34 **Findings of Fact**

35  
36 Section (1) of the Historic, Cultural and Archaeological Resources standard generally requires  
37 the Council to find that the proposed facility is not likely to result in significant adverse impacts  
38 to identified historic, cultural or archaeological resources. Under Section (2), the Council may  
39 issue a site certificate for a wind power facility without making findings with this section.  
40 However, the Council may impose site certificate conditions based on the requirements of this

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<sup>302</sup> The proposed facility is not a special criteria facility under OAR 345-015-0310; therefore OAR 345-022-0090(3) is not applicable.



1 standard. The applicant provided information regarding historic, cultural and archaeological  
2 resources in Exhibit S of the ASC.<sup>303</sup> The project order identifies the analysis area as all areas  
3 within the site boundary. There are no public lands located within the site boundary.  
4

5 The applicant contracted with the Cultural Resources Protection Program of the Confederated  
6 Tribes of the Umatilla Indian Reservation (CTUIR-CRPP) to conduct archaeological field and  
7 desktop surveys for the entire 13,097 acres within the site boundary. Qualified archaeologists  
8 from CTUIR-CRPP conducted a desktop survey of archaeological records maintained by SHPO  
9 relevant to the site of the proposed facility. The desktop survey included a file and literature  
10 search conducted at SHPO to identify potential historic, cultural, or archeological resources  
11 within the proposed site boundary and a 1-mile buffer outside the site boundary. Pedestrian  
12 surveys were carried out between October 28, 2013 and January 17, 2014.<sup>304</sup> As stated in  
13 Exhibit S of the ASC, archaeological field investigations were conducted in accordance with  
14 SHPO's *Guidelines for Conducting Field Archaeology in Oregon* (SHPO, 2007).  
15

16 As stated in Exhibit S, the desktop survey revealed four previously recorded archeological sites  
17 within one-mile of the site boundary, but none within the site boundary. The pedestrian field  
18 surveys recorded 21 archeological sites and isolated finds within the site boundary.  
19 Archaeological sites included rock cairns and other stacked rock features, historic farm  
20 equipment, and the Vey Ranch phone line. Isolated finds included single tertiary flakes,  
21 manganese glass bottle fragments, basalt biface fragment, scatters of artifacts, and lithic  
22 scatters.  
23

24 Of the 21 archaeological sites and isolated finds, eight were historic, seven were pre-contact,  
25 and six were isolated finds. CTUIR-CRPP recommended that seven of the 21 historic sites and  
26 isolated finds be found potentially eligible for inclusion on the National Register of Historic  
27 Places (NRHP).<sup>305</sup> In a comment letter, SHPO confirmed receipt of the applicant's archeological  
28 investigation report and concurred with the eligibility recommendations provided in the report  
29 and that the proposed facility, with implementation of appropriate avoidance measures, would  
30 not likely have an effect on any significant archeological objects or sites.<sup>306</sup>  
31

32 As stated in Exhibit S, the applicant proposed to design the portion of the proposed facility in  
33 Umatilla County in compliance with Umatilla County Development Ordinance Section  
34 152.616(HHH)(6)(a)(5) which establishes a 50-foot setback requirement for wind facilities from  
35 any known archeological, historical or cultural site of the CTUIR. The facility has been designed

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<sup>303</sup> Pursuant to OAR 345-021-0010(1)(s), information concerning the location of historic, cultural and archaeological resources and/or objects may be exempt from public disclosure under ORS 192.502(4) or 192.501(11). Therefore, the applicant submitted a confidential cultural resource report, designated Attachment S to Exhibit S.

<sup>304</sup> ASC, Exhibit S, p. 3.

<sup>305</sup> ASC, Exhibit S, Table S-1.

<sup>306</sup> WRWAPPDoc16, Agency Comment SHPO Concurrence Letter, 08-18-2014. In a comment letter received from SHPO, concurrence with the results of field surveys was provided.

1 to avoid impacts to all known archeological, historic and cultural resources deemed eligible or  
2 potentially eligible for NRHP listing. In addition, the applicant proposed the following measures  
3 to ensure that impacts are avoided:<sup>307</sup>

- 4
- 5 • Facility location adjustment: Project facilities have been sited away from identified
- 6 archeological resources, in coordination with the CTUIR;
- 7 • Environmental awareness training: cultural resources sensitivity training would be
- 8 required for personnel working on facility construction;
- 9 • Construction drawings: archeological resources would be identified on construction
- 10 drawings as ‘sensitive resource areas – no entry’;
- 11 • Exclusion flagging: archeological resources would be identified within 200 feet (61
- 12 meters) of planned construction and marked with exclusion fencing or other marking
- 13 demarcating a 98 foot (30 meter) buffer; and,
- 14 • Field compliance monitoring: archaeological monitors would be present during
- 15 construction in areas within 200 feet of archeological cultural resources recommended
- 16 as potentially eligible to the NRHP (Sites 103012A, 110409A, 111410A, 111414A and
- 17 010711A).
- 18

19 In accordance with OAR 345-022-0090(2),<sup>308</sup> the Council adopts the following conditions to  
20 reduce potential adverse impacts on historic, cultural, and archaeological resources:

21

22 **Historic, Cultural, and Archeological Resources Condition 1:** Before beginning  
23 construction, the certificate holder shall provide to the department a map showing the  
24 final design locations of all components of the facility, the areas that will be temporarily  
25 disturbed during construction and the areas that were surveyed in 2013-14 for historic,  
26 cultural, and archaeological resources.

27

28 **Historic, Cultural, and Archeological Resources Condition 2:** Before beginning  
29 construction, the certificate holder shall mark the buffer areas established under  
30 Historic, Cultural, and Archeological Resources Condition 3 for all identified historic,  
31 cultural, or archaeological resource sites (including those of unknown age) on  
32 construction maps and drawings as “no entry” areas. A copy of current maps and  
33 drawings must be maintained onsite during construction and made available to the  
34 department upon request.

35

36 **Historic, Cultural, and Archeological Resources Condition 3:** Immediately prior to  
37 construction activities, the certificate holder must flag or otherwise mark a 200-foot  
38 avoidance buffer around historic archaeological sites, as identified by the maps and  
39 drawings prepared in accordance with Historic, Cultural, and Archeological Resources

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<sup>307</sup> ASC, Exhibit S, pp. 10-11.

<sup>308</sup> Under OAR 345-022-0090(2), the Council may issue a site certificate for a facility that would produce power from wind without making the findings described in section (1). However, the Council may apply requirements of section OAR 345-022-0090(1) to impose conditions on a site certificate issued for a wind power facility.

1 Conditions 1 and 2. No disturbance is allowed within the buffer zones. For historic  
2 archaeological sites, an archeological monitor must be present if construction activities  
3 are required within 200-feet of sites identified as potentially eligible for listing on the  
4 National Register of Historic Places. The certificate holder may use existing private roads  
5 within the buffer areas but may not widen or improve private roads within the buffer  
6 areas. The no-entry restriction does not apply to public road rights-of-way within buffer  
7 areas. Flagging or marking should be removed immediately upon cessation of activities in  
8 the area that pose a threat of disturbance to the site being protected.  
9

10 **Historic, Cultural, and Archeological Resources Condition 4:** Before beginning  
11 construction, the certificate holder shall ensure that a qualified archeologist, as defined  
12 in OAR 736-051-0070, trains construction contractors on how to identify sensitive  
13 historic, cultural, and archaeological resources present onsite and on measures to avoid  
14 accidental damage to identified resource sites. Records of such training must be  
15 maintained onsite during construction, and made available to the department upon  
16 request.  
17

18 It is possible that construction activities could uncover previously unrecorded historic, cultural  
19 or archaeological resources. The applicant stated that if there is a discovery of any previously  
20 unidentified cultural resource, construction activities would cease within the immediate vicinity  
21 of the newly identified cultural resource pending evaluation by a qualified archeologist, and the  
22 appropriate state authorities would be notified. The Council adopts the following conditions to  
23 ensure that previously undiscovered sites are protected during construction and operation of  
24 the facility:  
25

26 **Historic, Cultural, and Archeological Resources Condition 5:** During construction, the  
27 certificate holder shall ensure that construction personnel cease all ground-disturbing  
28 activities in the immediate area if any archeological or cultural resources are found  
29 during construction of the facility until a qualified archeologist can evaluate the  
30 significance of the find. The certificate holder shall notify the department and the  
31 Oregon State Historic Preservation Office (SHPO) of the find. If ODOE, in consultation  
32 with SHPO, determines that the resource meets the definition of an archaeological  
33 object, archaeological site, or is eligible or likely to be eligible for listing on the National  
34 Register of Historical Places, the certificate holder shall, in consultation with the  
35 department, SHPO, interested Tribes and other appropriate parties, make  
36 recommendations to the Council for mitigation, including avoidance, field  
37 documentation and data recovery. The certificate holder shall not restart work in the  
38 affected area until the department, in consultation with SHPO, agree that the certificate  
39 holder has demonstrated that it has complied with archeological resources protection  
40 regulations.  
41  
42  
43  
44

1 **Conclusions of Law**

2  
3 Based on the foregoing analysis, and in accordance with OAR 345-022-0090(2), the Council  
4 imposes Historic, Cultural, and Archeological Resources Condition 1 through 5 in the site  
5 certificate to address the protection of historic, cultural, and archaeological resources at the  
6 facility site.

7  
8 **IV.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  
19 *(b) The degree of demand;*

20  
21 *(c) Outstanding or unusual qualities;*

22  
23 *(d) Availability or rareness;*

24  
25 *(e) Irreplaceability or irretrievability of the opportunity.*

26  
27 \*\*\*309

28  
29 **Findings of Fact**

30 The Recreation standard requires the Council to find that the design, construction and  
31 operation of a facility are not likely to result in significant adverse impacts to ‘important’  
32 recreational opportunities. Therefore, the Council’s Recreation standard applies to only those  
33 recreation areas that the Council finds “important” using the factors listed in the sub-  
34 paragraphs of section (1) of the standard. The project order identified the analysis area for the  
35 Recreation standard as the area within and extending five miles from the site boundary. The  
36 applicant provided evidence about potential impacts to recreation opportunities determined by  
37 the applicant to be important in Exhibit T of the ASC.

38  
39 OAR 345-022-0100 requires the Council to determine that the design, construction and  
40 operation of the proposed facility will not have a significant adverse impact to any recreational  
41 opportunities in the analysis area. OAR 345-001-0010(53) defines “significant” as:

---

<sup>309</sup> The proposed facility is not a special criteria facility under OAR 345-015-0310; therefore OAR 345-022-0100(2) is not applicable.

1  
2 “having an important consequence, either alone or in combination with other factors, based  
3 upon the magnitude and likelihood of the impact on the affected human population or  
4 natural resources, or on the importance of the natural resources affected, considering the  
5 context of the action or impact, its intensity and the degree to which possible impacts are  
6 caused by the proposed action. Nothing in this definition is intended to require a statistical  
7 analysis of the magnitude or likelihood of a particular impact.”  
8

9 To analyze the facility against this standard, the Council must first evaluate whether the  
10 identified recreational opportunity is important. The Council must then evaluate whether the  
11 design, construction or operation of the proposed facility could adversely impact the identified  
12 important recreational opportunity. If the proposed facility could adversely impact the  
13 resource, then the Council must consider the significance of the possible impact using the  
14 definition of significance above.  
15

16 In Exhibit T, the applicant identified 15 recreation opportunities within the analysis area and  
17 concluded, based on its evaluation of the criteria outlined in OAR 345-022-0100, that six  
18 recreation opportunities should be considered “important.” The applicant concluded that the  
19 remaining nine recreation opportunities within the analysis area did not meet the “important”  
20 criteria based on the applicant’s assessment as follows:  
21

- 22 • Willow Creek Dam/Reservoir: The Willow Creek Dam/Reservoir is a federally managed  
23 flood control dam with opportunities for fishing, boating and swimming although has  
24 experienced ongoing water quality issues, and subsequently low use demand. The dam  
25 is somewhat irreplaceable but is one of several in the region.  
26
- 27 • Hager Park: Hager Park is a city-owned park with a playground and open activity area,  
28 with low use demand.  
29
- 30 • Heritage Park: Heritage Park is a city-owned park with open space but no developed  
31 recreation facilities, with low use demand.  
32
- 33 • Heppner City Park: Heppner City Park is a city-owned park with a playground and  
34 restrooms, with low use demand.  
35
- 36 • Willow Creek RV Park: Willow Creek RV Park is a privately-owned commercial RV park  
37 with opportunities for utility hook-up, restrooms, showers, BBQ pits, picnic tables, tent  
38 camping, and a boat launch, with low to moderate use demand.  
39
- 40 • Willow Creek Country Club: Willow Creek Country Club is a privately-owned country  
41 club and golf course, with low to moderate use demand.  
42

- 1 • Social Ridge Access Area: Social Ridge Access Area is privately-owned land where land  
2 owners permit public hunting, with low to moderate use demand.  
3
- 4 • Bunker Hill Access Area: Bunker Hill Access Area is privately-owned land where land  
5 owners permit public hunting, with low to moderate use demand.  
6
- 7 • Rolling Hills Hunting Preserve: Rolling Hills Hunting Preserve is privately-owned land  
8 with uncommon commercial hunting opportunities for game birds, with low to  
9 moderate use demand.  
10

11 The Council concurs with the applicant that, based on the moderate to low demand and  
12 common, generally replaceable attributes of each of these recreation opportunities, none of  
13 these opportunities meet the criteria to be considered an important recreational opportunity.  
14

15 The applicant's analysis concluded that the following recreation areas should be considered  
16 "important" based on the Council's criteria:  
17

18 Federally Managed Areas:  
19

20 Oregon National Historic Trail High-Potential Segment  
21

22 As explained in Exhibit T, the Oregon Trail High-Potential Segment is designated as an Oregon  
23 National Historic Trail segment and is federally managed under the 1999 NPS Management  
24 Plan. The trail segment is located approximately 1.2 miles from the site boundary. The trail  
25 segment includes historic significance, presence of visible historic remnants, scenic quality, and  
26 relative freedom from intrusion. The applicant explained that the trail segment is irreplaceable,  
27 with a low rate of demand. The applicant proposed that the trail segment is an important  
28 recreational opportunity due to its management under a federal plan, special designation, its  
29 irreplaceable historic significance, and its rare views of historic remnants (i.e. intact wagon rut).  
30 The Council finds that the Oregon National Historic Trail High-Potential Segment is an important  
31 recreational resource as defined by OAR 345-022-0100(1) due to its management under a  
32 federal plan, special designation and irreplaceable qualities.  
33

34 Oregon Trail Well Spring Interpretive Site  
35

36 As explained in Exhibit T, the Oregon Train Well Spring Interpretive Site is designated as an  
37 Oregon National Historic Trail interpretive site and is federally managed under the 1999 NPS  
38 Management Plan. The interpretive site is located approximately 1.2 miles from the site  
39 boundary. The interpretive site offers views of intact wagon ruts, a graveyard and remains of a  
40 stage station with informational signage. As explained in Exhibit T, the interpretive site was an  
41 important, historically significant emigrant water source and campsite that is considered  
42 irreplaceable. The applicant identified the site as irreplaceable, with a low rate of demand. The  
43 applicant proposed that the interpretive site is an important recreational opportunity due to its  
44 management under a federal plan, special designation, and irreplaceable and rare views of an

1 intact wagon rut, graveyard, and remains of a stage station. The Council finds that the Well  
2 Spring Interpretive Site is an important recreational resource as defined by OAR 345-022-  
3 0100(1) due to its management under a federal plan, special designation and irreplaceable  
4 qualities.

5

#### 6 Echo Meadows Site

7

8 Exhibit T explained that the Echo Meadows site is managed by BLM as an Area of Critical  
9 Environmental Concern (ACEC) and is designated as an Oregon National Historic Trail  
10 interpretive site. The site is located approximately 2.7 miles from the site boundary. As  
11 explained in Exhibit T, the site offers views of historically significant intact wagon ruts, along  
12 with interpretive signs about the area and its history. The applicant identified that the site is  
13 irreplaceable, with a low rate of demand. The applicant identified the site as an important  
14 recreational opportunity due to its management under a federal plan, special designation, and  
15 it's irreplaceable and rare views of intact wagon ruts. The Council finds that the Echo Meadows  
16 site is an important recreational resource as defined by OAR 345-022-0100(1) due to its  
17 management under a federal plan, special designation and irreplaceable qualities.

18

#### 19 *State Managed Areas*

20

#### 21 OR-74

22

23 In Exhibit T, the applicant explained that OR-74 is a state highway route segment within the  
24 Blue Mountain Scenic Byway, designated as an Oregon State Scenic Byway and managed under  
25 the United States Forest Service's (USFS) 1993 Blue Mountain State Scenic Byway management  
26 plan. The route segment is located approximately 2.6 miles from the site boundary and  
27 traverses approximately 21 miles within the analysis area. The route segment offers diverse  
28 scenery including those of historic towns, a national forest, rocky peaks, and streams. The  
29 applicant stated that the route segment within the analysis area is somewhat irreplaceable,  
30 with a moderate rate of demand. The applicant proposed that the route segment is an  
31 important recreational opportunity due to its management under a federal plan and special  
32 designation as an Oregon State Scenic Byway. The Council finds that the OR-74 route segment  
33 within the analysis area designated as an Oregon State Scenic Byway is an important  
34 recreational resources as defined by OAR 345-022-0100(1) due to its special designation as well  
35 as its somewhat irreplaceable qualities and moderate rate of demand.

36

#### 37 *Local Governments*

38

#### 39 Morrow County Fairgrounds

40

41 In Exhibit T, the applicant explained that the Morrow County Fairgrounds is a county fairground  
42 that includes a large riding/competition ring, stockyards, barns, grandstand, multipurpose sport  
43 field and other facilities. The fairgrounds are located approximately 3 miles from the site  
44 boundary. The applicant identified that the fairgrounds are uncommon within the county, with

1 a moderate rate of demand. The applicant proposed that the fairgrounds are an important  
2 recreational opportunity because they are uncommon and provide a location for the County  
3 Fair and other agricultural- and ranching-related events that are important aspects of social and  
4 business life within the community. The Council finds that Morrow County Fairgrounds are an  
5 important recreational resource as defined by OAR 345-022-0100(1) due to their rareness and  
6 moderate rate of demand.

7  
8 Willow Creek Water Park  
9

10 As explained in Exhibit T, Willow Creek Water Park is a city-owned public pool with recreational  
11 opportunities for swimming. The pool is located approximately 3 miles from the site boundary.  
12 The applicant identifies that the pool is uncommon within the community, with a moderate  
13 rate of demand. The applicant contended that the pool is an important recreation opportunity  
14 because it is uncommon within the region. While the recreational opportunity offers  
15 opportunities for swimming, the Willow Creek Dam/Reservoir located within the analysis area  
16 also offers opportunities for swimming. Therefore, it does not appear that public swimming  
17 opportunities are rare within the region, and the Council does not agree that that the water  
18 park satisfies the criteria to be an important recreational opportunity as defined in OAR 345-  
19 022-0100(1) based solely on that factor. However, in the alternative, the Council includes it in  
20 the evaluation of compliance with the Council's Recreation Standard.

21  
22 *Impacts to Important Recreational Opportunities*  
23

24 OAR 345-021-0010(1)(t) requires the applicant to evaluate potential impacts to important  
25 recreational opportunities based on both direct and indirect loss, and on noise, traffic and  
26 visual impacts resulting from construction and operation of the proposed facility. OAR 345-022-  
27 0100(1) requires that the Council find that the construction and operation of the facility, taking  
28 into account mitigation, are not likely to result in a significant adverse impact to important  
29 recreation opportunities.

30  
31 *Direct Loss*  
32

33 A direct loss occurs when construction or operation of a proposed facility would impact a  
34 recreational opportunity by directly altering the resource so that it no longer exists in its  
35 current state. The facility, which is located entirely on private property, would not be located  
36 on or within any of the important recreational opportunities identified above. Therefore, the  
37 Council finds that the facility would not result in direct loss of any of the recreational  
38 opportunities identified as important.

39  
40 *Indirect Loss*  
41

42 The Council evaluates the potential indirect loss based potential noise, traffic, and visual  
43 impacts resulting from construction and operation of the facility.  
44



1 *Noise*

2

3 As explained in Exhibit X of the ASC, and as discussed in Section IV.R, *Noise Control Regulations*  
4 of this order, construction of the facility would result in short-term increases in noise levels. As  
5 discussed further in Section IV.R, the DEQ noise rules address compliance at identified “noise  
6 sensitive receptors.” The recreational opportunities closest to the facility site boundary are not  
7 designated noise-sensitive receptors. Therefore, there are no applicable noise requirements  
8 contained in the DEQ noise regulations addressed at OAR Chapter 340, Division 25. However,  
9 the applicant’s evaluation of compliance with these regulations is relevant in considering the  
10 potential impacts of the proposed facility on recreational opportunities in the analysis area.

11

12 As discussed in more detail in Section IV.R, under the noise regulations at OAR 340-035-0035,  
13 the facility is considered a new “industrial or commercial noise source on a previously unused  
14 industrial or commercial site.” As allowed for a “wind energy facility,” under OAR 340-035-  
15 0035(1)(b)(B), the applicant may assume that the “L50” ambient sound level is 26 A-weighted  
16 decibels (dBA) when demonstrating that the facility would not exceed the 10 dBA “ambient  
17 degradation” limit.

18

19 The closest recreational opportunities identified as “important” to the facility are the Oregon  
20 Trail High-Potential segment and the Oregon Trail Well Spring Interpretive Site located  
21 approximately 1.2 miles from the site boundary. Noise generated during construction of the  
22 facility would be short-term and intermittent and would not exceed 34 dBA at the closest  
23 recreation opportunities. Exhibit T states that noise levels of 34 dBA would be comparable in  
24 volume to a quiet library. Based on the noise analysis conducted for the facility, worst-case  
25 operational noise from the proposed facility, including wind turbine generators and the 230-kV  
26 intraconnection transmission line(s), would be as high as 31 dBA. The remaining four  
27 recreational opportunities identified as important would be located greater than two miles  
28 from the site boundary and therefore would experience lesser worst-case noise levels due to  
29 attenuation of 26 dBA or less during facility operations. As stated in Exhibit T, a noise level of 31  
30 dBA is comparable in volume to a whisper and could be discernable from background noise  
31 when wind is blowing.

32

33 Due to the distances between the closest “important” recreational opportunities and the  
34 facility and associated noise attenuation, the Council finds that the noise generated by the  
35 construction and operation of the facility is not likely to result in significant adverse noise  
36 impacts to any of the recreational opportunities identified as “important.”

37

38 *Traffic*

39

40 Interstate Highway 84 (I-84) and Oregon Highway 207 (OR-207) are the primary access corridors  
41 that would be used during construction and operation of the facility. As explained in Exhibit U  
42 of the ASC, major county roads that may be temporarily affected by traffic increases from  
43 construction vehicles accessing the site include: Bombing Range Road, Big Butter Creek Road,

1 Little Butter Creek Road, Baseline Road, Juniper Lane, Strawberry Lane, and Sand Hollow Road  
2 in Morrow County.

3  
4 The applicant stated in Exhibit T that access to the Oregon Trail Well Spring Interpretive Site  
5 and Echo Meadows/Oregon Trail ACEC could be impacted from temporary traffic increases  
6 during construction of the facility. The applicant identified that access to the Well Spring  
7 Interpretive Site from the east most likely involves travel on OR-207 and/or Bombing Range  
8 Road and Little Juniper Canyon Road; all of these would be used during construction of the  
9 proposed facility.

10  
11 The applicant explained that access to the Echo Meadows site is primarily from a gravel road  
12 extending north from Oregon Trail Road, which intersects with I-84 to the east at Echo, and  
13 with OR-207 to the west. The gravel road continues north past the proposed facility site and  
14 joins with several other east-west gravel roads, e.g. Curtis Road, that in turn access OR-207 or  
15 wind eastward toward Echo or Stanfield. The applicant further explained that Oregon Trail Road  
16 and OR-207 would be most affected during the morning peak hours, when visitors are unlikely  
17 to arrive at the Echo Meadows site; for the remainder of the day truck trips would be sporadic  
18 and unlikely to cause any delays.

19  
20 The applicant concluded that the volume of construction traffic on roads also used to access  
21 the Oregon Trail Well Spring Interpretive Site and Echo Meadows/Oregon Trail ACEC would be  
22 unlikely to materially affect the operation of this intersection, and states that the applicant  
23 would work with ODOT and the counties to provide any necessary traffic controls. In addition,  
24 as presented in Exhibit U, construction of the facility would not cause an appreciable reduction  
25 in Level of Service (LOS) on any roads in the area.

26  
27 During operation of the facility, 10 to 20 staff would be employed thus generating a small  
28 number of vehicle trips on a roadway system with low traffic volumes.<sup>310</sup> Therefore, expected  
29 traffic impacts to “important” recreation opportunities in the analysis area during operation of  
30 the facility would be minimal.

31 Based on the applicant’s analysis of the traffic impacts, the Council finds that the traffic  
32 generated by the construction and operation of the facility is not likely to result in significant  
33 adverse impacts to any of the recreational opportunities identified as “important.”

34  
35 *Visual Impacts*

36  
37 To analyze visual impacts resulting from the proposed facility, the applicant conducted a ZVI, or  
38 viewshed, analysis. Based upon that analysis, the applicant determined that some portions of  
39 the facility would be visible from four of the six important recreation opportunities including:

---

<sup>310</sup> ASC, Exhibit T, p. 16.

1 Oregon National Historic Trail, Well Spring Interpretive Site, Echo Meadows/Oregon Trail ACEC,  
2 and Blue Mountain Scenic Byway.<sup>311</sup>

3  
4 For the visual analysis, the potential visibility of turbines was based on an assumed 110 percent  
5 maximum blade tip height ranging from 474 to 525 feet, depending on the turbine model  
6 option selected. Potential visual impacts from the proposed facility at these four recreational  
7 opportunities are evaluated further below.

8  
9 Blue Mountain Scenic Byway

10  
11 The ZVI analysis for the Blue Mountain Scenic Byway indicates that fewer than 20 turbines  
12 would be visible at limited points along the highway at middle- to background viewing distances  
13 of at least 3 miles. The applicant explained that there is no management direction for  
14 preservation of views or scenic quality related to the private lands on which the proposed  
15 facility would be located and through which the byway runs. As explained in Exhibit T, views of  
16 the facility would not compromise the integrity of the Scenic Byway route; would not affect way  
17 finding between the towns and sites along the route; would have no direct impacts to the  
18 historic properties or historic districts for which the towns are known; and would not affect  
19 programs or activities at the destination sites geared toward increasing tourism along the  
20 Byway. Therefore, significant adverse visual impacts from the facility would not be expected at  
21 this important recreation opportunity.

22  
23 Oregon National Historic Trail

24  
25 The ZVI analysis for the Oregon National Historic Trail indicates that more than 150 turbines  
26 would be visible depending on location along the route. As explained in Exhibit T, the trail  
27 segment is neither considered nor managed as a significant or important scenic resource. The  
28 applicant asserted that the overall visual impact would be negligible because there are virtually  
29 no viewers to be affected and the existing viewshed contains wind turbines and other industrial  
30 infrastructure.

31  
32 Oregon Trail Well Spring Interpretive Site

33  
34 The ZVI analysis for the Oregon Trail Well Spring Interpretive Site indicates that 50 to 150  
35 turbines would be visible from a middle ground distance of approximately 1.2 miles. However,

---

<sup>311</sup> On the record of the public hearing, Mr. G. Harrison indicated a concern related to visual impacts of the proposed facility's turbines, roads, and other disturbances on the Willow Creek Campground and Fourmile Canyon, which were not identified by the applicant in ASC Exhibit T as recreation areas within the analysis area. On the record of the June 6, 2016 public hearing, on behalf of the applicant D. Petersen stated that the Willow Creek Campground was located at least 15 miles away from the closest site boundary location, not within the analysis area. Based on the department's evaluation, Fourmile Canyon is located west of Cecil, which as presented in ASC Exhibit C Figure C-3, and would not be located within the analysis area. The department further noted that visual impacts from recreation opportunities located outside of the analysis area, defined as within and extending 5-miles from the site boundary, are not required to be evaluated in an ASC. WRWAPPDoc72 DPO Public Comment\_G. Harrison 2016-05-19; WRWAPPDoc85 Public Comment (Applicant)\_D. Petersen 2016-06-06.

1 the applicant explained that turbines would not intervene in views northward from the Well  
2 Spring kiosk to the remaining evidence of the trail within the Bombing Range. The remaining  
3 evidence of the Oregon Trail at the Well Spring site would not be disturbed by proposed facility  
4 turbines, allowing visitors to continue their enjoyment of the history of the site. Moreover, the  
5 site is managed to maintain the history and historic artifacts associated with the Oregon Trail,  
6 rather than for its scenic qualities. The applicant stated that there is no management direction  
7 for preservation of views or scenic quality related to the lands on which the site or the  
8 proposed facility is located. Therefore, significant adverse visual impacts from the facility would  
9 not be expected at this important recreation opportunity.

10  
11 Oregon Trail Area of Critical Environmental Concern (ACEC), Echo Meadows

12  
13 The ZVI analysis for the Oregon Trail ACEC, or Echo Meadows, indicates that 50 to 150 turbines  
14 would be visible from 2.3 to 6.2 miles from the viewpoint (KOP 3) (2.8 to 6.7 miles from the  
15 ACEC); the nearest turbines would be at least 3.1 miles from the remaining Oregon Trail ruts  
16 within the site. The applicant explained that existing views include evident vertical  
17 modifications including a power line, irrigation pivots, and existing wind turbines in the  
18 background, and the viewing distance is relatively long, reducing the apparent size of the  
19 turbines. The facility would not generate emissions or plumes that could cause a visual impact.

20  
21 On the record of the public hearing, Mr. G. Harrison raised issues regarding the visual impact of  
22 the proposed facility's turbines, roads, and other disturbances on protected areas including  
23 Echo Meadows and the historic Oregon Trail.<sup>312</sup> As stated above, the Protected Areas standard  
24 requires the Council to find that, taking into account mitigation, the design, construction and  
25 operation of a facility are not likely to result in significant adverse impacts to 'important'  
26 recreational opportunities. The Council's standard requires a finding that a proposed facility is  
27 not likely to have a significant adverse impact, but does not require a finding that a proposed  
28 facility is unlikely to have any adverse impacts. As explained in Exhibit T, this site receives fairly  
29 low levels of public use and contains no facilities beyond the paved trail and some information  
30 signs. The applicant stated that there is no management direction for preservation of views or  
31 scenic quality applicable to the lands on which the proposed facility is located. Therefore,  
32 significant adverse visual impacts from the facility would not be expected at this important  
33 recreation opportunity.

34  
35 Because of the distance between the important recreational opportunities (ranging from 1.2 to  
36 2.6 miles) and the proposed facility, the short route or trail segment for which turbines would  
37 be visible, as well as the existing visual character of the region and the lack of emissions or  
38 plumes, the department agrees that the construction and operation of the proposed facility  
39 would not likely result in a significant adverse visual impacts to any of the important  
40 recreational opportunities within the analysis area. Scenic Resources Condition 1, Scenic  
41 Resources Condition 2, and Land Use Condition 9 would minimize the potential visual impacts  
42 of the proposed facility structures from the identified important recreational areas.

---

<sup>312</sup> WRWAPPDoc72 DPO Public Comment\_G. Harrison 2016-05-19

1 Based on the applicant’s analysis, the Council finds that the visual impacts of the construction  
2 and operation of the facility would not be likely to result in significant adverse impacts to any of  
3 the recreational opportunities identified as “important.”  
4

5 **Conclusions of Law**  
6

7 Based on the foregoing, the Council finds that the design, construction and operation of the  
8 facility are not likely to result in a significant adverse impact to any important recreational  
9 opportunities in the analysis area and therefore the facility complies with the Council’s  
10 Recreation standard.  
11

12 **IV.M. Public Services [OAR 345-022-0110]**  
13

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

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

\*\*\*

26 Pursuant to OAR 345-022-0110 (2), the Council may issue a site certificate for a wind energy  
27 without making findings regarding the public services standard; however, the Council may  
28 impose site certificate conditions based upon the requirements of the standard.  
29

30 **Findings of Fact**  
31

32 The Council’s Public Services standard requires the Council to identify likely significant adverse  
33 impacts on the ability of public and private service providers to supply sewer and sewage  
34 treatment, water, stormwater drainage, solid waste management, housing, traffic safety, police  
35 and fire protection, health care, and schools. The analysis area for public services is the area  
36 within and extending 10-miles from the site boundary. The applicant addressed the impacts to  
37 public services in Exhibit U of the ASC.  
38

39 The applicant estimated that the facility would employ an average of 240 people during  
40 construction, with an estimated maximum of 360 people during peak summer construction  
41 months. The applicant stated that approximately 70% of the construction workforce would  
42 come from outside the analysis area. The applicant estimated that during operations, there

1 would be approximately 10 to 15 permanent employees. The applicant assumed that the  
2 facility would be in operation for at least 30 years.<sup>313</sup>

3

#### 4 *Sewers and Sewage Treatment*

5

6 The applicant does not propose to connect to any public sewer or sewage treatment facility.<sup>314</sup>  
7 During construction, the applicant intends to collect sanitary wastes onsite in portable toilets, to  
8 be provided and maintained by a licensed subcontractor.<sup>315</sup>

9

10 As stated in Exhibit U, the applicant intends to utilize a licensed onsite septic system to serve  
11 the domestic wastewater disposal needs at the Operations and Maintenance Buildings.<sup>316</sup> To  
12 ensure minimal impacts on the sewage and solid waste services provided by surrounding  
13 communities, the Department recommends the Council adopt the following condition:

14

15 **Public Services Condition 1:** During operation of the facility, the certificate holder shall  
16 discharge sanitary wastewater generated at the O&M buildings to licensed on-site  
17 septic systems in compliance with State permit requirements. The certificate holder  
18 shall design each septic system for a discharge capacity of less than 2,500 gallons per  
19 day.

20

21 Based upon the applicant's proposal for waste disposal and the condition recommended above,  
22 the Council finds that the construction and operation of the facility are not likely to result in  
23 significant adverse impacts to the ability of service providers to provide for waste disposal.

24

#### 25 *Water Supply*

26

27 The applicant estimated that approximately 56.5 million gallons of water would be needed  
28 during construction, primarily for making concrete for wind turbine foundation construction  
29 and for dust control. The applicant estimated that under a "worst case" scenario, construction  
30 activities could require up to 78 million gallons of water.<sup>317</sup> As discussed in Section IV.T, *Water*  
31 *Rights*, the applicant is not requesting a groundwater permit, a surface water permit, a water  
32 rights transfer, or any other specific water use license.

33

34 The applicant stated that it would obtain water for construction activities from permitted  
35 municipal sources with adequate water rights, and provides copies of written correspondence  
36 with the Port of Morrow and the Public Works Departments of Hermiston, Stanfield, and

---

<sup>313</sup> ASC, Exhibit U, p. U-3.

<sup>314</sup> The nearest developed sewer system identified by the applicant is located in the city of Heppner, approximately five miles from the Site Boundary. ASC, Exhibit U, p. 11.

<sup>315</sup> ASC, Exhibit U, p. U-11.

<sup>316</sup> ASC, Exhibit U, p. U-11.

<sup>317</sup> As discussed in ASC, Exhibit O, p. 3, the worst case scenario would be an especially dry and hot year, necessitating more water used for dust control.

1 Boardman, all of which indicate their capacity to cumulatively provide sufficient water supply  
2 for facility construction.<sup>318</sup> The Port of Morrow alone states that it expects to be able to provide  
3 up to 6.5 million gallons of water per month, which would be more than the applicant expects  
4 to need under the worst-case scenario.<sup>319</sup>

5  
6 The applicant proposed to supply water for operations from an exempt well to be drilled at each  
7 of the O&M Buildings.<sup>320</sup> As also discussed in Section IV.T *Water Rights*, an onsite well drawing  
8 less than 5,000 gallons per day does not require a water right permit.<sup>321</sup> To ensure compliance  
9 with statutory and public service provider requirements, the Council imposes the following  
10 condition:

11  
12 **Public Services Condition 2:** Except as provided in this condition, during facility  
13 operation, the certificate holder shall obtain water for on-site uses from on-site wells  
14 located near the O&M buildings. The certificate holder shall construct on-site wells  
15 subject to compliance with the provisions of ORS 537.765 relating to keeping a well log.  
16 The certificate holder shall not use more than 5,000 gallons of water per day from each  
17 of the two on-site wells. The certificate holder may obtain water from other sources for  
18 on-site uses subject to prior approval by the Department.

19  
20 In addition, the Oregon Water Resources Department (OWRD) requires owners of exempt wells  
21 to meet certain requirements to ensure protection of groundwater quantity and quality. The  
22 site certificate holder would be subject to those OWRD requirements independent of the site  
23 certificate.

24  
25 Based upon the applicant's proposed water sources and compliance with Public Services  
26 Condition 2, the Council finds that the construction and operation of the facility are not likely to  
27 result in significant adverse impacts to the ability of water service providers to provide water.

### 28 *Stormwater Drainage*

29  
30  
31 With the exception of minimal stormwater drainage facilities associated with public roads  
32 maintained by Morrow and Umatilla counties, the nearest developed stormwater drainage  
33 facilities identified by the applicant are located approximately five miles from the Site Boundary,  
34 in the cities of Heppner and Lexington.<sup>322</sup> The applicant stated in Exhibit U that stormwater  
35 runoff would be managed onsite through the use of roadside ditches, infiltration swales, and  
36 retention basins.<sup>323</sup>

37  

---

<sup>318</sup> ASC, Exhibit U, pp. 11-12.

<sup>319</sup> ASC, Exhibit O, Table O-1, p. 5 and Attachment O-4.

<sup>320</sup> ASC, Exhibit U, p. 12.

<sup>321</sup> ORS 537.545(1)(f).

<sup>322</sup> ASC, Exhibit U, p. 4.

<sup>323</sup> ASC, Exhibit U, p. 12.

1 As described in Exhibit I and discussed in Section IV.D, *Soil Protection* of this order, stormwater  
2 management during construction would be conducted in compliance with an NPDES 1200-C  
3 stormwater construction permit and associated Erosion and Sediment Control Plan.<sup>324</sup> Soil  
4 Protection Condition 1 requires the applicant to comply with the requirements of the NPDES  
5 permits and approved Erosion and Sediment Control Plan and Soil Protection Condition 2  
6 requires the use of best management practices to control runoff.

7  
8 The applicant stated that the facility would not affect the provision of stormwater management  
9 services by any public agency.<sup>325</sup>

10  
11 Based on conditions described in Section IV.D, *Soil Protection* of this order and on the  
12 applicant's proposed development and anticipated impact on stormwater facilities, the Council  
13 finds that the construction and operation of the facility are not likely to result in significant  
14 adverse impacts on county stormwater management.

### 15 *Solid Waste Management*

16  
17  
18 The applicant proposed to dispose of solid waste for the facility during construction and  
19 operations through a private contract with a local commercial hauler or haulers. As presented in  
20 Exhibit V of the ASC, the applicant indicated that up to 9,000 cubic yards of solid waste would be  
21 generated during the construction period and up to 6 cubic yards per month would be  
22 generated during operations.<sup>326</sup> The public landfill closest to the facility site boundary is the  
23 Finley Buttes Regional Landfill, located approximately 10 miles south of Boardman,  
24 Oregon.<sup>327</sup>The applicant has provided a copy of correspondence with the sales manager at Finley  
25 Butte Landfill confirming that the landfill has the capacity to accept solid waste generated by  
26 facility construction and operation.<sup>328</sup>

27  
28 The applicant proposed to minimize the generation of construction waste by estimating material  
29 needs and employing construction practices including orderly waste collection and consolidation  
30 at construction yards; segregating waste and recyclable materials; and utilizing appropriately  
31 sized containers equipped with fitted lids.<sup>329</sup> When feasible, the applicant proposed to reuse or  
32 recycle the waste generated during construction (such as steel scraps from turbine foundations  
33 and wood from concrete forms). Excess excavated material would be used to restore ground  
34 contours after construction, and any excess concrete would be incorporated into the turbine  
35 foundations, rather than disposed.<sup>330</sup> To ensure the minimization and proper disposal of solid  
36 wastes, the Council adopts Waste Minimization Conditions 1 and 2, which require the applicant

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<sup>324</sup> The applicant stated in ASC, Exhibit E, p. 19 that the mobile concrete batch plants are expected to be covered by the proposed facility's overall NPDES permit instead of having independent permits.

<sup>325</sup> ASC, Exhibit U, p. 12.

<sup>326</sup> ASC, Exhibit V, pp. 2-3.

<sup>327</sup> ASC, Exhibit U, p. 4.

<sup>328</sup> ASC, Exhibit U, Attachment U-7.

<sup>329</sup> ASC, Exhibit V, pp. 3-4 and 9.

<sup>330</sup> ASC, Exhibit G, p. 9.



1 to ensure proper disposal of excess soil and to implement a solid waste management plan  
2 during construction. In addition, to ensure minimal impacts on the solid waste services  
3 provided by surrounding communities, the Council imposes the following conditions:  
4

5 **Public Services Condition 3:** During construction, the certificate holder shall include the  
6 following additional measures in the construction waste management plan required by  
7 Waste Minimization Condition 2:

- 8 a. Recycling steel and other metal scrap.
- 9 b. Recycling wood waste.
- 10 c. Recycling packaging wastes such as paper and cardboard.
- 11 d. Collecting non-recyclable waste for transport to a local landfill by a licensed  
12 waste hauler or by using facility equipment and personnel to haul the waste.  
13 Waste hauling by facility personnel within Morrow County shall be performed in  
14 compliance with the Morrow County Solid Waste Management Ordinance, which  
15 requires that all loads be covered and secured.
- 16 e. Segregating all hazardous and universal wastes such as used oil, oily rags and oil-  
17 absorbent materials, mercury-containing lights and lead-acid and nickel-  
18 cadmium batteries for disposal by a licensed firm specializing in the proper  
19 recycling or disposal of hazardous and universal wastes.
- 20 f. Discharging concrete truck rinse-out within foundation holes, completing truck  
21 wash-down off-site, and burying other concrete waste as fill on-site whenever  
22 possible.

23  
24 **Public Services Condition 4:** During operation, the certificate holder shall implement a  
25 waste management plan that includes but is not limited to the following measures:

- 26 a. Training employees to minimize and recycle solid waste.
- 27 b. Recycling paper products, metals, glass, and plastics.
- 28 c. Recycling used oil and hydraulic fluid.
- 29 d. Collecting non-recyclable waste for transport to a local landfill by a licensed  
30 waste hauler or by using facility equipment and personnel to haul the waste.  
31 Waste hauling by facility personnel within Morrow County shall be performed in  
32 compliance with the Morrow County Solid Waste Management Ordinance, which  
33 requires that all loads be covered and secured.
- 34 e. Segregating all hazardous and universal, non-recyclable wastes such as used oil,  
35 oily rags and oil-absorbent materials, mercury-containing lights and lead-acid  
36 and nickel-cadmium batteries for disposal by a licensed firm specializing in the  
37 proper recycling or disposal of hazardous and universal wastes.

38  
39 The applicant stated that it would coordinate with waste and recycling franchisees servicing the  
40 proposed facility to maintain records required by Morrow County's Solid Waste Management  
41 Ordinance.<sup>331</sup> In its August 31, 2015 ASC comment letter, Morrow County requested that the

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<sup>331</sup> ASC, Exhibit U, p. 13.

1 Council adopt a condition to ensure that the applicant supports Morrow County waste shed  
2 reporting and goals.<sup>332</sup> Accordingly, the Council imposes the following condition with  
3 administrative changes included in the proposed order clarifying that the requirements would  
4 apply during both construction and operation:  
5

6 **Public Services Condition 5:** During construction and operation, the certificate holder  
7 shall coordinate with its solid waste handler to provide the information solicited through  
8 the Oregon Department of Environmental Quality’s Recycling Collector Survey to the  
9 Morrow County waste shed representative on an annual basis.  
10

11 Based on the applicant’s proposed methods for solid waste management and the findings and  
12 conditions recommended above, the Council finds that the construction and operation of the  
13 facility are not likely to result in significant adverse impact to the ability of public or private  
14 service providers to provide solid waste management.  
15

### 16 *Housing*

17

18 The applicant estimated that during construction the facility would employ an average of 240  
19 workers, with an estimated maximum of 360 workers employed during peak summer  
20 construction months. The applicant stated that the majority of the construction workforce (70%)  
21 would come from outside the analysis area; therefore, construction of the facility would require  
22 temporary housing for an average of 168 construction workers and an estimated peak of  
23 approximately 252 workers who would be temporary residents in the area. Typical housing  
24 options for temporary workers include hotels or motels, apartments, short-term rental homes,  
25 and campgrounds, or other areas where workers can park mobile housing (e.g., trailers or  
26 RVs).<sup>333</sup>  
27

28 The applicant anticipated that most construction workers would not be in the area for more  
29 than 6 to 12 months.<sup>334</sup> The applicant further anticipated that construction workers that would  
30 come from outside the analysis area would have the option of finding temporary housing in  
31 various communities within Morrow and Umatilla counties within commuting distance of the  
32 site boundary, including Lexington, Lone, Heppner, Boardman, Hermiston, Irrigon, Pendleton,  
33 and Umatilla, and potentially other communities at a greater distance.<sup>335</sup>  
34

35 Based on the total number of hotel and motel rooms in Morrow and Umatilla counties and on  
36 statewide average occupancy rates, the applicant estimates that, on average, between 680 and  
37 1,141 hotel and motel rooms (with the lower end of the range coinciding with increased  
38 temporary housing demand during the summer tourism season) would likely be available in  
39 Morrow and Umatilla counties during the construction period. Based on 2010 US Census data,

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<sup>332</sup> WRWAPPDOC42, SAG Comment Morrow County, 08-31-2015.

<sup>333</sup> ASC, Exhibit U, pp. 2 and 13.

<sup>334</sup> ASC, Exhibit U, p. 3.

<sup>335</sup> ASC, Exhibit U, p. 5.

1 the applicant estimated that 1,184 housing units would likely be available for rent in Morrow  
2 and Umatilla counties. Based upon this information, the applicant asserted that there would be  
3 an adequate supply of available housing for the temporary influx of construction workers, and  
4 therefore construction of the facility would not have a significant adverse impact on available  
5 housing.<sup>336</sup>

6  
7 During operations, the applicant estimated there would be approximately 10 to 15 permanent  
8 employees, with most of these employees hired locally, to the extent that skilled workers are  
9 available.<sup>337</sup> Given the current and anticipated vacancies, the applicant concluded that the  
10 permanent operational workforce would not have a substantial adverse impact on housing in  
11 the analysis area.<sup>338</sup>

12  
13 Based upon these considerations, the Council finds that the construction and operation of the  
14 facility are not likely to result in significant adverse impacts to the ability of public and private  
15 housing providers to provide housing.

16  
17 *Traffic Safety*

18  
19 Transportation Routes

20  
21 The Oregon Department of Transportation is the provider of transportation services for state  
22 highways. The applicant identified the public works departments for Umatilla and Morrow  
23 counties as the providers of transportation services for county roads in the vicinity of the  
24 proposed facility. The applicant identified its primary transportation route for construction-  
25 related traffic to be I-84 and OR-207, and indicated that the following major county roads  
26 would convey significant amounts of construction traffic: Bombing Range Road, Big Butter  
27 Creek Road, Little Butter Creek Road, Baseline Road, Juniper Lane, Strawberry Lane, and Sand  
28 Hollow Road in Morrow County. Private roads may also see increases in traffic, and the  
29 applicant proposes to construct additional private access roads to each of the wind turbines  
30 and associated facilities.<sup>339</sup>

31  
32 As described in Exhibit U and as shown in Figure U-2, some of the county or local roads would  
33 require upgrading to accommodate the truck traffic associated with the wind farm  
34 construction, including widening, replacing cattle guards, replacing or adding cover to culverts,  
35 or adding road base aggregate to the existing roads.<sup>340</sup>

36  
37  

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<sup>336</sup> In ASC, Exhibit U, pp. 13 and 14, the applicant provided evidence indicating that adequate housing would still be available even if other planned and approved energy facilities were to be constructed at the same time as the proposed Wheatridge Wind Energy Facility.

<sup>337</sup> ASC, Exhibit U, p. 3.

<sup>338</sup> ASC, Exhibit U, p. 13.

<sup>339</sup> ASC, Exhibit U, p. 6.

<sup>340</sup> ASC, Exhibit U, p. 9.

1 Traffic Volume and Type—Construction and Operations

2  
3 Using estimates derived from similar wind developments, the applicant estimated that over the  
4 18 month construction period, and assuming an average of 24 working days per month,  
5 construction activities from the wind farm development would generate an average of 74 daily  
6 round trips, and construction of the intraconnection line would generate approximately 26  
7 round trips per day. The applicant estimated that during the 6 months when construction of the  
8 intraconnection Line and the wind farm would occur concurrently, and accounting for peak  
9 periods, the primary transportation routes would experience facility-related truck traffic of an  
10 estimated maximum of 125 round trips per day (250 one-way trips) for 24 days of construction  
11 per month. Vehicle traffic during construction would include water trucks and deliveries of on-  
12 site construction equipment, turbine components, and civil construction and material supply  
13 for road work and turbine foundations. Construction worker traffic could generate an additional  
14 192 round trips per day (384 one-way trips), with that number increasing to 288 round trips per  
15 day (576 one-way trips) during the peak construction period.<sup>341</sup>

16  
17 Truck traffic during operations would be minimal, except for periods of maintenance activities  
18 that might require deliveries of large equipment. The applicant stated that operational traffic  
19 generation, including from worker trips associated with the estimated 10 to 20 permanent staff  
20 for the facility, would be minimal.<sup>342</sup>

21  
22 Traffic Impacts and Proposed Mitigation

23  
24 To evaluate projected traffic impact, the applicant examined data on existing and projected  
25 future traffic volumes and LOS published in the 2012 Morrow County Transportation System  
26 Plan and the 2002 Umatilla County Transportation System Plan. Exhibit U, Table U-4 provides a  
27 summary of current traffic volumes and LOS conditions, as well as projected traffic volumes and  
28 service levels with project construction traffic at 11 points (transportation gates) on the  
29 surrounding road network; the transportation gates are shown on Figure U-1.<sup>343</sup>

30  
31 While most construction traffic (both truck and personal vehicle traffic) would travel on I-84 to  
32 reach the site, the applicant indicates that even with the addition of the estimated 825 trips per  
33 day at peak construction times, the I-84 would continue to operate below the volume-to-  
34 capacity performance standard set by Oregon Department of Transportation.<sup>344</sup>

35  
36 As shown in Exhibit U Table U-4, the applicant anticipated that the projected LOS with  
37 construction traffic (LOS A) would be the same as the current peak hour LOS for all area roads  
38 accessed by construction traffic, with one exception. The intersection of Oregon Trail Road with  
39 OR-207 currently operates at LOS A, but is projected to operate at LOS D by 2018, with long

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<sup>341</sup> ASC, Exhibit U, pp. 14-15.

<sup>342</sup> ASC, Exhibit U, p. 15.

<sup>343</sup> ASC, Exhibit U, pp. 17-19, and Figure U-1.

<sup>344</sup> ASC, Exhibit U, p. 16.

1 delays for westbound traffic on Oregon Trail Road turning right or left onto OR-207. The  
2 applicant asserts that while the volume of construction traffic is unlikely to materially affect the  
3 operation of this intersection, the type of traffic is such that some temporary traffic controls  
4 may be desirable at this location.<sup>345</sup>  
5

6 The applicant stated that a traffic management plan would be developed prior to construction  
7 in cooperation with Morrow and Umatilla counties, and with nearby cities if necessary, to  
8 minimize impacts to traffic safety. The applicant further described mitigation measures that its  
9 construction contractor would implement, such as using traffic control measures (e.g., traffic  
10 control flaggers, warning signs, lights, and barriers) during construction to ensure safety and to  
11 minimize localized traffic congestion.<sup>346</sup> The Council adopts the following condition requiring  
12 the applicant to develop and implement a Traffic Management Plan that formalizes the  
13 measures described above and in Exhibit U:  
14

15 **Public Services Condition 6:** Prior to construction, the certificate holder shall prepare a  
16 Traffic Management Plan that includes the procedures and actions described in this  
17 order and the mitigation measures identified in ASC Exhibit U, Section 3.5.4. The plan  
18 shall be approved by the department in consultation with the appropriate  
19 transportation service providers. The plan shall be maintained onsite and implemented  
20 throughout construction of the facility.  
21

22 In addition, the certificate holder shall include the following information in the plan:  
23

- 24 a. Procedures to provide advance notice to all affected local jurisdictions and adjacent  
25 landowners of construction deliveries and the potential for heavy traffic on local  
26 roads;
- 27 b. A policy of including traffic control procedures in contract specifications for  
28 construction of the facility;
- 29 c. Procedures to maintain at least one travel lane at all times to the extent reasonably  
30 possible so that roads will not be closed to traffic because of construction vehicles;
- 31 d. A policy of ensuring that no equipment or machinery is parked or stored on any  
32 county road whether inside or outside the site boundary. The certificate holder may  
33 temporarily park equipment off the road but within county rights-of-way with the  
34 approval of the Morrow County and Umatilla County Public Works Departments;
- 35 e. A policy to encourage and promote carpooling for the construction workforce; and
- 36 f. Procedures to keep state highways and county roads free of gravel that may be  
37 tracked out on intersecting roads at facility access points.  
38

39 The applicant asserted that I-84 and OR-207 are constructed to standards that would safely  
40 allow the construction-related legally oversized/overweight trucks to pass with no adverse  
41 impact on the road surface. Three permits may be required from Oregon Department of

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<sup>345</sup> ASC, Exhibit U, pp. 17-19.

<sup>346</sup> ASC, Exhibit U, pp. 21-22.

1 Transportation in order to minimize impacts to state highways, as identified in Exhibit U and  
2 Exhibit E: Permit to Occupy or Perform Operations upon a State Highway, Oversize Load  
3 Movement Permit/Load Registration, and an Access Management Permit.<sup>347</sup> These permits  
4 would not be included in or governed by the Site Certificate.

5  
6 In addition, the applicant identified paved Rural Major Collector roads and Minor Collector  
7 roads that would be used by construction truck traffic that the applicant anticipates can safely  
8 accommodate construction traffic based on pavement conditions and design. In contrast, the  
9 applicant identified unpaved County and local roads that would require the addition of more  
10 road base aggregate to support the loads; replacement or lengthening of culverts; grading; and  
11 replacement of cattle guards in order to safely receive construction truck traffic. The applicant  
12 indicated that, at the design stage of the proposed facility, a careful inspection of these  
13 unpaved roads would be required to determine where and what improvements would be  
14 required to make these roads serviceable. The applicant further indicated that it would  
15 coordinate with county roads officials as needed to address necessary road improvements,  
16 temporary road closures, oversize load movements, and monitoring of impacts to county roads.

17 <sup>348</sup>

18  
19 The applicant stated that it would cooperate with both of the Morrow and Umatilla County  
20 public works departments to obtain permits to improve the roads and also to make repairs to  
21 county roads. As described in Exhibit E, the following permits may be required from Morrow  
22 County in order to minimize impacts to county and local roads: Utility Crossing Permit, Access  
23 Approach Site Permit, Construction Permit to Build on Right-of-Way, and Oversize Load  
24 Movement Permit. For the same reason, an Installation of Utilities on County and Public Roads  
25 Permit and a Construction of Road Approaches and Private Road Crossings Permit (Access  
26 Approach Permit) may be required from Umatilla County.<sup>349</sup> These permits would not be  
27 included in or governed by the Site Certificate.

28  
29 The applicant expected to enter into road use agreements with both counties to ensure that  
30 public roads impacted by construction would be left in ‘as good or better’ condition than that  
31 which existed prior to the start of construction.<sup>350</sup> To ensure that any construction-related road  
32 damage is repaired to the satisfaction of the local jurisdictions, the Council imposes the  
33 following condition:

34  
35 **Public Services Condition 7:** Before beginning construction, the certificate holder must  
36 enter into Road Use Agreements with the Morrow County and Umatilla County Public  
37 Works Departments. The Agreements must include, at a minimum, a pre-construction  
38 assessment of road surfaces under Morrow County and Umatilla County jurisdiction,  
39 construction monitoring, and post-construction inspection and repair. A copy of the

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<sup>347</sup> ASC, Exhibit U, p. 20 and Exhibit E, pp. 9-10.

<sup>348</sup> ASC, Exhibit U, pp. 20-21.

<sup>349</sup> ASC, Exhibit U, pp. 21-22 and Exhibit E, pp. 14-18.

<sup>350</sup> ASC, Exhibit U, p. 22.

1 Road Use Agreements with Morrow County and Umatilla County must be submitted to  
2 the department before beginning construction. If required by Morrow County or  
3 Umatilla County, the certificate holder shall post bonds to ensure funds are available to  
4 repair and maintain roads affected by the facility.  
5

6 Furthermore, to ensure that new access roads and private road improvements are designed  
7 and constructed to county standards, the Council imposes the following condition:  
8

9 **Public Services Condition 8:** The certificate holder shall design and construct new access  
10 roads and private road improvements to standards approved by Umatilla County or  
11 Morrow County. Where modifications of county roads are necessary, the certificate  
12 holder shall construct the modifications entirely within the county road rights-of-way  
13 and in conformance with county road design standards subject to the approval of the  
14 Umatilla County and Morrow County Public Works Departments.  
15

16 Based on the applicant's commitments, plans for traffic safety and roadway repair during and  
17 following construction, and subject to the recommended conditions, the Council finds that the  
18 construction and operation of the facility, taking into account mitigation, are not likely to result  
19 in significant adverse impact to the ability of public or private providers to provide traffic safety.  
20

#### 21 *Air Traffic* 22

23 As identified by the applicant, air transportation services in the vicinity of the facility include the  
24 Morrow County (Lexington) Airport (a public use airport located approximately 2.5 miles  
25 southwest of the Site Boundary), and the West Buttercreek airfield, which is located within 4  
26 miles of the Site Boundary but does not meet the OAR 738-005-0010 definition of a public use  
27 airport.<sup>351</sup> Because the wind turbines would be greater than 200 feet in height, the applicant  
28 must submit a Notice of Proposed Construction or Alteration form (known as FAA Form 7460-1)  
29 to both the Federal Aviation Administration (FAA) and the Oregon Department of Aviation, in  
30 order for the FAA and the Oregon Department of Aviation to assess potential hazards to air  
31 safety and air navigation. The applicant stated that it would submit the required information in  
32 accordance with ORS 836.535(2)(a). The applicant further stated that it would provide to the  
33 Council a record of all correspondence with FAA and the Oregon Department of Aviation no less  
34 than 30 days prior to construction.<sup>352</sup>  
35

36 In its comment letter on the ASC, the Oregon Department of Aviation requested that the  
37 Council include a condition of approval requiring the applicant to file FAA Form 7460-1 with the  
38 FAA and the Oregon Department of Aviation and to receive a determination of air safety.<sup>353</sup>

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<sup>351</sup> WRWAPPDoc56, Agency Comment Oregon Department of Aviation (J. Caines) , 04-20-2016.

<sup>352</sup> ASC, Exhibit U, pp. 22-23.

<sup>353</sup> WRWAPPDoc30, Agency Comment Oregon Department of Aviation, 08-06-2015. Under its review process, the Oregon Department of Aviation would conduct an aeronautical study and recommend one of four outcomes: 1) No objections to the proposal, 2) Marking and lighting recommended or required for aviation safety, 3) The proposed

1  
2 Under the Public Services Standard, the Council must consider a facility’s potential impact to  
3 public service providers to provide traffic safety. In order to ensure that the proposed facility  
4 would not result in adverse impacts to the ability of the Morrow County (Lexington) Airport to  
5 provide service, and to address the concerns of the Oregon Department of Aviation regarding  
6 impacts to air navigation safety, the Council adopts the following condition, with administrative  
7 changes included in the proposed order clarifying that the requirements would apply to each  
8 turbine.<sup>354</sup>

9  
10 **Public Services Condition 9:** Before beginning construction, the certificate holder shall  
11 submit to the Federal Aviation Administration (FAA) and the Oregon Department of  
12 Aviation an FAA Form 7460-1 Notice of Proposed Construction or Alteration for each  
13 turbine. Before beginning construction, the certificate holder shall submit to the  
14 department the results of the Oregon Department of Aviation aeronautical study and  
15 determination. If the department, in consultation with the Oregon Department of  
16 Aviation, determines that any turbine would adversely impact an airport’s ability to  
17 provide service by obstructing the airport’s primary or horizontal surface, the  
18 department, in consultation with the Oregon Department of Aviation and the certificate  
19 holder, shall determine appropriate mitigation, if any, prior to construction.

20  
21 *Police and Fire Protection*

22  
23 As described in Exhibit U, the Umatilla and Morrow County Sheriffs’ Offices provide police  
24 services in the area of the facility. The applicant stated also that additional law enforcement  
25 service is available from the Oregon State Police, with offices in Arlington, Heppner, Hermiston,  
26 and Pendleton. The applicant asserted that due to the small number of temporary construction  
27 workers and additional permanent-resident employees no significant adverse demands would  
28 be placed upon the law enforcement agencies in the area.<sup>355</sup>

29  
30 The applicant consulted the Umatilla County Sheriff’s Office and the Morrow County Sheriff’s  
31 Office and each provided a letter confirming that the office would respond appropriately and as  
32 necessary to any complaints that come from the facility. Additionally, the Morrow County  
33 Sheriff’s Office confirmed that the facility would not adversely affect the Morrow County

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obstruction should be lowered to a height that is no longer a hazard, or 4) The proposed obstruction should be relocated.

<sup>354</sup> In the draft proposed order, recommended Public Services Condition 9 stated, “Before beginning construction, the certificate holder shall submit to the Federal Aviation Administration (FAA) and the Oregon Department of Aviation (ODA) an FAA Form 7460-1 Notice of Proposed Construction or Alteration. Before beginning construction, the site certificate holder shall submit to the department the results of ODA’s aeronautical study and determination. If the department, in consultation with ODA, determines that any facility components would adversely impact an airport’s ability to provide service by obstructing the airport’s primary or horizontal surface, the department, in consultation with ODA and the certificate holder, shall determine appropriate mitigation, if any, prior to construction.”

<sup>355</sup> ASC, Exhibit U, p. 10.



1 Sheriff's Office in terms of additional workload.<sup>356</sup> To ensure on-site security is established,  
2 establish and maintain effective communication with local law enforcement, and mitigate the  
3 potential adverse impacts to the police services provided by the surrounding communities, the  
4 Council imposes the following conditions:

5  
6 **Public Services Condition 10:** During construction of the facility, the certificate holder  
7 shall provide for 24-hour on-site security, and shall establish effective communications  
8 between on-site security personnel and the Morrow County Sheriff's Office and Umatilla  
9 County Sheriff's Office.

10  
11 **Public Services Condition 11:** The certificate holder shall construct turbine towers with  
12 no exterior ladders or access to the turbine blades and shall install locked tower access  
13 doors. The O&M buildings shall be fenced. The certificate holder shall keep tower access  
14 doors and O&M buildings locked at all times, except when authorized personnel are  
15 present.

16  
17 **Public Services Condition 12:** During operation, the certificate holder shall ensure that  
18 appropriate law enforcement agency personnel have an up-to-date list of the names  
19 and telephone numbers of facility personnel available to respond on a 24-hour basis in  
20 case of an emergency at the facility site.

21  
22 In Exhibit U, the applicant indicated that because the Site Boundary is located completely within  
23 the rural fire protection districts of Heppner, Lone, and Echo, any emergency fire response would  
24 be by one of these three rural fire protection districts and any assistance by another fire  
25 department would be in the service of one of these three rural fire protection districts.<sup>357</sup> The  
26 City of Heppner Volunteer Fire Department provided a letter indicating that the facility would  
27 not have a significant impact on the operations of the agency, but the fire department does not  
28 have the ability to perform confined space rescue or high angle rescue. The Lone and Echo fire  
29 protection districts each provided a letter also indicating that they also do not have the ability to  
30 perform confined space rescue or high angle rescue, and that the facility would not have a  
31 significant impact on their ability to fight wildfires.<sup>358</sup> Boardman Rural Fire Protection District  
32 provided a letter stating that while the facility is outside of its protection district, it does provide  
33 aid to the responsible fire districts if necessary.<sup>359</sup>

34  
35 The applicant stated that the greatest risk of fire at a wind facility occurs during construction,  
36 with fire hazards including metal cutting and welding, worker cigarettes, vehicle refueling, and  
37 driving or parking vehicles in tall dry grass.<sup>360</sup>

38  

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<sup>356</sup> ASC, Exhibit U, Attachments U-1 and U-2.

<sup>357</sup> ASC, Exhibit U, p. 10.

<sup>358</sup> ASC, Exhibit U, Attachments U-3, U-4, and U-5.

<sup>359</sup> ASC, Exhibit U, Attachment U-6.

<sup>360</sup> ASC, Exhibit U, p. 24.

1 Exhibit U described the applicant's plans for fire prevention and protection on the facility site.<sup>361</sup>  
2 Fire prevention measures the applicant states will be implemented during construction include:

3  
4 Vehicles and Fueling

- 5 • Plan and manage the work and the movement of vehicles. No off-road driving is to be  
6 done while working alone.
- 7 • General Contractor will be responsible for identifying and marking the path for all off-  
8 road vehicle travel.
- 9 • All vehicle travel off-road is to stay on the identified path.
- 10 • In the event a vehicle gets stuck, shut the engine off. Periodically inspect the area  
11 adjacent to the exhaust system for evidence of ignition of vegetation. Do not "rock" the  
12 vehicle to free it, rather, pull it out. Inspect the area after the vehicle has been moved.
- 13 • In tall grass (i.e., tall or taller than the exhaust system of the vehicle(s)), pre-wet the  
14 area with water prior to driving on it with vehicles.
- 15 • General Contractor will designate a location for field fueling operations at each  
16 construction yard. Any fueling of generators, pumps, etc. shall take place at this location  
17 only.
- 18 • Fuel containers, if used, shall remain in a vehicle or equipment trailer, parked at a  
19 designated location alongside county R/W. No fuel containers shall be in the vehicles  
20 that exit the R/W with the exception of one – five gallon container that is required for  
21 the water truck pump.

22  
23 Smoking

- 24 • Smoking shall only be allowed in the designated smoking areas within the site boundary.

25  
26 Fire Suppression and Emergency Preparedness

27 Fire-fighting equipment (and the associated instructions for proper use) that the applicant states  
28 would be available onsite during construction includes:

- 29 • Each vehicle used onsite shall have a fire extinguisher of sufficient type and capacity to  
30 suppress small fires around vehicles. Vehicle occupants shall be familiar with the  
31 location of these fire extinguishers. All employees who may have a need to use a fire  
32 extinguisher shall be current in their training on the general principals of fire  
33 extinguisher use and the hazards involved with incipient stage fire-fighting.
- 34 • Prior to start of construction work activities, contact the local fire department and  
35 advise them of work type, location, and probable duration.
- 36 • Prior to performing hot work (anything that creates a spark or an open flame is  
37 considered hot work) fire suppression equipment must be immediately available, hot  
38 work must only be done on road or turbine pad surfaces cleared of vegetation, and the  
39 on-site Fire Safety Supervisor must be notified.

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<sup>361</sup> ASC, Exhibit U, pp. 24-25.

- A fire watch, equipped with a suitable fire extinguisher, shall be maintained for a period of 60 minutes after completion of work in a specific area and at the end of each day's activities.

#### Emergency Notification and Follow-up

The course of action that the applicant indicates should be taken if an emergency situation develops includes:

- Evacuate as necessary. Maintain site security and control if possible. If crews are working at different areas of the site, a designated meeting location will be created for all people to gather.
- Notify proper emergency services (fire, ambulance, etc.) for assistance.
- Notify site management on radio channel #1 of any possible fires.
- Prepare a summary report of the incident as soon as possible after the incident.

Equipment and procedures that the applicant states would be utilized to reduce the risk of fire or fire spread during operations and maintenance include:

- The turbines would be equipped with internal fire suppression systems in the nacelles.
- The O&M buildings would be equipped with fire protection equipment in accordance with Oregon Fire Code, and the substations, collector lines, and other electrical connections would be built to NESC standards.
- Maintenance vehicles would drive and park on maintained gravel roads and turbine pads, avoiding hazards associated with driving or parking in tall dry grass.

The Council adopts the following condition requiring the applicant to develop an Emergency Management Plan that formalizes the measures described above and in Exhibit U:

**Public Services Condition 13:** 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.

Additional information that shall be included in the plan:

- 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

- 1           be provided to the Department, along with a list of the agencies that received  
2           the contact information.
- 3           b. Identification of agencies that participated in developing the plan;
  - 4           c. Identification of agencies that are designated as first response agencies or are  
5           included in any mutual aid agreements with the facility;
  - 6           d. A list of any other mutual aid agreements or fire protection associations in the  
7           vicinity of the facility;
  - 8           e. Contact information for each agency listed above;
  - 9           f. Communication protocols for both routine and emergency events and the  
10          incident command system to be used in the event a fire response by multiple  
11          agencies is needed at the facility;
  - 12          g. Access and fire response at the facility site during construction and operations.  
13          Fire response plans during construction should address regular and frequent  
14          communication amongst the agencies regarding the number and location of  
15          construction sites within the site boundary, access roads that are completed and  
16          those still under construction, and a temporary signage system until permanent  
17          addresses and signs are in place;
  - 18          h. The designated meeting location in case of evacuation;
  - 19          i. Staff training requirements; and
  - 20          j. Copies of mutual aid, fire protection association, or other agreements entered  
21          into concerning fire protection at the facility site.
- 22

23   The applicant concluded in Exhibit U that significant new demands on fire protection forces are  
24   not anticipated, given the inherent fire-safety features of proposed facility components and the  
25   relatively small number of new temporary and permanent residents.<sup>362</sup> However, in its  
26   September 16, 2015 comment letter, Umatilla County noted that, despite the applicant  
27   receiving communication from the affected fire departments stating that they do not have the  
28   ability to perform confined space rescue or high angle rescue, the “[a]pplication establishes  
29   that there is no plan to deal with the fires occurring on the turbines.”<sup>363</sup> To respond to the  
30   County’s concern, and given that the lone and Echo fire protection districts indicated that they  
31   do not have the ability to perform confined space rescue or high angle rescue, the Council  
32   imposes the following conditions:

33

34           **Public Services Condition 14:** During construction of the facility, the certificate holder  
35           shall ensure that turbine construction personnel are trained and equipped for fall  
36           protection, high angle, and confined space rescue. The certificate holder must retain  
37           records of the training and provide them to the department upon request.

38

39           **Public Services Condition 15:** Prior to operation of the facility, the certificate holder shall  
40           ensure that operations personnel are trained and equipped for fall protection and tower  
41           rescue, including high angle and confined space rescue. Refresher training in high angle

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<sup>362</sup> ASC, Exhibit U, pp. 25-26.

<sup>363</sup> WRWAPPDoc34, SAG Comment UBOC, 09-16-2015.

1 and confined space rescue must be provided to operations personnel on an annual basis  
2 throughout the operational life of the facility. The certificate holder must retain records  
3 of the training and provide them to the department upon request.  
4

5 To ensure the individual towers and tower sites are constructed and maintained for to reduce  
6 the risk of fire hazard, the Council adopts the following condition:<sup>364</sup>  
7

8 **Public Services Condition 16:** During construction, the certificate holder shall design  
9 turbines to be constructed on concrete pads with a minimum of 10 feet of nonflammable  
10 and non-erosive ground cover on all sides. The certificate holder shall cover turbine pad  
11 areas with nonflammable, non-erosive material immediately following exposure during  
12 construction and shall maintain the pad area covering during facility operation.  
13

14 To ensure onsite personnel limit their risk of causing a fire during construction and operation of  
15 the facility and that response personnel can respond to fire hazards in the shortest possible  
16 time frame, the Council adopts the following conditions:  
17

18 **Public Services Condition 17:** During construction the certificate holder must maintain  
19 an area clear of vegetation for fire prevention around construction sites, including  
20 turbines and towers and any areas where work includes welding, cutting, grinding, or  
21 other flame- or spark-producing operations.  
22

23 **Public Services Condition 18 [Draft Proposed Order Recommended Public Services**  
24 **Condition 19]:** Prior to construction and operation of the facility, , the certificate holder  
25 must provide employee fire prevention and response training that includes instruction  
26 on facility fire hazards, fire safety, emergency notification procedures, use of fire safety  
27 equipment, and fire safety rules and regulations. The certificate holder shall notify the  
28 department and the first-response agencies listed in the Emergency Management Plan  
29 developed to comply with Public Services Condition 13 at least 30 days prior to the  
30 annual training to provide an opportunity to participate in the training. Equivalent  
31 training shall be provided to new employees or subcontractors working on site that are  
32 hired during the fire season. The certificate holder must retain records of the training  
33 and provide them to the department upon request.  
34

35 **Public Services Condition 19 [Draft Proposed Order Recommended Public Services**  
36 **Condition 20]:** Before beginning operation of the facility, the certificate holder must  
37 provide a final site plan to the identified fire protection districts and first-responders

---

<sup>364</sup> In the draft proposed order, recommend Public Services Condition 17 stated, “The certificate holder shall install and maintain self-monitoring devices on each turbine, 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.” This condition was redundant with recommended Public Health and Safety Standards for Wind Facilities Condition 4 and therefore was deleted from the proposed order.

1 included in the Emergency Management Plan. The certificate holder must indicate on  
2 the site plan the identification number assigned to each turbine and the actual location  
3 of all facility structures. The certificate holder shall provide an updated site plan if  
4 additional turbines or other structures are later added to the facility.  
5

6 Based on the applicant's plans for security, fire protection, and communication with local  
7 service providers, and compliance with the conditions imposed in the site certificate, the  
8 Council finds that the construction and operation of the facility are not likely to result in  
9 significant adverse impact to the ability of public or private police or fire protection service  
10 providers to provide police and fire protection.  
11

### 12 *Health Care*

13

14 The applicant stated that any worker suffering minor injuries would be transported and treated  
15 at the Pioneer Medical Center in Heppner or the Good Shepherd Medical Center in Hermiston.  
16 Workers suffering an injury that requires immediate medical attention would be transported  
17 using one of the local ambulance services. The applicant also indicated that workers suffering  
18 more serious injuries would be taken to the Mid-Columbia Medical Center in The Dalles, or  
19 would be flown by helicopter (operated by Life Flight) to one of the two Level 1 hospitals located  
20 in Portland: Oregon Health Sciences University Hospital or Legacy Emmanuel Medical Center.<sup>365</sup>  
21

22 The applicant does not anticipate that the number of construction workers temporarily locating  
23 in the area and the number of permanent employees and their families moving into the area  
24 would adversely affect the ability of these providers to deliver health services; however, the  
25 applicant notes that impacts on health care could occur if facility construction activities were to  
26 result in an increase in the use of emergency health care services exceeding the capacity of local  
27 providers.<sup>366</sup> The Council concurs that the population increase in the analysis area during  
28 operation of the facility would be minimal, but the applicant has indicated that an average of  
29 about 168 and a peak of about 252 temporary residents (in-migrants) could be in a single  
30 location for a period from a few weeks to as long as 18 months, which has potential to cause a  
31 temporary strain on health and emergency care services.<sup>367</sup> To reduce the potential for impacts  
32 to health providers, Council adopts the following conditions:  
33

34 **Public Services Condition 20:** Before beginning construction, the certificate holder shall  
35 develop and implement, or require its contractors to develop and implement, a site  
36 health and safety plan that informs workers and others onsite about first aid techniques  
37 and what to do in case of an emergency. The health and safety plan will include  
38 preventative measures, important telephone numbers, the locations of onsite fire  
39 extinguishers, and the names, locations and contact information of nearby hospitals. All  
40 onsite workers shall be trained in safety and emergency response, as per the site health

---

<sup>365</sup> ASC, Exhibit U, p. 26.

<sup>366</sup> ASC, Exhibit U, p. 26.

<sup>367</sup> ASC, Exhibit U, pp. 5 and 11.

1 and safety plan. The site health and safety plan must be updated on an annual basis,  
2 maintained throughout the construction and operations and maintenance phases of the  
3 facility, and available upon request by the department.  
4

5 **Public Services Condition 21:** Before beginning construction, the certificate holder shall  
6 ensure that all construction workers are certified in first aid, cardio pulmonary  
7 resuscitation (CPR), and the use of an automated external defibrillator (AED). The  
8 certificate holder must retain records of the certifications and provide them to the  
9 department upon request. The certificate holder shall also ensure that an AED is  
10 available onsite at all times that construction activities are occurring.  
11

12 **Public Services Condition 22 [Draft Proposed Order Recommended Public Services**  
13 **Condition 23]:** Prior to operation, the certificate holder must ensure that operations  
14 personnel remain current in their first aid/CPR/AED certifications throughout the  
15 operational life of the facility. The certificate holder must retain records of the  
16 certifications and provide them to the department upon request. The certificate holder  
17 shall also ensure that an AED is available onsite at all times that operations and  
18 maintenance personnel are at the facility.  
19

20 Based upon this analysis and the proposed conditions, the Council finds that the construction  
21 and operation of the facility are not likely to result in significant adverse impact to the ability of  
22 public or private health care providers to provide health care.  
23

#### 24 *Schools*

25  
26 The applicant stated in Exhibit U that the facility would be located in Morrow County School  
27 District No.1 and Echo School District No. 5 in Umatilla County.<sup>368</sup> The applicant asserted that no  
28 significant adverse impacts to schools are anticipated during construction of the facility, because  
29 construction would be temporary and short-term, and much of the peak work period would  
30 occur during the summer months when school is not in session. According to the applicant, only  
31 a small percentage of workers would be expected to relocate their entire families (including  
32 school-age children) for a short-term construction project. As such, the applicant stated that it is  
33 unlikely that any one school would receive more students than it can accommodate.<sup>369</sup>  
34

35 During operation of the facility, the applicant does not anticipate that the estimated 10 to 15  
36 permanent employees would have a significant adverse impact on local schools, and it is  
37 expected that local schools can accommodate any potential new children that may move to the  
38 local area associated with the facility operation.<sup>370</sup>  
39

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<sup>368</sup> ASC, Exhibit U, p. 11.

<sup>369</sup> ASC, Exhibit U, pp. 26-27.

<sup>370</sup> ASC, Exhibit U, pp. 3 and 26-27.

1 Based upon the foregoing, the Council finds that the construction and operation of the facility  
2 are not likely to result in significant adverse impact to the ability of public and private providers  
3 to provide school services.

4  
5 **Conclusions of Law**

6  
7 Based on the foregoing analysis, and in compliance with OAR 345-022-0110(2), the Council  
8 imposes the above referenced conditions in the site certificate to address the Council's Public  
9 Services standard.

10  
11 **IV.N. Waste Minimization [OAR 345-022-0120]**

12  
13 *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the*  
14 *Council must find that, to the extent reasonably practicable:*

15  
16 *(a) The Applicant's solid waste and wastewater plans are likely to minimize*  
17 *generation of solid waste and wastewater in the construction and operation of the*  
18 *facility, and when solid waste or wastewater is generated, to result in recycling and*  
19 *reuse of such wastes;*

20  
21 *(b) The Applicant's plans to manage the accumulation, storage, disposal and*  
22 *transportation of waste generated by the construction and operation of the facility*  
23 *are likely to result in minimal adverse impact on surrounding and adjacent areas.*

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

29 \*\*\*

30 Pursuant to OAR 345-022-0020(2), the Council may issue a site certificate for a wind energy  
31 facility without making findings regarding the Waste Minimization standard; however, the  
32 Council may impose site certificate conditions based upon the requirements of the standard.

33  
34 **Findings of Fact**

35  
36 The Waste Minimization standard requires the Council to find that the certificate holder will  
37 minimize the generation of solid waste and wastewater, and that the waste generated will be  
38 managed to result in minimal adverse impacts on surrounding and adjacent areas. The  
39 applicant provided information about waste minimization in Exhibits G and V of the ASC. Exhibit  
40 V includes the applicant's plans for solid waste and wastewater management during  
41 construction and operation of the facility. Exhibit G includes additional information about  
42 management of potentially hazardous materials.



1 *Solid Waste*

2

3 The applicant indicated that solid waste generated during construction would produce  
4 approximately 9,000 cubic yards of waste and would consist primarily of scrap metal (e.g., wire  
5 and rebar scraps), wood, concrete, incidental litter, and other debris. The applicant proposed to  
6 minimize the generation of construction waste by estimating material needs and employing  
7 efficient construction practices including orderly waste collection and consolidation at  
8 construction yards; segregation of waste and recyclable materials; and, utilization of  
9 appropriately sized containers equipped with fitted lids. As explained in Exhibit V, disposal and  
10 recycling containers would be transported by a licensed waste hauler, under contract to the  
11 construction contractor, to appropriate disposal facilities.<sup>371</sup>

12

13 Excess soil generated during turbine foundation excavations would be re-spread within areas of  
14 temporary disturbance and may, if necessary, be disposed of by the applicant's construction  
15 contractor at an approved off-site facility. The applicant explained that off-site facilities, if  
16 necessary, used by construction contractors for excess soil disposal would be on participating  
17 land-owner property within the site boundary, but would be approved by the applicant's  
18 environmental representatives and the receiving landowner. Based on the applicant's  
19 representation of measures to ensure proper disposal of excess soil, the Council imposes the  
20 following condition:

21

22 **Waste Minimization Condition 1:** During construction, the certificate holder shall  
23 require construction contractors to complete the following for any off-site disposal of  
24 excess soil during construction activities:

- 25 a. Obtain and provide the certificate holder with a signed consent agreement between  
26 contractor and the party receiving the earth materials authorizing the acceptance  
27 and disposal of the excess soil; and,  
28 b. Confirm that all disposal sites have been inspected and approved by the certificate  
29 holder's environmental personnel to ensure that sensitive environmental resources,  
30 such as wetlands or high quality habitats, would not be impacted.

31

32 The certificate holder shall maintain copies of all signed consent agreements and  
33 disposal site inspection and approvals onsite and shall provide to the department in the  
34 6-month construction report required pursuant to OAR 345-026-0080(1)(a).

35

36 The applicant proposed to implement a waste management plan to ensure waste materials  
37 generated during construction would be reused, recycled, or properly disposed. The waste  
38 management plan would contain details on how the applicant and its contractor would  
39 properly manage and dispose of waste, including information regarding waste containers,  
40 waste segregation and recycling program, and waste disposal facilities and collection  
41 requirements. To ensure the waste management plan is implemented as proposed, the Council  
42 adopts the following condition:

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<sup>371</sup> ASC, Exhibit V, pp. 2 and 4.

1  
2 **Waste Minimization Condition 2:** Prior to construction, the certificate holder shall  
3 develop a construction waste management plan, to be implemented during all phases of  
4 facility construction, which includes at a minimum the following details:

- 5 a. Specification of the number and types of waste containers to be maintained at  
6 construction sites and construction yards  
7 b. Description of waste segregation methods for recycling or disposal.  
8 c. Names and locations of appropriate recycling and waste disposal facilities, collection  
9 requirements, and hauling requirements to be used during construction.

10  
11 The certificate holder shall maintain a copy of the construction waste management plan  
12 onsite and shall provide to the department a report on plan implementation in the 6-  
13 month construction report required pursuant to OAR 345-026-0080(1)(a).

14  
15 Operation of the facility would generate solid waste during repair or replacement of turbines, or  
16 associated facility components, and from O&M buildings. The applicant explained that  
17 operational waste would be collected by maintenance crews and transported off-site to facilities  
18 approved to handle the disposal or recycling of these items. During both construction and  
19 operation of the facility, solid wastes would be disposed at the Finley Butte landfill in Morrow  
20 County. The Public Services section of this final order contains additional information regarding  
21 the landfill and waste disposal. Exhibit U, Attachment U-7, is a letter from the Finley Butte  
22 landfill operator confirming the landfill has adequate capacity to accept the anticipated waste  
23 from the facility.<sup>372</sup>

24  
25 In response to the Wheatridge Notice of Intent, Morrow County submitted its applicable  
26 substantive criteria that would apply to the facility. The applicant addressed the applicable  
27 components of the solid waste management ordinance in Exhibit V. Included in the criteria is the  
28 county solid waste management ordinance, which requires the following:

29  
30 *SECTION 5.000. PUBLIC RESPONSIBILITIES*

31 *5.010. Transportation of Solid Waste*

32 *No person shall transport or self-haul, as defined in the Solid Waste Management Plan,*  
33 *solid waste on a public road unless such waste or solid waste is covered and secured.*

34 *“Covered and Secured” includes:*

- 35 *1. Loads which are totally contained within an enclosed vehicle or container;*  
36 *2. Loads of solid waste contained in garbage cans with tightly fitting lids, tied plastic solid*  
37 *waste disposal bags or similar totally enclosed individual containers that are completely*  
38 *contained within the walls of a vehicle or container, such that no solid waste can*  
39 *reasonably be expected to escape during hauling;*  
40 *3. Loads of brush, building materials and similar bulky materials which are secured in or*  
41 *on the hauling vehicle or completely contained within the walls of a vehicle or container,*  
42 *such that none can reasonably be expected to escape during hauling; or*

---

<sup>372</sup> ASC, Exhibit V, pp. 4-5.

1           4. Loads consisting entirely of rock, concrete, asphalt paving, stumps and similar  
2           materials that are completely contained within the walls of a vehicle or container, such  
3           that none can reasonably be expected to escape during hauling.  
4

5 The applicant stated that solid waste would be transported off-site from designated collection  
6 points at the construction yards and the O&M buildings by contracted waste haulers. The waste  
7 haulers would be responsible for compliance with the ordinance to cover and secure the loads.  
8 Any solid waste transported by construction personnel from work sites to the collection points  
9 would be done in compliance with the ordinance to cover and secure loads.<sup>373</sup>

10  
11           5.020. Accumulation, Littering and Disturbance of Solid Waste Prohibited  
12           No person shall accumulate or store wastes in violation of the Morrow County Nuisance  
13           Ordinance or in violation of regulations of the Oregon Littering Provisions (ORS 164.775 -  
14           805). No unauthorized person shall remove the lid from any solid waste container or  
15           collect, disturb or scatter solid waste stored in the container or deposit solid waste into  
16           the container.  
17

18 The applicant stated that it would comply with this provision, and would maintain compliance by  
19 developing and implementing a waste management plan.<sup>374</sup> Waste Minimization Condition 2,  
20 requiring the site certificate holder to develop and implement such a plan, would help maintain  
21 compliance with the county ordinance and the Oregon Littering Provisions.  
22

23           5.030. Responsibility for Proper Disposal of Hazardous Waste  
24           The owner, operator, or occupant of any premise, business, establishment, or industry  
25           shall be responsible for the satisfactory and legal disposal of all hazardous solid waste  
26           generated or accumulated by them on the property. All hazardous solid wastes shall be  
27           disposed of at an appropriate solid waste disposal site licensed to receive such waste, or  
28           in a manner consistent with Department of Environmental Quality regulations. It shall be  
29           unlawful for any person to dump, deposit, bury, or allow the dumping, depositing or  
30           burying of any hazardous solid waste onto or under the surface of the ground or into the  
31           waters of the state, except at a State permitted solid or hazardous waste disposal site.  
32

33 The applicant stated that any hazardous waste generated during construction or operation of  
34 the facility would be removed, transported, and disposed by a qualified and licensed contractor.  
35 No hazardous solid wastes shall be dumped, deposited, buried, or otherwise disposed on or  
36 under the ground at the facility.<sup>375</sup>

37  
38           5.040. Open Burning  
39           Woody debris, brush, leaves, grass, tumbleweeds, wood and cuttings from trees, lawns,  
40           shrubs and gardens (excepting paper, cardboard, or wood containers in commercial

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<sup>373</sup> ASC, Exhibit V, pp. 5-6.

<sup>374</sup> Id.

<sup>375</sup> Id.

1            *quantities) may be burned on private property only if the method of burning is approved*  
2            *by the local fire department and is done in accordance with the rules and regulations of*  
3            *the Oregon Department of Environmental Quality. Agricultural open burning is allowed*  
4            *pursuant to Oregon air pollution laws (ORS 468A.020) and the requirements and*  
5            *prohibitions of local jurisdictions and the State Fire Marshal. Open burning of any waste*  
6            *materials, including on agricultural lands, that normally emit dense smoke, noxious odors,*  
7            *or that create a public nuisance is prohibited. These materials include, but are not limited*  
8            *to, household garbage, plastics, wire, insulation, auto bodies, asphalt, waste petroleum*  
9            *products, rubber products, animal remains, and animal or vegetable wastes resulting*  
10           *from the handling, preparation, cooking, or service of food.*

11  
12 The applicant stated in Exhibit V that it would not burn any waste materials generated by the  
13 facility.

14  
15 Based on the above information, and in compliance with the recommended conditions above,  
16 the Council finds that the applicant's plans to manage the accumulation, storage, disposal and  
17 transportation of solid waste generated by the construction and operation of the facility are  
18 likely to minimize the amount of solid waste generated, and would likely result in minimal  
19 adverse impact on surrounding and adjacent areas.

20  
21 *Wastewater*

22  
23 Construction of the facility would generate small quantities of wastewater, primarily consisting  
24 of concrete washout water produced during turbine construction and substation foundation  
25 work. As explained in Exhibit V, concrete washout would be performed in the foundation  
26 excavation area of each turbine foundation or substation foundation, and the washout water  
27 would become part of the foundation along with any excess dried concrete solids or slurry.  
28 Email correspondence with DEQ, attached as Exhibit V, Attachment V-1, acknowledges this  
29 process for disposal of concrete washout water. DEQ's response to the applicant states that  
30 while there may not be environmental impacts associated with the proposed disposal method,  
31 there would be restrictions regarding this disposal process if the turbine or substation  
32 foundations are close to surface water, near shallow groundwater, or could impact drinking  
33 water wells. In order to protect surface water, groundwater, and drinking water sources, the  
34 Council adopts the following condition, requiring the applicant to work with the department, in  
35 consultation with DEQ, to confirm there are no surface waters, shallow groundwater, or  
36 drinking water sources that could be adversely impacted by usage of concrete washout water in  
37 turbine or substation construction.

38  
39            **Waste Minimization Condition 3:** Prior to construction, the certificate holder shall  
40            investigate and confirm that no surfaces waters, shallow groundwater, or drinking water  
41            sources will be adversely impacted by the usage of concrete washout water in the  
42            foundations of facility components, and shall submit an investigation report to the  
43            department. Prior to construction, the department, in consultation with DEQ, shall  
44            review the results of the investigation report and shall verify that the plan to dispose of

1 concrete washout water in the foundations of facility components is unlikely to  
2 adversely impact surface waters, shallow groundwater, or drinking water sources. The  
3 applicant's investigation shall be based on the anticipated final facility layout and  
4 design. If the results of the investigation show that the proposed concrete washout  
5 water disposal method would cause adverse impacts to surface water, shallow  
6 groundwater, or drinking water sources, the applicant shall propose mitigation  
7 measures to reduce potential impacts, for review and approval by the department in  
8 consultation with DEQ, prior to construction.

9  
10 The applicant expects to generate wastewater from other sources, including vehicle and  
11 equipment washing and water used for dust suppression and road development. During  
12 construction of the facility, the certificate holder would be subject to the requirements of a  
13 NPDES 1200-C construction stormwater permit, which establishes allowable wastewater  
14 sources and best management practices, and its associated Erosion and Sediment Control Plan.  
15 An ESCP establishes the best management practices for minimizing erosion of exposed soils in  
16 disturbed areas and preventing and controlling runoff that could adversely impact water  
17 quality. Soil Protection Condition 1 requires the applicant to finalize and implement the ESCP,  
18 as approved by DEQ. This measure would help protect soils and reduce wastewater and  
19 stormwater from leaving the site.<sup>376</sup> Vehicle and equipment washing would only occur at  
20 construction yards and would be in sufficiently small quantities to manage at the construction  
21 yards. Water would be used onsite during construction for dust suppression and road  
22 compaction; however, the applicant stated that this water is expected to evaporate or infiltrate  
23 into the ground and therefore would not contribute to wastewater volumes.<sup>377</sup>

24  
25 During facility construction, as explained in Exhibit V of the ASC, sanitary wastewater from  
26 portable toilets would be managed and disposed of by a licensed subcontractor in accordance  
27 with local jurisdictional regulations. During facility operation, the applicant explained that  
28 sanitary waste would be handled through an on-site septic system serving each of the O&M  
29 buildings. Operation of the facility would not otherwise generate wastewater or industrial  
30 wastewater, there would be no blade-washing, and the O&M buildings would typically generate  
31 minor quantities of wastewater as might be associated with a small office. Soil Protection  
32 Condition 7 requires the site certificate holder to secure any necessary permits from DEQ for  
33 construction and operation of the O&M building septic systems, thus further reducing potential  
34 impacts from improper management of wastewater during facility operation.

35  
36 Based on the above information, and subject to compliance with the conditions, the Council  
37 finds that the applicant's plans to manage the accumulation, storage, disposal and  
38 transportation of wastewater generated by the construction and operation of the facility are

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<sup>376</sup> The NPDES 1200-C permit is a federally delegated permit that is not under Council jurisdiction or governed by the site certificate pursuant to ORS 469.503(3). The NPDES 1200-C permit is discussed in greater detail in Section IV.D, *Soil Protection* of this final order.

<sup>377</sup> ASC, Exhibit V, pp. 7-8.

1 likely to minimize the amount of wastewater generated, and would likely result in minimal  
2 adverse impact on surrounding and adjacent areas.

3  
4 **Conclusions of Law**

5  
6 Based on the foregoing analysis, and in compliance with OAR 345-022-0120(2), the Council  
7 imposes the conditions listed above in the site certificate to address the Council's Waste  
8 Minimization standard.

9  
10 **IV.O. Public Health and Safety Standards for Wind Facilities [OAR 345-024-0010]**

11  
12 *To issue a site certificate for a proposed wind energy facility, the Council must find that the*  
13 *applicant:*

14  
15 *(1) Can design, construct and operate the facility to exclude members of the public from*  
16 *close proximity to the turbine blades and electrical equipment.*

17  
18 *(2) Can design, construct and operate the facility to preclude structural failure of the tower or*  
19 *blades that could endanger the public safety and to have adequate safety devices and testing*  
20 *procedures designed to warn of impending failure and to minimize the consequences of such*  
21 *failure.* **Findings of Fact**

22  
23 OAR Chapter 345, Division 24 requires the Council to consider specific public health and safety  
24 standards as they relate to wind facilities. In particular, the Council must evaluate the facility's  
25 means to exclude members of the public from close proximity to the turbine blades and  
26 electrical equipment and the applicant's ability to design, construct and operate the facility to  
27 prevent structural failure of the tower or blades and to provide sufficient safety devices to warn  
28 of failure. The Council's Structural standard is discussed in Section IV.C of this order. The  
29 applicant addressed the Public Health and Safety Standards for Wind Energy Facilities in Exhibit  
30 DD of the ASC.

31  
32 As described in the Exhibit DD, the facility would be located entirely on private property, which  
33 would restrict public access to turbine and other facility component locations.<sup>378</sup> Access roads  
34 improved or developed for proposed facility construction and operation would be gated or  
35 locked, when not actively in use, to limit public accessibility. Pad-mounted step-up transformers  
36 would be enclosed in steel boxes. Substations would be within a fenced and locked area.<sup>379</sup> The  
37 Council adopts the following conditions to exclude members of the public from close proximity  
38 to the turbine towers and electrical equipment:

39  
40 **Public Health and Safety Standards for Wind Facilities Condition 1:** During  
41 construction, the certificate holder shall install pad-mounted step-up transformers at

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<sup>378</sup> ASC, Exhibit DD, p. 1.

<sup>379</sup> ASC, Exhibit DD, p. 3.

1 the base of each tower in steel boxes designed to protect the public from electrical  
2 hazards.

3  
4 **Public Health and Safety Standards for Wind Facilities Condition 2:** During operation,  
5 the certificate holder shall ensure each facility substation is enclosed with appropriate  
6 fencing and locked gates to protect the public from electrical hazards.

7  
8 In addition to measures to discourage access to the site, the applicant also proposed to locate  
9 the turbine towers within the minimum safety setbacks of 110 percent of the maximum blade  
10 tip height (MBTH) from public roads, and 100 percent of the MBTH from non-participating  
11 landowners. Further, the turbine blade tip would be a minimum of 80 feet above ground. These  
12 measures are consistent with applicable development standards within Morrow and Umatilla  
13 County, and have been included in the site certificate as Land Use Conditions 1 and 2.

14  
15 Based on this analysis and subject to compliance with these conditions and on compliance with  
16 Land Use Conditions 1 and 2, the Council finds that the facility could be designed to minimize  
17 potential risk and impacts in the highly unlikely event of a catastrophic collapsed turbine or  
18 thrown blade to public roads and nonparticipating property owners.

19  
20 Subsection (2) of the standard relates to the protection of public health and safety from  
21 structural failure, including the installation of appropriate safety devices and testing procedures  
22 to warn of failure and minimize impact.

23  
24 The applicant stated in the ASC that the selected turbines are designed with several levels of  
25 built-in safety and comply with the codes set forth by the Occupational Safety and Health  
26 Administration and American National Standards Institute. The wind turbines would also be  
27 equipped with Supervisory Control and Data Acquisition (SCADA) systems that would allow for  
28 remote control and monitoring of individual turbines and the wind facility as a whole from both  
29 the central host computer or from a remote computer.

30  
31 To ensure proper handling and to prevent damage to the towers or blades that could lead to  
32 failure, and to ensure adequate safety measures are in place to detect any signs of wear or  
33 potential for failure, the Council adopts the following conditions:

34  
35 **Public Health and Safety Standards for Wind Facilities Condition 3:** During construction  
36 and operation, the certificate holder shall follow manufacturers' recommended  
37 handling instructions and procedures to prevent damage to turbine or turbine tower  
38 components.

39  
40 **Public Health and Safety Standards for Wind Facilities Condition 4:** During  
41 construction, the certificate holder shall install and maintain self-monitoring devices on  
42 each turbine, linked to sensors at the operations and maintenance building, connected  
43 to a fault annunciation panel or supervisory control and data acquisition (SCADA)  
44 system to alert operators to potentially dangerous conditions. The certificate holder

1 shall maintain automatic equipment protection features in each turbine that would shut  
2 down the turbine and reduce the chance of a mechanical problem causing a fire. The  
3 certificate holder shall immediately remedy any dangerous conditions.  
4

5 **Public Health and Safety Standards for Wind Facilities Condition 5:** The certificate  
6 holder shall notify the department, the Morrow County Planning Department and the  
7 Umatilla County Planning Department within 72 hours of any accidents including  
8 mechanical failures on the site associated with construction or operation of the facility  
9 that may result in public health or safety concerns.  
10

11 Based on this analysis, and subject to compliance with these conditions, the Council finds that  
12 the applicant can design, construct and operate the facility to preclude structural failure of the  
13 tower or blades that could endanger the public safety and to have adequate safety devices and  
14 testing procedures designed to warn of impending failure and to minimize the consequences of  
15 such failure.  
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 Council finds that the facility would comply with the Council's Public  
21 Health and Safety Standards for Wind Facilities.  
22

#### 23 **IV.P. Cumulative Effects Standard for Wind Energy Facilities [OAR 345-024-0015]**

24

25 *To issue a site certificate for a proposed wind energy facility, the Council must find that the*  
26 *applicant can design and construct the facility to reduce cumulative adverse environmental*  
27 *effects in the vicinity by practicable measures including, but not limited to, the following:*  
28

29 *(1) Using existing roads to provide access to the facility site, or if new roads are needed,*  
30 *minimizing the amount of land used for new roads and locating them to reduce adverse*  
31 *environmental impacts.*

32 *(2) Using underground transmission lines and combining transmission routes.*

33 *(3) Connecting the facility to existing substations, or if new substations are needed,*  
34 *minimizing the number of new substations.*

35 *(4) Designing the facility to reduce the risk of injury to raptors or other vulnerable wildlife*  
36 *in areas near turbines or electrical equipment.*

37 *(5) Designing the components of the facility to minimize adverse visual features.*

38 *(6) Using the minimum lighting necessary for safety and security purposes and using*  
39 *techniques to prevent casting glare from the site, except as otherwise required by the*  
40 *Federal Aviation Administration or the Oregon Department of Aviation.*  
41  
42  
43  
44



1 **Findings of Fact**

2

3 This standard requires the use of practicable measures to reduce the “cumulative adverse  
4 environmental effects” compared to possible wind energy facility effects in the absence of  
5 those measures. Merriam-Webster online dictionary defines “practicable” as: “Capable of being  
6 put into practice or of being done or accomplished: Feasible.” The standard is limited to  
7 environmental effects that are capable of being reduced and does not require the Council to  
8 find that a wind energy facility would have no cumulative environmental impacts.<sup>380</sup>

9 The applicant addressed the Cumulative Effects Standard for Wind Energy Facilities in Exhibit  
10 DD, which includes information regarding the measures specified in the standard to reduce  
11 cumulative adverse environmental effects.

12

13 *Access Roads*

14

15 OAR 345-024-0015(1) encourages the use of existing roads for facility site access, minimizing  
16 the amount of land used for new roads, and locating new roads in such a manner that reduces  
17 adverse environmental impacts. The applicant explained that the facility would utilize up to 73  
18 miles of access roads, of which approximately 61 miles would be new and 12 miles would be  
19 improvements to existing roads. Location, route, slope, and road ownership limit the ability of  
20 the applicant to utilize other existing farm roads during facility construction and operation. As  
21 explained in Exhibit B of the ASC, newly constructed and improved access roads would result in  
22 a 39-foot temporary impact corridor and a 16-foot permanent impact corridor. The applicant  
23 would site new access roads along farm field edges to limit overall impacts to soils, habitat and  
24 agricultural practices. In addition, the applicant would be required to obtain a NPDES-1200 C  
25 permit to manage stormwater runoff during proposed facility construction; the NPDES-1200 C  
26 contains best management practices required to reduce and minimize sediment and erosion  
27 from stormwater run-off. Compliance with the NPDES-1200 C permit would minimize soil and  
28 agricultural impacts during access road improvements and construction.

29

30 Based on the evidence in the record, the Council finds that the applicant has demonstrated that  
31 it would use existing roads where practicable to provide access to the facility site, and where  
32 new roads would be needed they would be located to reduce adverse environmental impacts  
33 and constructed in a manner that minimizes the amount of land used.

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<sup>380</sup> On the record of the public hearing, Ms. Gilbert/FGRV and T. Lindsay noted the lack of a cumulative impact assessment of the proposed facility and other energy developments on wildlife and resources of the state. Ms. Gilbert/FGRV provided her comments on the ASC submitted to the Umatilla County Planning Department in August 2015. The department noted that the Council’s Cumulative Effects Standard for Wind Energy Facilities requires an applicant to demonstrate that the proposed facility could be designed and constructed to reduce cumulative adverse environmental impacts from proposed facility roads, transmission lines, substations, visual impacts and lighting. The Council concurs with the department that the evaluation of cumulative impacts from existing and proposed wind developments requested by Ms. Gilbert/FGRV and T. Lindsay is not required to satisfy an applicable Council standard. WRWAPPDoc100 DPO Public Comment\_I. Gilbert 2016-06-06; WRWAPPDoc115 DPO Public Comment\_T. Lindsay 2016-06-06.

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*Transmission Lines and Substations*

OAR 345-024-0015(2) and (3) encourage proposed wind facilities to utilize underground transmission lines, combine transmission routes and minimize the number of new substations. As described in the ASC, the facility includes underground and, potentially in some locations, aboveground 34.5-kV collector lines, three onsite collector substations and up to two, parallel overhead, 230–kV intraconnection transmission lines.<sup>381</sup>

The applicant stated that the collector lines, wherever feasible, would be installed underground within narrow trenches, typically 3 feet below ground. However, in some instances, due to site-specific conditions, the collector lines would be installed on aboveground wooden or steel pole structures to allow the collector cables to span terrain such as canyons and intermittent streams, thereby reducing environmental impacts.<sup>382</sup> The applicant estimated that the facility would include up to 88 miles of underground collector lines and up to 11 miles of overhead collector lines.<sup>383</sup>

The new overhead 230-kV intraconnection transmission line(s) would extend approximately 32 miles and would connect a collector substation located in Wheatridge East to collector substations located in Wheatridge West. The transmission line(s) would be supported by 60-foot tall H-frame or steel monopole structures sited 400 to 800 feet apart. The transmission line, as explained in Exhibit B of the ASC, would require a 150-foot right-of-way which would extend 75 feet on either side of the centerline. The applicant would site the intraconnection transmission lines to avoid high ground and public roads to minimize visual impacts, and far from existing residences to avoid noise and electromagnetic impacts.

As explained in Exhibit B, the applicant would construct up to three collector substations – up to two substation located in Wheatridge West and one collector substation located in Wheatridge East. The substations are necessary to convert the 34.5 kV power from the collector system to 230-kV for efficient transmission to the power grid. The applicant did not propose construction or operation of a substation that would connect the facility to the grid, which would be provided by a third-party. The applicant indicated that the substation would be utilized by multiple parties and would not be dedicated solely for use by the facility. Multi-use of the substation would reduce the overall number of substations necessary for operation of the facility and other energy facilities and utilities in the area.

Based on the evidence in the record, the Council finds the applicant has demonstrated that it can reduce cumulative adverse environmental effects in the vicinity by minimizing aboveground transmission line routes and minimizing the number of new substations.

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<sup>381</sup> ASC, Exhibit DD, p. 4.  
<sup>382</sup> ASC, Exhibit DD, p. 5.  
<sup>383</sup> ASC, Exhibit B, pp. 6-7.

1 *Wildlife Protection*

2

3 OAR 345-024-0015(4) encourages facility design that reduces the risk of injury to raptors or  
4 other vulnerable wildlife in areas near turbines or electrical equipment. A more detailed  
5 discussion of impacts and mitigation of potential adverse impacts to wildlife are addressed in  
6 Sections IV.G, *Fish and Wildlife Habitat* and IV.H, *Threatened and Endangered Species* of this  
7 order.

8

9 To minimize raptor injury, the applicant would design the facility using the suggested practices  
10 outlined by the Avian Power Line Interaction Committee, which includes minimum spacing  
11 requirements and the use of anti-perch guards.<sup>384</sup> Additionally, the applicant would site the  
12 facility predominately within existing agricultural fields and utilizing existing access roads to the  
13 greatest extent practicable to avoid impacts to wetlands and to critical or Category 1 habitat,  
14 and to minimize impacts to other important habitat types. As explained in Exhibit DD of the  
15 ASC, the applicant would implement the following measures to reduce and avoid wildlife  
16 impacts:

17

18

- Conduct raptor nest monitoring
- Implement seasonal construction timing restrictions
- Employ on-site environmental monitors during construction;
- Implement dust abatement measures;
- Observe low speed limits;
- Implement measures to control the spread of invasive weed species; and,
- Restore disturbed areas as soon as practicable following completion of construction,  
as outlined in the Revegetation Plan

26

27 As presented in Exhibit DD, and as required by the conditions in Section IV.H and IV.I, *Fish and*  
28 *Wildlife Habitat* and *Threatened and Endangered Species* of this final order, the applicant would  
29 be required to implement and comply with requirements and measures established in the  
30 Habitat Mitigation Plan and the Wildlife Monitoring and Mitigation Plan.

31

32 Based on the evidence in the record and subject to compliance with these site certificate  
33 conditions, the Council finds the applicant has demonstrated that it can reduce cumulative  
34 adverse environmental effects in the vicinity by designing the facility to reduce the risk of injury  
35 to raptors or other vulnerable wildlife in areas near turbines or electrical equipment.

36

37 *Visual Features*

38

39 OAR 345-024-0015(5) encourages the certificate holder to design a facility to minimize adverse  
40 visual features. Exhibit R in the ASC, and Section IV.J, *Scenic Resources* of this order provide a

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<sup>384</sup> ASC, Exhibit DD, p. 5.

1 more detailed discussion of visual impacts, mitigation measures, and site certificate conditions  
2 to minimize the visual impacts of the proposed facility.

3  
4 The most visible facility components would be the turbine towers; aboveground 34-kV collector  
5 lines; the 35-mile long 230-kV transmission line(s); and 12 meteorological towers up to 328 feet  
6 high.<sup>385</sup> The turbine blade tips could be as high as 492 feet, and steel monopole or H-frame  
7 structures could be as high as 120 feet or 85 feet above grade, respectively.

8  
9 The applicant would implement the following measures to further reduce any potential visual  
10 impacts from the facility:

- 11  
12 (a) The O&M buildings would be designed and constructed to be generally consistent with  
13 the character of agricultural buildings used by farmers or ranchers in the area, and the  
14 buildings finished in a neutral color to blend with the surrounding landscape;  
15 (b) Substation structures would be finished in neutral colors to blend with the surrounding  
16 landscape;  
17 (c) Lighting would be kept to a minimum necessary, and designed to prevent offsite glare;  
18 (d) No advertising or commercial signage would be displayed on any part of the proposed  
19 facility;  
20 (e) Vegetation clearing and ground disturbance would be limited to the minimum area  
21 necessary to safely and efficiently install the facility equipment;  
22 (f) Access roads and other areas of ground disturbance would be watered during  
23 construction, as needed, to avoid the generation of airborne dust; and  
24 (g) Temporary impact areas would be restored and revegetated as soon as practicable  
25 following completion of construction.

26  
27 The measures described above are included in Scenic Resources Condition 2, which also  
28 requires the certificate holder to use neutral colors and low-reflectivity for facility components  
29 and reduce outdoor lighting impacts from collector substations and operations and  
30 maintenance buildings.

31  
32 Based on the evidence in the record and subject to compliance with these site certificate  
33 conditions, the Council finds the applicant has demonstrated that it can reduce cumulative  
34 adverse environmental effects in the vicinity by designing the components of the facility to  
35 minimize adverse visual features.

### 36 37 *Lighting*

38  
39 OAR 345-024-0015(6) requires the use of techniques to prevent casting glare from the site and  
40 the use of minimum lighting necessary for safety and security purposes, except as otherwise  
41 required by the Federal Aviation Administration and the Oregon Department of Aviation. As  
42 provided in Exhibit DD of the ASC, the applicant proposed that intensity of exterior lighting and

---

<sup>385</sup> ASC, Exhibit B, p. 13.

1 the number of aviation warning lights required by the FAA on turbines would be minimized  
2 while complying with FAA requirements.

3  
4 In Section IV.J, *Scenic Resources* of this final order the Council adopts Scenic Resources  
5 Condition 1, requiring the certificate holder to implement mitigation measures for the impacts  
6 of nighttime lighting, including the use of downward directed and hooded lights on facility  
7 structures and use of sensors and timers to keep lights off when not needed.

8  
9 Based on the evidence in the record and subject to compliance with these site certificate  
10 conditions, the Council finds the applicant has demonstrated that it can reduce cumulative  
11 adverse environmental effects in the vicinity by designing the components of the facility to  
12 minimize the adverse impacts of lighting.

13  
14 *Other*

15  
16 No other practicable measures were identified in the ASC or by the Council to reduce the  
17 cumulative adverse environmental impacts from the design and construction of the facility.

18  
19 **Conclusions of Law**

20  
21 Based on the foregoing findings of fact and conclusions, and subject to compliance with the site  
22 certificate conditions, the Council finds that the facility would comply with the Council's  
23 Cumulative Effects Standards for Wind Energy Facilities.

24  
25 **IV.Q. Siting Standards for Transmission Lines [OAR 345-024-0090]**

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

29  
30 *(1) Can design, construct and operate the proposed transmission line so that alternating*  
31 *current electric fields do not exceed 9 kV per meter at one meter above the ground*  
32 *surface in areas accessible to the public;*

33  
34 *(2) Can design, construct and operate the proposed transmission line so that induced*  
35 *currents resulting from the transmission line and related or supporting facilities will be*  
36 *as low as reasonably achievable.*

37  
38 **Findings of Fact**

39  
40 The siting standard for transmission lines addresses safety hazards associated with electric and  
41 magnetic fields generated by high-voltage transmission lines. OAR 345-024-0090(1) sets a limit  
42 for electric fields from transmission lines of not more than 9 kV per meter at 1 meter above the  
43 ground surface in areas that are accessible to the public. Section (2) requires the certificate  
44 holder design, construct and operate the line in a manner that reduces the risk posed by

1 induced current. The applicant provided information on the Siting Standards for Transmission  
2 Lines in Exhibit AA of the ASC.

3  
4 *Electric Fields*

5  
6 As explained in Exhibit AA, electric fields around transmission lines are produced by the presence  
7 of an electric charge, measured as voltage, on the energized conductor. Electric field strength is  
8 directly proportional to the line's voltage; increased voltage produces a stronger electric field.  
9 The strength of the electric field is inversely proportional to the distance from the conductors;  
10 the electric field strength declines as the distance from the conductor increases.<sup>386</sup>

11  
12 The applicant calculated the electric fields, measured in units of kilovolts per meter (kV/m),  
13 which would be produced by both the aboveground 34.5-kV collector lines and the aboveground  
14 230-kV intraconnection transmission line(s) using a model developed by the Electric Power  
15 Research Institute (EPRI) that utilizes a methodology developed by BPA.<sup>387</sup> To estimate the  
16 maximum electric field strength, the calculations in the model were performed at mid-span  
17 where the conductors sag to their lowest point between structures. As described in Exhibit AA,  
18 the field strength estimates were then computed for a height of one meter (3.3 feet) above the  
19 ground surface throughout the entire right-of-way, and extending outward 60.96 meters (200  
20 feet) to each side of the centerline of the intraconnection transmission line.<sup>388</sup>

21  
22 The applicant is considering two options for the proposed 34.5-kV overhead collector lines:  
23 single-circuit monopole and double-circuit monopole. The applicant modeled the electric and  
24 magnetic fields for each option using a minimum conductor-to-ground clearance of 25 feet.<sup>389</sup>  
25 For the single-circuit 34.5-kV collector lines on monopoles, the calculated maximum electric field  
26 strength at 1 meter above ground surface was estimated at 0.34 kV per meter, while the double-  
27 circuit option yielded a maximum of 0.23 kV per meter.<sup>390</sup>

28  
29 The applicant is also considering five options for the 230-kV overhead transmission line  
30 structures: a single-circuit 2-pole (Configuration A); a single-circuit monopole (Configuration B); a  
31 double-circuit monopole (Configuration C); a double-circuit monopole, with phased circuit  
32 installation (Configuration D); and, two separate single-circuit monopole (Configuration E). The  
33 applicant modeled electric and magnetic fields for each option using a minimum conductor-to-  
34 ground clearance of 30 feet.<sup>391</sup> The calculated maximum electric field strength at one meter  
35 above ground surface was 3.75 kV per meter for the single-circuit 2-pole (Configuration A); 3.39  
36 kV per meter for the single-circuit monopole (Configuration B); 1.48 kV per meter for the

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<sup>386</sup> ASC, Exhibit AA, p. 2.

<sup>387</sup> ASC, Exhibit AA, p. 5.

<sup>388</sup> ASC, Exhibit AA, p. 5.

<sup>389</sup> ASC, Exhibit AA, p. 14.

<sup>390</sup> ASC, Exhibit AA, p. 25.

<sup>391</sup> ASC, Exhibit AA, p. 7.

1 double-circuit monopole (Configuration C); 2.17 kV per meter for the double-circuit monopole,  
2 with phased circuit installation (Configuration D); and, 2.35 kV per meter for the two separate  
3 single-circuit monopole (Configuration E) option.<sup>392</sup>

4  
5 Based upon review of the applicant’s calculations in Exhibit AA, the Council finds that the  
6 applicant’s configurations of the aboveground segments of the 34.5-kV collector lines and the  
7 two, parallel 230-kV transmission line(s), for any of the five options, would not exceed 9 kV per  
8 meter at one meter above ground level.

9  
10 *Induced Voltage and Current*

11  
12 The Siting Standards for Transmission Lines requires the Council to find that the applicant “can  
13 design, construct and operate the proposed transmission line so that induced currents resulting  
14 from the transmission line and related or supporting facilities will be as low as reasonably  
15 achievable.”

16  
17 As explained in Exhibit AA, the flow of electricity in a transmission line can induce a small  
18 electric charge, or voltage, in nearby conductive objects. An induced electric charge can flow, or  
19 become electric current, when a path to ground is presented. Induced current can be observed  
20 as a continuous flow of electricity or, under some circumstances as a sudden discharge,  
21 commonly known as a ‘nuisance shock.’ Passing current through grounding wire minimizes the  
22 current that would otherwise flow through a person or animal that comes in contact with the  
23 object. Because the underground 34.5-kV cables would not create an electric field at the  
24 ground surface, they would not present an induced voltage risk. The aboveground 34.5-kV  
25 collector lines and 230-kV intraconnection transmission line(s) would however create an  
26 induced voltage risk.

27  
28 The strength of a magnetic field is a function of the current (amperage) in the electric  
29 transmission line: the higher the current, the greater the strength of the magnetic field.  
30 Magnetic field strength decreases as the distance from the conductor increases. Magnetic field  
31 strength is at its maximum directly below transmission lines. Based on the analysis provided by  
32 the applicant, the predicted magnetic field strength for the five 230-kV transmission line  
33 options range from 65.84 milligauss (mG) to 259.25 mG at a point directly beneath the line. At  
34 the edge of the right-of-way, 100 feet away from centerline, the maximum modeled magnetic  
35 field strength is approximately 56.10 mG.<sup>393</sup> For the aboveground 34.5-kV collector line  
36 configurations, the maximum predicted magnetic field strength ranges from 38.19 to 73.30  
37 mG.<sup>394</sup>

38  
39 Prior to construction, to prevent induced current and nuisance shocks, the applicant would  
40 identify and ground wire fences, pipelines, irrigation lines, metal roofs, and other objects near

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<sup>392</sup> ASC, Exhibit AA, p. 18.

<sup>393</sup> ASC, Exhibit AA, Table AA-5.

<sup>394</sup> ASC, Exhibit AA, Table AA-7.

1 the intraconnection transmission line(s) and aboveground collector lines. To prevent induced  
2 current and nuisance shocks of mobile equipment, which cannot be permanently grounded, the  
3 applicant would increase the intraconnection transmission line height, shield the electric field,  
4 or install access barriers, if determined necessary based on final design. The applicant stated  
5 that facility construction and operation would follow proper grounding practices and adhere to  
6 the National Electric Safety Code requirements, ensuring induced currents are maintained at  
7 safe and reasonable levels. Based on measures the applicant would implement to reduce  
8 human exposure to electric and magnetic fields, the Council adopts the following condition:<sup>395</sup>  
9

10 **Siting Standard Condition 1:** During construction, the certificate holder shall take  
11 reasonable steps to reduce or manage human exposure to electromagnetic fields,  
12 including:  
13

- 14 a. Constructing all aboveground collector and transmission lines at least 200 feet from  
15 any residence or other occupied structure, measured from the centerline of the  
16 transmission line.
- 17 b. Constructing all aboveground 34.5-kV transmission lines with a minimum clearance of  
18 25 feet from the ground.
- 19 c. Constructing all aboveground 230-kV transmission lines with a minimum clearance of  
20 30 feet from the ground.
- 21 d. Developing and implementing a program that provides reasonable assurance that all  
22 fences, gates, cattle guards, trailers, irrigation systems, or other objects or structures  
23 of a permanent nature that could become inadvertently charged with electricity are  
24 grounded or bonded throughout the life of the line (OAR 345-027-0023(4)).
- 25 e. Providing to landowners a map of underground and overhead transmission lines on  
26 their property and advising landowners of possible health and safety risks from  
27 induced currents caused by electric and magnetic fields.
- 28 f. Designing and maintaining all transmission lines so that alternating current electric  
29 fields do not exceed 9 kV per meter at one meter above the ground surface in areas  
30 accessible to the public.
- 31 g. Increasing the intraconnection transmission line height, shielding the electric field, or  
32 installing access barriers, if needed, to prevent induced current and nuisance shock of  
33 mobile vehicles.
- 34 h. Designing and maintaining all transmission lines so that induced voltages during  
35 operation are as low as reasonably achievable.

---

<sup>395</sup> In the draft proposed order, recommended Siting Standard Condition 1(d) stated, "Identifying and grounding wire fences, pipelines, irrigation lines, metal roofs, and other objects within the intraconnection transmission line(s) and aboveground collector lines right-of-way." Due to redundancy of the language and requirements of this provision with recommended Site Specific Condition 1 and Land Use Condition 29, as recommended in the draft proposed order, Site Specific Condition 1 and Land Use Condition 29 were incorporated into recommended Siting Standard Condition 1 and the language of Siting Standard Condition 1 (d) and Land Use Condition 29 were deleted in the proposed order.



- 1 i. Designing, constructing and operating the transmission line in accordance with the
- 2 requirements of the 2012 Edition of the National Electrical Safety Code approved on
- 3 June 3, 2011 by the American National Standards Institute (OAR 345-027-0023(4)).
- 4 j. Implement a safety protocol to ensure adherence to NESC grounding requirements
- 5

6 On the record of the public hearing, Ms. Gilbert/FGRV and T. Lindsay commented that impacts  
7 to safety and health of people and animals from EMF from the transmission line needs to be  
8 addressed. Ms. Gilbert/FGRV further requested that the Council impose a condition requiring  
9 the certificate holder to document the rating of EMF at ground level for buried transmission  
10 lines of different voltages and depths as well as aboveground transmission lines of differing  
11 voltages used at the site.<sup>396</sup>

12  
13 While not specifically an EMF standard, the Siting Standards for Transmission Lines (OAR 345-  
14 024-0090) establish limits for alternating current electric fields and induced currents from  
15 transmission lines. As presented above, the applicant modeled EMF from the intraconnection  
16 transmission line. Results of the modeling would not exceed the 9 kV per meter at one meter  
17 above ground surface limit pursuant to OAR 345-024-0090(1). Further, Siting Standard  
18 Condition 1 includes measures to reduce or manage exposure to EMF. The requirements  
19 established in this condition include designing and maintaining all transmission lines so that  
20 alternating current electric fields do not exceed 9 KV per meter at one meter above the ground  
21 surface in areas accessible to the public. Pursuant to OAR 345-026-0048, following issuance of a  
22 site certificate, the certificate holder is responsible for developing and implementing a plan that  
23 verifies compliance with each site certificate condition. Therefore, the measures proposed by  
24 Ms. Gilbert/FGRV would be achieved through compliance with OAR 345-026-0048 and Siting  
25 Standard Condition 1.

26  
27 On the record of the June 6, 2016 public hearing, D. Richards requested that underground  
28 collector lines be placed in conduit to ensure adequate protection from wildlife impacts.<sup>397</sup> As  
29 presented above, Siting Standard Condition 1 would require underground collector lines be  
30 constructed in accordance with NESC standards. NESC standards provide specifications for  
31 placement of underground lines at certain burial depths (direct buried lines) and lines placed  
32 within conduit, but do not establish a requirement for underground lines to be placed in  
33 conduit. Therefore, the Council would not have the authority to impose the requirement  
34 requested by D. Richards.

35  
36 In a comment letter, the Oregon Public Utilities Commission (PUC) recommended conditions to  
37 ensure compliance with applicable safety requirements.<sup>398</sup> In accordance with the PUC request,  
38 and in order to ensure compliance with OAR 345-024-0090, the Council adopts the following  
39 conditions:

---

<sup>396</sup> WRWAPPDoc68 DPO Public Comment\_I. Gilbert 2016-05-19; WRWAPPDoc115 DPO Public Comment\_T. Lindsay  
2016-06-06

<sup>397</sup> WRWAPPDoc97 DPO Public Comment\_D. Richards 2016-06-06

<sup>398</sup> WRWAPPDoc49, Agency Comments PUC, 02-06-2015.

1  
2 **Siting Standard Condition 2:** Prior to construction, the certificate holder shall schedule a  
3 time to brief the OPUC Safety, Reliability, and Security Division (Safety) Staff as to how it  
4 will comply with OAR Chapter 860, Division 024 during design, construction, operations,  
5 and maintenance of the facilities.

6 **Siting Standard Condition 3:** During operation, the certificate holder shall:

7 (1) Update the OPUC Safety Staff as to how the operator will comply with OAR Chapter  
8 860, Division 024 on an ongoing basis considering future operations, maintenance,  
9 emergency response, and alterations until facility retirement.

10 (2) File the following required information with the Commission:

11 a. 758.013 Operator of electric power line to provide Public Utility Commission  
12 with safety information; availability of information to public utilities. (1) Each  
13 person who is subject to the Public Utility Commission's authority under ORS  
14 757.035 and who engages in the operation of an electric power line as  
15 described in ORS 757.035 must provide the commission with the following  
16 information before January 2 of each even-numbered year:

- 17 i. The name and contact information of the person that is responsible  
18 for the operation and maintenance of the electric power line, and for  
19 ensuring that the electric power line is safe, on an ongoing basis; and  
20 ii. The name and contact information of the person who is responsible  
21 for responding to conditions that present an imminent threat to the  
22 safety of employees, customers and the public.  
23 iii. In the event that the contact information described in subsection (1)  
24 of this section changes or that ownership of the electric power line  
25 changes, the person who engages in the operation of the electric  
26 power line must notify the commission of the change as soon as  
27 practicable, but no later than within 90 days.  
28 iv. If the person described in subsection (1) of this section is not the  
29 public utility, as defined in ORS 757.005, in whose service territory the  
30 electric power line is located, the commission shall make the  
31 information provided to the commission under subsection (1) of this  
32 section available to the public utility in whose service territory the  
33 electric power line is located. [2013 c.235 §3]

34  
35 (3) Provide OPUC Safety Staff with:

36 a. Maps and Drawings of routes and installation of electrical supply lines  
37 showing:

- 38 • Transmission lines and structures (over 50,000 Volts)  
39 • Distribution lines and structures - differentiating underground and  
40 overhead lines (over 600 Volts to 50,000 Volts)  
41 • Substations, roads and highways

42  
43 b. Plan and profile drawings of the transmission lines (and name and contact  
44 information of responsible professional engineer).

1  
2 Based upon review of the applicant's evaluation presented in Exhibit AA, the Council finds that  
3 the applicant can design, construct and operate the transmission and collector lines so that  
4 induced currents and nuisance shocks would be as low as reasonably achievable.

5  
6 **Conclusions of Law**

7  
8 Based on the foregoing findings of fact and conclusions, and subject to compliance with the site  
9 certificate conditions, the Council finds that the facility would comply with the Council's Siting  
10 Standards for Transmission Lines.

11  
12 **IV.R. Noise Control Regulations [OAR 340-035-0035]**

13  
14 *(1) Standards and Regulations:*

15 \*\*\*

16 *(b) New Noise Sources:*

17 \*\*\*

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

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

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

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

33 *(I) The increase in ambient statistical noise levels is based on an assumed*  
34 *background L50 ambient noise level of 26 dBA or the actual ambient background*  
35 *level. The person owning the wind energy facility may conduct measurements to*  
36 *determine the actual ambient L10 and L50 background level.*

37 *(II) The "actual ambient background level" is the measured noise level at the*  
38 *appropriate measurement point as specified in subsection (3)(b) of this rule using*  
39 *generally accepted noise engineering measurement practices. Background noise*  
40 *measurements shall be obtained at the appropriate measurement point,*  
41 *synchronized with windspeed measurements of hub height conditions at the*  
42 *nearest wind turbine location. "Actual ambient background level" does not include*  
43 *noise generated or caused by the wind energy facility.*

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

40           \*\*\*

1 **Findings of Fact**

2  
3 The applicant addressed compliance with the DEQ noise regulations in Exhibit X of the ASC. The  
4 facility would be a new industrial or commercial noise source under OAR 340-035-0035 because  
5 construction of the facility would commence after January 1, 1975.<sup>399</sup> There is no evidence in the  
6 record that the facility site has been in industrial or commercial use at any time during the last 20  
7 years, therefore the site is considered a previously unused site and evaluated per the  
8 requirements of OAR 340-035-0035(1)(b)(B).<sup>400</sup> The requirements of OAR 340-035-  
9 0035(1)(b)(B)(iii) apply to noise levels generated by a “wind energy facility.”<sup>401</sup> Therefore, the  
10 facility is reviewed under OAR 340-035-0035(1)(b)(B)(iii).

11  
12 Under the regulation, the noise generated by a new wind energy facility located on a previously  
13 unused site must comply with two tests: the “ambient noise degradation test” and the  
14 “maximum allowable noise test.” Under the ambient noise degradation test, facility-generated  
15 noise must not increase the ambient hourly L10 or L50 noise levels (defined in Table NC-1,  
16 *Statistical Noise Limits for Industrial and Commercial Noise Sources* below) at any noise  
17 sensitive property by more than 10 dBA when turbines are operating “between cut-in speed  
18 and the wind speed corresponding to the maximum sound power level.” To show that a  
19 proposed facility complies with this test, the applicant may use an assumed ambient hourly L50  
20 noise level of 26 dBA or measure the actual ambient hourly noise levels at the receiver in  
21 accordance with the procedures specified in the regulation. In this case, the applicant has  
22 elected to use an assumed ambient hourly L50 noise level of 26 dBA.

23  
24 To demonstrate compliance with the ambient noise degradation test, the noise generated  
25 during proposed facility operation must not cause the hourly L<sub>50</sub> noise level at any noise-  
26 sensitive property to exceed 36 dBA. However, OAR 340-035-0035(1)(b)(B)(iii)(III) relieves the  
27 applicant from having to show compliance with the ambient noise degradation test “if the  
28 person who owns the noise sensitive property executes a legally effective easement or real  
29 covenant that benefits the property on which the wind energy facility is located” (a “noise  
30 waiver”).

31  
32 Under the maximum allowable noise test at OAR 340-035-0035(1)(b)(B)(i) a wind energy facility  
33 may not exceed the noise levels specified in Table 8 of the noise rules and presented in Table  
34 NC-1, *Statistical Noise Limits for Industrial and Commercial Noise Sources*. Pursuant to OAR 340-  
35 035-0035(1)(b)(B)(iii)(III), it is not possible for a property owner to waive an exceedance under  
36 the maximum allowable noise test.

37  

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<sup>399</sup> OAR 340-035-0015(33) defines “new industrial or commercial noise source.” Agricultural activities and silvicultural activities generating infrequent noise emissions are not considered industrial or commercial operations under the definition.

<sup>400</sup> OAR 340-035-0015(47) defines “previously unused industrial or commercial site.”

<sup>401</sup> OAR 340-035-0035(1)(b)(A).

**Table NC-1: Statistical Noise Limits for Industrial and Commercial Noise Sources**

| Statistical Descriptor <sup>1</sup> | Maximum Permissible Hourly Statistical Noise Levels (dBA) |                                |
|-------------------------------------|---|--------------------------------|
|                                     | Daytime (7:00 AM - 10:00 PM)                              | Nighttime (10:00 PM - 7:00 AM) |
| L50                                 | 55  | 50                             |
| L10                                 | 60  | 55                             |
| L1                                  | 75  | 60                             |

Notes:  
 1. The hourly L50, L10 and L1 noise levels are defined as the noise levels equaled or exceeded 50 percent, 10 percent, and 1 percent of the hour, respectively.  
 Source: OAR 340-035-0035, Table 8

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*Noise Sources – Construction*

OAR 340-035-0035(5)(g) specifically exempts noise caused by construction activities. Construction of the facility would produce localized, short-duration noise levels similar to those produced by any large construction project with heavy construction equipment. The applicant proposed mitigation measures in the ASC to minimize temporary noise levels generated during construction of the facility. OAR 345-027-0020(10) states that “[t]he Council shall include as conditions in the site certificate all representations in the ASC and supporting record the Council deems to be binding commitments made by the applicant.” Therefore, the Council considers the proposed mitigation as binding commitments and adopts the following condition:

**Noise Control Condition 1:** 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

1 process to the owner shall be established prior to the start of construction that will  
2 allow for resolution of noise problems that cannot be resolved by the site supervisor  
3 in a reasonable period of time. Records of noise complaints during construction  
4 must be made available to authorized representatives of the department upon  
5 request.  
6

7 *Noise Sources - Operation*  
8

9 The applicant's facility would include up to 292 wind turbines, and up to three substation  
10 transformers. The generator installed in each turbine would have a nameplate rating of 1.7 to  
11 2.5 MW, depending on the turbine model the applicant selects. The transformer proposed for  
12 the Wheatridge East substation would be no greater than 135 megavolt ampere (MVA) and the  
13 two transformers proposed for the Wheatridge West substation would be no greater than 220  
14 MVA, each.  
15

16 For its analysis, the applicant assumed the layout utilizing the minimum (200) and maximum  
17 number of turbines proposed (292). The applicant conducted acoustic modeling using the  
18 Computer Aided Noise Abatement (CadnaA), version 4.4.145 software program to make the  
19 predictions of peak noise levels at noise-sensitive properties within the analysis area. The  
20 program includes sound propagation factors adopted from International Organization for  
21 Standardization's (ISO) 9613-2 "Attenuation of Sound during Propagation Outdoors" to account  
22 for geometric divergence, atmospheric absorption, reflection from surfaces, screening by  
23 topography and obstacles, terrain complexity and ground effects, source directivity factors,  
24 seasonal foliage effects, and meteorological conditions.  
25

26 The applicant described the input data used for each turbine type that it used in its acoustic  
27 modeling. The applicant provided a summary of sound power data for the selected GE 1.7-103  
28 and 2.5-120 turbines, correlated by wind speed. The summaries include data for operation only  
29 in NRO modes, which include a range of settings provided by the manufacturer to minimize  
30 sound power levels emanating from turbines. The summaries are provided in Table X-5 of  
31 Exhibit K.<sup>402</sup> The applicant also included an allowance of +2 dBA to account for uncertainty.<sup>403</sup>  
32 The applicant provided octave band data including NRO mode for the two proposed turbine  
33 types in Table X-6 of Exhibit X.<sup>404</sup> The identified tables indicate the maximum overall A-  
34 weighted sound power level output is 107.0 dBA for the GE 1.7-103 turbines and 106.0 dBA for  
35 the GE 2.5-120 turbines. The tables provided also identify decreasing maximum sound power  
36 level output under identified NRO modes.  
37

38 In addition, the applicant provided the expected sound power levels by octave band center  
39 frequency for the two different types transformers proposed at the Wheatridge East substation

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<sup>402</sup> ASC, Exhibit X, p. 11.

<sup>403</sup> ASC, Exhibit X, p.10.

<sup>404</sup> ASC, Exhibit X, Table X-6.

1 and the Wheatridge West substation.<sup>405</sup> As depicted in Exhibit X Table X-7, the applicant used a  
2 maximum A-weighted sound power level of 99.5 dBA as the total sound power level expected  
3 from each Wheatridge West transformer and a maximum A-weighted sound power level of  
4 94.7 dBA as the total power level expected from the Wheatridge East transformer.<sup>406</sup>

5  
6 *Noise Modeling Results and Compliance with Regulations*

7  
8 The applicant provided the noise modeling results in Exhibit X and explained that the results  
9 were presented for Wheatridge East and Wheatridge West assuming all turbines would be  
10 operating concurrently. The applicant stated that the facility would be operated with most  
11 turbines at the noise sensitive receptors in NRO mode and identified two distinct NRO  
12 approaches, Approach 1 and Approach 2. Under Approach 1, the applicant would operate a  
13 large number of turbines in minimal NRO modes (i.e. less noise reduction). The modeled sound  
14 level isopleths using Approach 1 are shown on Exhibit X Figure X-1 for the GE 1.7-103 turbine  
15 layout and Figure X-3 for the GE 2.5-120 turbine layout. Under Approach 2, the applicant would  
16 operate a small number of turbines in the maximum NRO mode (i.e. more noise reduction). The  
17 modeled sound level isopleths using Approach 2 are shown on Exhibit X Figure X-2 for the GE  
18 1.7-103 turbine layout and on Figure X-4 for the GE 2.5-120 turbine layout.

19  
20 Results of the noise modeling for the GE 1.7-103 turbine layout is presented in Table NC-2,  
21 *Predicted Sound Levels (GE 1.7-103 Turbine Layout) at Noise Sensitive Receivers within 1-mile of*  
22 *Site Boundary.*<sup>407</sup> Results of the noise modeling for the GE 2.5-120 turbine layout is presented in  
23 Table NC-3, *predicted Sound Levels (GE 2.5-120 Turbine Layout) at Noise Sensitive Receivers*  
24 *within 1-mile of Site Boundary.*<sup>408</sup>

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<sup>405</sup> The applicant stated that there would be two transformers located in the Wheatridge West substation and one transformer located in the Wheatridge East substation.

<sup>406</sup> ASC, Exhibit X, p.12.

<sup>407</sup> Table NC-2 is a condensed version of Table X-8 included in Exhibit X. ASC, Exhibit X, pp. 15-17.

<sup>408</sup> Table NC-3 is a condensed version of Table X-9 included in Exhibit X. ASC, Exhibit X, pp. 18-20.



**Table NC-2: Predicted Sound Levels (GE 1.7-103 Turbine Layout) at Noise Sensitive Receptors within 1-mile of Site Boundary**

| Noise Sensitive Property | Predicted Sound Level <sup>1,2</sup> |                | Noise Sensitive Property | Predicted Sound Level <sup>1,2</sup> |                |
|--------------------------|--------------------------------------|----------------|--------------------------|--------------------------------------|----------------|
|                          | NRO Approach 1                       | NRO Approach 2 |                          | NRO Approach 1                       | NRO Approach 2 |
| 1                        | 31                                   | 33             | 25                       | <b>44</b>                            | <b>47</b>      |
| 2                        | 36                                   | 36             | 26                       | <b>45</b>                            | <b>44</b>      |
| 3                        | 36                                   | 36             | 27                       | 36                                   | 36             |
| 4                        | <b>42</b>                            | <b>40</b>      | 28                       | <b>46</b>                            | <b>46</b>      |
| 5                        | 27                                   | 27             | 29                       | 34                                   | 36             |
| 6                        | <b>42</b>                            | <b>44</b>      | 30                       | 29                                   | 28             |
| 7                        | <b>44</b>                            | <b>47</b>      | 31                       | <b>45</b>                            | <b>45</b>      |
| 8                        | <b>43</b>                            | <b>45</b>      | 32                       | <b>45</b>                            | <b>45</b>      |
| 9                        | <b>43</b>                            | <b>44</b>      | 33                       | 36                                   | 36             |
| 10                       | <b>43</b>                            | <b>45</b>      | 34                       | 36                                   | 36             |
| 11                       | <b>43</b>                            | <b>42</b>      | 35                       | 35                                   | 36             |
| 12                       | 34                                   | 34             | 36                       | 33                                   | 33             |
| 13                       | 33                                   | 33             | 37                       | <b>38</b>                            | <b>38</b>      |
| 14                       | 33                                   | 33             | 38                       | 34                                   | 34             |
| 15                       | 36                                   | 36             | 39                       | <b>40</b>                            | <b>40</b>      |
| 16                       | <b>43</b>                            | <b>42</b>      | 40                       | 34                                   | 34             |
| 17                       | 36                                   | 36             | 41                       | 22                                   | 23             |
| 18                       | 27                                   | 28             | 42                       | 4                                    | 4              |
| 19                       | 27                                   | 28             | 43                       | 14                                   | 14             |
| 20                       | 31                                   | 31             | 44                       | <b>38</b>                            | <b>38</b>      |
| 21                       | 34                                   | 34             | 45                       | <b>38</b>                            | <b>38</b>      |
| 22                       | 34                                   | 34             | 46                       | <b>37</b>                            | <b>37</b>      |
| 23                       | 33                                   | 33             | 47                       | 36                                   | 36             |
| 24                       | 32                                   | 33             | 48                       | <b>46</b>                            | <b>46</b>      |

Notes:

1. Values presented in bold and shaded cells represent an exceedance of OAR 345-035-0035 ambient noise degradation standard.
2. The exact exceedance is not yet known because the facility layout has not yet been finalized.

1

**Table NC-3: Predicted Sound Levels (GE 2.5-120 Turbine Layout) at Noise Sensitive Receptors within 1-Mile of Site Boundary**

| Noise Sensitive Property | Predicted Sound Level <sup>1,2</sup> |                | Noise Sensitive Property | Predicted Sound Level <sup>1,2</sup> |                |
|--------------------------|--------------------------------------|----------------|--------------------------|--------------------------------------|----------------|
|                          | NRO Approach 1                       | NRO Approach 2 |                          | NRO Approach 1                       | NRO Approach 2 |
| 1                        | 31                                   | 31             | 25                       | <b>45</b>                            | <b>45</b>      |
| 2                        | 36                                   | 36             | 26                       | <b>43</b>                            | <b>43</b>      |
| 3                        | 36                                   | 36             | 27                       | 36                                   | 36             |
| 4                        | <b>42</b>                            | <b>42</b>      | 28                       | <b>43</b>                            | <b>43</b>      |
| 5                        | 25                                   | 25             | 29                       | 34                                   | 34             |
| 6                        | <b>43</b>                            | <b>43</b>      | 30                       | 27                                   | 37             |
| 7                        | <b>45</b>                            | <b>45</b>      | 31                       | <b>42</b>                            | <b>42</b>      |
| 8                        | <b>44</b>                            | <b>44</b>      | 32                       | <b>42</b>                            | <b>42</b>      |
| 9                        | <b>44</b>                            | <b>44</b>      | 33                       | 36                                   | 36             |
| 10                       | <b>44</b>                            | <b>44</b>      | 34                       | 33                                   | 33             |
| 11                       | <b>43</b>                            | <b>44</b>      | 35                       | 35                                   | 35             |
| 12                       | 34                                   | 34             | 36                       | 31                                   | 31             |
| 13                       | 33                                   | 33             | 37                       | 36                                   | 36             |
| 14                       | 33                                   | 33             | 38                       | 31                                   | 31             |
| 15                       | 36                                   | 36             | 39                       | <b>38</b>                            | <b>38</b>      |
| 16                       | <b>44</b>                            | <b>45</b>      | 40                       | 33                                   | 33             |
| 17                       | 35                                   | 35             | 41                       | 20                                   | 20             |
| 18                       | 28                                   | 27             | 42                       | 2                                    | 2              |
| 19                       | 27                                   | 27             | 43                       | 11                                   | 11             |
| 20                       | 31                                   | 29             | 44                       | 36                                   | 36             |
| 21                       | 32                                   | 32             | 45                       | 36                                   | 36             |
| 22                       | 31                                   | 31             | 46                       | 35                                   | 35             |
| 23                       | 31                                   | 31             | 47                       | 34                                   | 34             |
| 24                       | 32                                   | 32             | 48                       | <b>44</b>                            | <b>44</b>      |

Notes:

- Values presented in bold and shaded cells represent an exceedance of OAR 345-035-0035 ambient noise degradation standard.
- The exact exceedance is not yet known because the facility layout has not yet been finalized.

2

3 Based upon the applicant's noise modeling using the preliminary facility layouts, the GE 1.7-103  
4 turbine layout is predicted to exceed the ambient noise degradation limit at 19 noise sensitive  
5 receptors when operated under either NRO Approach 1 or NRO Approach 2, and the GE 2.5  
6 turbine layout is predicted to exceed the ambient noise degradation limit at 15 noise sensitive  
7 receptors when operated under either NRO Approach 1 or NRO Approach 2. The NRO mode

1 modeling results indicate that the sound levels are not expected to exceed the maximum levels  
2 described in Table NC-1 under the maximum allowable noise test at any of the identified noise  
3 sensitive receptors. The applicant stated the facility would never be operated in full power  
4 mode, and therefore the applicant did not provide full power mode results.

5  
6 In accordance with OAR 340-035-0035(1)(b)(iii)(III) the noise levels from a wind energy facility  
7 may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not  
8 above the limits specified in Table 8), if the person who owns the noise sensitive property  
9 executes a legally effective easement or real covenant.” Therefore, to demonstrate compliance  
10 with the DEQ noise rules during proposed facility operation, the certificate holder must either  
11 negotiate and execute legally effective easements or real covenants with the affected property  
12 owners authorizing the facility to increase the ambient statistical noise levels more than 10  
13 dBA; or, in the alternative, the certificate holder must change the layout, reduce the number of  
14 turbines, and/or increase the NRO mode at certain turbines to reduce the noise levels to levels  
15 that would not exceed the ambient noise degradation limit. As explained by the applicant,  
16 under either turbine layout and operating in either NRO Approach 1 or NRO Approach 2, the  
17 modeling indicates that ambient noise degradation standard exceedances are expected to be  
18 limited to those properties whose owners have signed a lease with the applicant and have  
19 verbally indicated that they are willing to sign a noise waiver if necessary.<sup>409</sup>

20  
21 To ensure that the final facility layout and turbine and transformer types would comply with  
22 the noise control regulations, the Council adopts the following condition:<sup>410</sup>

23  
24 **Noise Control Condition 2:** Prior to construction, the certificate holder shall provide to  
25 the department:

- 26 a. Information that identifies the final design locations of all facility components to be  
27 built at the facility;  
28 b. The maximum sound power level for the facility components and the maximum  
29 sound power level and octave band data for the turbine type(s) and transformers

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<sup>409</sup> The property owners that have signed leases are referred to in Exhibit X as “participant” properties, while all other properties are referred to as “non-participant” parties. ASC, Exhibit X, p. 13.

<sup>410</sup> On the record of the public hearing, commenters raised issues regarding the proposed facility’s potential noise impacts to their property. W. and L. Seitz raised issues regarding health impacts from sleeplessness, headaches, annoyance and stress from noise associated with habitation in close proximity to wind turbines. The Council has authority to impose requirements to comply with applicable DEQ noise standards, which are designed to protect public health from noise related impacts. To ensure compliance with DEQ’s applicable maximum ambient statistical noise limit and ambient standards, Noise Control Conditions 2 and 3 would prohibit the certificate holder from operating in a manner that would exceed established noise limits unless noise waivers were first obtained by affected property owners allowing an exemption from satisfying the ambient degradation limit. Therefore, based on compliance with DEQ’s noise standards, imposed through Noise Control Conditions 2 and 3, potential adverse health impacts from the facility’s operational noise would be minimized. WRWAPPDoc115 DPO Public Comment\_T. Lindsay 2016-06-06; WRWAPPDoc101 DPO Public Comment J\_A Gould 2016-06-06; WRWAPPDoc86 DPO Public Comment\_W. Seitz 2016-06-03.

- 1 selected for the facility based on manufacturers' warranties or confirmed by other  
2 means acceptable to the department;
- 3 c. The results of the noise analysis of the final facility design performed in a manner  
4 consistent with the requirements of OAR 340-035-0035(1)(b)(B) (iii)(IV) and (VI). The  
5 analysis must demonstrate to the satisfaction of the department that the total noise  
6 generated by the facility (including turbines and transformers) would meet the  
7 ambient noise degradation test and maximum allowable test at the appropriate  
8 measurement point for all potentially-affected noise sensitive properties, or that the  
9 certificate holder has obtained the legally effective easement or real covenant for  
10 expected exceedances of the ambient noise degradation test described (d) below.  
11 The analysis must also identify the noise reduction operation (NRO) mode approach  
12 that will be used during facility operation and include a figure that depicts the  
13 turbines that will be operating in NRO mode and the associated dBA reduction level;  
14 and,
- 15 d. For each noise-sensitive property where the certificate holder relies on a noise  
16 waiver to demonstrate compliance in accordance with OAR 340-035-  
17 0035(1)(b)(B)(iii)(III), a copy of the legally effective easement or real covenant  
18 pursuant to which the owner of the property authorizes the certificate holder's  
19 operation of the facility to increase ambient statistical noise levels L<sub>10</sub> and L<sub>50</sub> by  
20 more than 10 dBA at the appropriate measurement point. The legally effective  
21 easement or real covenant must: include a legal description of the burdened  
22 property (the noise sensitive property); be recorded in the real property records of  
23 the county; expressly benefit the property on which the wind energy facility is  
24 located; expressly run with the land and bind all future owners, lessees or holders of  
25 any interest in the burdened property; and not be subject to revocation without the  
26 certificate holder's written approval.

27

28 The noise modeling results provided by the applicant included implementation of NRO  
29 Approach 1 or NRO Approach 2 and the applicant expressly stated in Exhibit X that it would not  
30 operate the facility in full power mode.<sup>411</sup> The applicant stated in its response to a request for  
31 additional information that they would "never operate in maximum sound power operational  
32 mode."<sup>412</sup> Because the applicant did not provide noise modeling analysis at the maximum  
33 sound power level established by IEC 61400-11 for all wind facility turbines operating without  
34 NRO restrictions, compliance with OAR 340-035-0035(1)(b)(B) requires that for purposes of this  
35 facility the maximum sound power level must be construed to be the maximum NRO level  
36 modeled by the applicant and, therefore, the maximum NRO level at which the facility may  
37 operate. Accordingly, to ensure that the facility is not operated above the maximum NRO level  
38 and to ensure that the NRO mode approach employed during operation results in compliance  
39 with the applicable noise rules, the Council adopts the following condition:  
40

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<sup>411</sup> ASC, Exhibit X, p. 13.

<sup>412</sup> WRWAPPDoc55, Exhibit X RAI Responses, 04-15-15.

1           **Noise Control Condition 3:** During operation of the facility, the certificate holder shall  
2           only operate the facility in the NRO mode that is identified prior to construction  
3           pursuant to Noise Control Condition 2. After beginning operation of the facility, the  
4           certificate holder shall include a certification in its annual Compliance Report that the  
5           NRO mode turbines identified in the preconstruction analysis required by Noise Control  
6           Condition 2 are operating at or below the identified dBA reduction level.  
7

8           *Noise Control Regulations—Noise Complaints and Monitoring Program*  
9

10          Pursuant to the DEQ noise standards under OAR 340- 035-0035(4)(a), the Council has authority  
11          to require the owner of an operating noise source to monitor and record the statistical noise  
12          levels upon written notification. In the event of a complaint regarding noise levels during  
13          proposed facility operation, the Council has the authority to act in the place of DEQ to enforce  
14          this provision to verify that the certificate holder is operating the facility in compliance with the  
15          noise control regulations.<sup>413</sup> Therefore, the Council adopts the following conditions:  
16

17           **Noise Control Condition 4:** During operation, the certificate holder shall maintain a  
18           complaint response system to address noise complaints. The certificate holder shall  
19           notify the department within two working days of receiving a noise complaint related to  
20           the facility. The notification should include, but is not limited to, the date the certificate  
21           holder received the complaint, the nature of the complaint, the complainant’s contact  
22           information, the location of the affected property, and any actions taken, or planned to  
23           be taken, by the certificate holder to address the complaint.  
24

25          **Noise Control Condition 5:** During operation, in response to a complaint from the owner of a  
26          noise sensitive property regarding noise levels from the facility, the Council may require the  
27          certificate holder to monitor and record the statistical noise levels to verify that the certificate  
28          holder is operating in compliance with the noise control regulations. The monitoring plan must  
29          be reviewed and approved by the department prior to implementation. The cost of such  
30          monitoring, if required, shall be borne by the certificate holder.  
31

32          **Conclusions of Law**  
33

34          Based on the foregoing findings, and subject to compliance with the site certificate conditions,  
35          the Council finds that the facility would comply with the Noise Control Regulations in OAR 340-  
36          035-0035(1)(b)(B).  
37

---

<sup>413</sup> On the record of the June 6, 2016 public hearing, Ms. Gilbert/FGRV and T. Lindsay commented that the state does not require developers to monitor facility-related noise. Ms. Gilbert/FGRV further requested the Council require the applicant to monitor operational noise and impose a requirement for the applicant to establish a process for receiving and responding to noise complaints. The department noted and Council concurs that Noise Control Conditions 4 and 5 include the requested noise complaint and monitoring program. WRWAPPDoc100 DPO Public Comment\_I. Gilbert 2016-06-06; WRWAPPDoc115 DPO Public Comment\_T. Lindsay 2016-06-06.

1 **IV.S. Removal-Fill Law**

2

3 The Oregon Removal-Fill Law (ORS 196.795 through 196.990) and Department of State Lands  
4 (DSL) regulations (OAR 141-085- 0500 through 141-085-0785) require a removal-fill permit if 50  
5 cubic yards or more of material is removed, filled, or altered within any “waters of the state.”<sup>414</sup>  
6 The Council, in consultation with DSL, must determine whether a removal-fill permit is needed  
7 and if so, whether a removal-fill permit should be issued. The analysis area for wetlands and  
8 other waters of the state is the area within the site boundary.

9

10 **Findings of Fact**

11

12 The applicant stated that a removal-fill permit is not needed for the facility because the facility  
13 would not temporarily or permanently impact waters of the state. The applicant provided  
14 information regarding wetlands and other waters of the state in Exhibit J of the ASC, including a  
15 wetland delineation report included as attachment J-3.

16

17 The applicant conducted wetland delineation studies in September and October, 2013. The  
18 results of these studies are presented in Exhibit J, and summarized in Table J-1.<sup>415</sup> The applicant  
19 completed a wetland delineation report and submitted with the report with the ASC, included as  
20 attachment J-3 to Exhibit J. As shown on Table J-1, the wetland delineation study determined  
21 that there are four types of wetlands and other water features in the analysis area: palustrine  
22 emergent wetlands, ephemeral streams, intermittent streams, and perennial streams. Of these  
23 features, ephemeral streams were found to be the most common.

24

25 The applicant stated in Exhibit J that the facility would not impact waters of the state. The  
26 applicant proposed two potential alternative facility layout designs (the layout options are  
27 described in Exhibits B and C), and the applicant’s designs and analysis show that no waters of  
28 the state would be impacted by either turbine layout option.<sup>416</sup>

29

30 The applicant stated that, depending on the ultimate facility layout and design, the facility may  
31 impact ephemeral streams. However, as described by the applicant and confirmed by DSL,  
32 ephemeral streams are not defined as waters of the state and are not subject to current state  
33 removal-fill requirements.<sup>417</sup>

34

35 DSL reviewed the wetland delineation report and provided a concurrence letter in July 2015, in  
36 which DSL agreed with the wetland delineation and classifications.<sup>418</sup> As the applicant  
37 demonstrated in Exhibit J and associated wetland delineation report, the facility would not  
38 impact waters of the state; therefore, a removal-fill permit is not required.

---

<sup>414</sup> ORS 196.800(15) defines “Waters of this state.” The term includes wetlands and certain other waterbodies.

<sup>415</sup> ASC, Exhibit J, p. 5.

<sup>416</sup> ASC, Exhibit J, p. 6.

<sup>417</sup> ASC, Exhibit J, pp. 6 and 10. See also OAR 141-085-0510, and WRWAPPDoc003, DSL Concurrence, 07-01-2015, in which DSL agreed that ephemeral streams are exempt and not subject to current state removal-fill requirements.

<sup>418</sup> WRWAPPDoc003, DSL Concurrence, 07-01-2015.

1 **Conclusions of Law**

2

3 Based on the foregoing findings of fact and conclusions, the Council finds that a removal-fill  
4 permit is not needed for the facility.

5

6 **IV.T. Water Rights**

7

8 Under ORS Chapters 537 and 540 and OAR Chapter 690, the OWRD administers appropriation  
9 water rights and regulates the use of the water resources of the state. Under OAR 345-022-  
10 0000(1)(b), the Council must determine whether the proposed facility would comply with "...all  
11 other Oregon statutes and administrative rules identified in the project order..." The project  
12 order identifies these statutes and administrative rules governing use of water resources and  
13 water rights as applicable to the proposed facility.

14

15 **Findings of Fact**

16

17 The applicant has addressed these statutory and rule requirements in Exhibit O of the ASC. The  
18 applicant did not request a groundwater permit, a surface water permit, a water rights transfer,  
19 or any other specific water use license.

20

21 As explained in Exhibit O, during construction of the facility water would be used for dust  
22 control, road construction, and concrete mixing, as well as other incidental uses. The applicant  
23 estimated that approximately 56.6 million gallons of water would be necessary for facility  
24 construction, or 3.14 million gallons on average per month during the expected 18 months of  
25 construction. The applicant stated that if the facility was constructed during a particularly dry  
26 year with high temperatures, additional water would be used for dust control. Under a "worst  
27 case" estimate, the applicant could require 78 million gallons during construction, or  
28 approximately 4.3 million gallons per month.<sup>419</sup>

29

30 The applicant stated in Exhibit O that all water for construction activities would be procured  
31 from municipal sources near the site boundary, including Hermiston Public Works, Stanfield  
32 Public Works, Boardman Public Works, and the Port of Morrow. The applicant also provided  
33 evidence of correspondence with those four municipal water suppliers, confirming that the  
34 suppliers expect to be able to provide the requested quantity of water. The Port of Morrow  
35 alone stated that it expects to be able to provide up to 6.5 million gallons per month, more than  
36 the applicant expects to need during the worst-case scenario.<sup>420</sup>

37

38 During operation of the facility, the applicant anticipates that it would source required water  
39 from one new well drilled onsite at each of two O&M buildings, and that each well would use  
40 less than 5,000 gallons per day. Wells that use less than 5,000 gallons of water per day for a

---

<sup>419</sup> ASC, Exhibit O, pp. 2-4.

<sup>420</sup> ASC, Exhibit O, Table O-1, p. 5, and Attachments O-1 to O-4.

1 single industrial or commercial purpose are exempt from registration, permits, or ground water  
2 right certificates.<sup>421</sup> The applicant calculated each of the two proposed new wells as a single  
3 industrial purpose. The provisions of ORS 537.545 do require that the owner of the land on  
4 which an exempt well is drilled provide to the OWRD a map showing the exact location of the  
5 well, as well as pay a recording fee to OWRD. Additionally, ORS 537.765 requires that when a  
6 new exempt well is drilled, or an existing well is altered, converted, or abandoned, a well log  
7 containing specific information as described in ORS 537.765 must be filed with the Water  
8 Resources Commission. These OWRD requirements are not permits or other approvals included  
9 in or governed by the site certificate; the applicant must independently comply with the  
10 provisions of ORS 537.454 and ORS 537.765 outside of the site certificate process.

11  
12 The OWRD did not comment on the application.<sup>422</sup> However, based on the applicant's analysis  
13 and calculations, the Council concurs that the applicant has established that it can provide  
14 adequate water for construction and operation of the facility, in compliance with the Oregon  
15 Groundwater Act.

16  
17 **Conclusions of Law**

18  
19 Based on the foregoing findings of fact, the Council concludes that the facility would comply  
20 with the Oregon Ground Water Act of 1955 (ORS Chapters 537 and ORS Chapters 540 as  
21 implemented through OAR Chapter 690.)

22  
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33

---

<sup>421</sup> ORS 537.545(1)(f).

<sup>422</sup> WRWNOIDoc020 Agency Comment OWRD 2013-03-27. OWRD commented on the Notice of Intent, explaining that if municipal supplies are not available to provide needed construction purposes, a temporary authority under a limited license would be required from OWRD. (). The comment letter also noted that existing rights for agriculture water are not eligible to be used for construction purposes. The applicant would acquire water for construction purposes from the municipal sources noted above, and has demonstrated in Exhibit O that the municipal sources expect to have adequate supply to meet facility construction needs. The applicant did not propose to use water currently associated with irrigation rights (see ASC, Exhibit O, p. 5).



1 **V. CONCLUSIONS AND ORDER OF THE COUNCIL**

2  
3 The applicant submitted an application to construct a wind energy facility in Morrow and  
4 Umatilla counties. Subject to compliance with the conditions, the Council finds that the  
5 preponderance of evidence on the record supports the following conclusions:  
6

- 7 1. The Wheatridge Wind Energy Facility complies with the requirements of the Oregon  
8 Energy Facility Siting Statutes, ORS 469.300 to 469.520.  
9  
10 2. The Wheatridge Wind Energy Facility complies with the standards adopted by the  
11 Council pursuant to ORS 469.501.  
12  
13 3. The Wheatridge Wind Energy Facility complies with the statewide planning goals  
14 adopted by the Land Conservation and Development Commission.  
15  
16 4. The Wheatridge Wind Energy Facility complies with all other Oregon statutes and  
17 administrative rules identified in the project order as applicable to the issuance of a  
18 site certificate for the proposed facility.  
19

20 Based on the findings of fact, reasoning, conclusions of law in this order, the Council concludes  
21 that the applicant has satisfied the requirements for issuance of a site certificate for the facility,  
22 subject to the conditions set forth in this order.  
23

Issued this 28th day of April, 2017

The OREGON DEPARTMENT OF ENERGY

By: 

Barry Beyeler, Chair  
Oregon Energy Facility Siting Council

24

**Attachment A: Draft Proposed Order Comment Index**

**Attachment A: Draft Proposed Order Comment Index**

| <b>Document ID</b>                      | <b>Date Received</b> | <b>Last Name</b> | <b>First Name</b> | <b>Organization</b>                    | <b>Consideration in Proposed Order</b>   |
|---|----------------------|------------------|-------------------|--|--|
| WRWAPPDoc111 WRWAPPDoc79                | 6/6/2016             | Akers            | Raymond           |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc94                             | 6/6/2016             | Alldritt         | David             |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc112                            | 6/6/2016             | Buermann         | Shane             |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc102                            | 6/6/2016             | Burns            | Jodie             |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc84                             | 6/1/2016             | Cherry           | Steve             | Oregon Department of Fish and Wildlife | Section IV.H. Fish and Wildlife Habitat; Section IV.I. Threatened and Endangered Species   |
| WRWAPPDoc108                            | 6/6/2016             | Cobb             | Larry             |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc90                             | 6/6/2016             | Cooper           | Cain              |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc76                             | 5/19/2016            | Cutsforth        | Mark              |  | General comment on transmission line location not addressed in the proposed order  |
| WRWAPPDoc75 WRWAPPDoc 109               | 5/19/16; 6/6/16      | Duvall           | Lois              |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc89                             | 6/6/2016             | Echenrode        | Robert            | Umatilla Electric Co-op                | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc68 WRWAPPDoc73<br>WRWAPPDoc100 | 5/19/16; 6/6/16      | Gilbert          | Irene             |  | IV.C. Council Review Process; III.A. Location and Site Boundary; III.B. The Facility; IV.A. General Standard of Review; IV.B. Organizational Expertise; IV.C. Structural Standard; IV.D. Soil Protection; IV.F. Protected Areas; IV.H Fish and Wildlife Habitat; IV.P. Cumulative Effects Standard for Wind Energy Facilities; IV.Q Siting Standards for Transmission Lines; IV.R. Noise Control Regulations |
| WRWAPPDoc101                            | 6/6/2016             | Gould            | John              |  | IV.E. Land Use; IV.R. Noise Control Regulations  |
| WRWAPPDoc101                            | 6/6/2016             | Gould            | Ashli             |  | IV.E. Land Use; IV.R. Noise Control Regulations  |
| WRWAPPDoc70 WRWAPPDoc103                | 5/19/16; 6/6/16      | Gritz            | Jeffrey           |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc78                             | 5/19/2016            | Halstead         | Pete              |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc95                             | 6/6/2016             | Hanson           | Daniel            |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc72                             | 5/19/2016            | Harrison         | Glenn             |  | IV.F. Protected Areas; IV.L. Recreation  |
| WRWAPPDoc71                             | 6/6/2016             | Heideman         | Dana              |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc110                            | 6/6/2016             | Heideman         | Loren             |  | General support for the proposed facility is not addressed in the proposed order   |

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|-------------------------|----------------------|------------------|-------------------|--|--|
| WRWAPPDoc113            | 6/6/2016             | Hill             | Tana              |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc113            | 6/6/2016             | Hill             | Stephen L.        |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc96             | 6/6/2016             | Horning          | Don               |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc104            | 6/6/2016             | Ingram           | Jack              |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc114            | 6/6/2016             | Light            | Tommy Jr.         |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc115            | 6/6/2016             | Lindsay          | Todd              |  | II.C. Council Review Process; III.A. Location and Site Boundary; III.B. The Facility; IV.A. General Standard of Review; IV.B. Organizational Expertise; IV.D. Soil Protection; IV.E. Land Use; IV.F. Protected Areas; IV.P. Cumulative Effects Standard for Wind Energy Facilities; IV.Q. Siting Standards for Transmission Lines; IV.R. Noise Control Regulations |
| WRWAPPDoc91             | 6/6/2016             | Little           | Chuck             |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc118            | 6/6/2016             | Mabbott          | Tamra             | Umatilla Board of County Commissioners | IV.E. Land Use   |
| WRWAPPDoc105            | 6/6/2016             | Martinez         | Jacob             |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc116            | 6/6/2016             | McKenzie         | Tammy             |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc117            | 6/6/2016             | McLane           | Carla             | Morrow County Court                    | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc77             | 5/23/2016            | Meenaghan        | Kevin             | NAS Whidbey Island USA (Bombing Range) | IV.F. Protected Areas  |
| WRWAPPDoc92             | 6/6/2016             | Miller           | Corey             |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc85             | 6/6/2016             | Petersen         | David             | Tonkon Torp LLP                        | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc107            | 6/6/2016             | Rauch            | Kathy             |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc74             | 5/19/2016            | Reid             | Jason             |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc97             | 6/6/2016             | Richards         | David             |  | IV.E. Land Use; IV.Q. Siting Standards for Transmission Lines  |
| WRWAPPDoc106            | 6/6/2016             | Schaltz          | John              |  | General support for the proposed facility is not addressed in the proposed order   |
| WRWAPPDoc67 WRWAPPDoc86 | 5/18/16; 6/3/16      | Seitz            | Wayne             |  | II.C. Council Review Process; IV.E. Land Use; IV.R. Noise Control Regulations  |

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|------------------------------|----------------------|------------------|-------------------|-------------------------------------|--|
| WRWAPPDoc98                  | 6/6/2016             | Taylor           | Donald            |                                     | General support for the proposed facility is not addressed in the proposed order |
| WRWAPPDoc99                  | 6/6/2016             | Williamson       | Gene              |                                     | General support for the proposed facility is not addressed in the proposed order |
| WRWAPPDoc87 WRWAPPDoc88 WRWA | 6/6/2016             | Wolff            | Thomas            | Columbia Basin Electric Cooperative | General support for the proposed facility is not addressed in the proposed order |

**Attachment B: 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 4<sup>th</sup> 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.

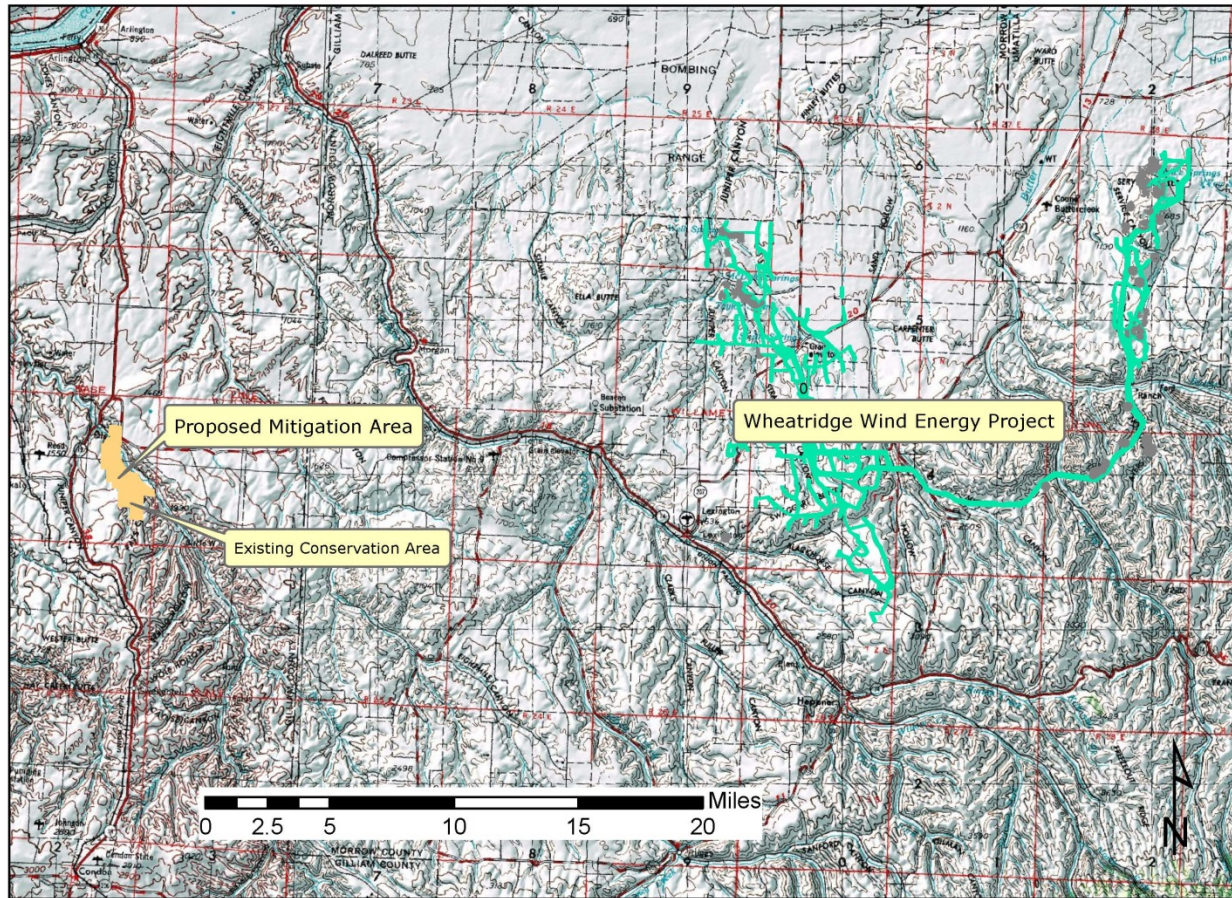


Figure 1. Overview Map: Habitat Mitigation Area for the Wheatridge Wind Energy Project.

**Attachment C: 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 D: Draft Wildlife Monitoring and Mitigation Plan**

**Wheatridge Wind Energy Project**

**Proposed Concepts for  
Wildlife Monitoring and Mitigation Plan**

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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:

| <b>Season</b>    | <b>Dates</b>            |
|------------------|-------------------------|
| 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:

| <b>Season</b>    | <b>Frequency</b>                  |
|------------------|-----------------------------------|
| 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.<sup>1</sup> The certificate holder shall pay costs, if any, charged for time and expenses related

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<sup>1</sup> 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.<sup>2</sup>
- (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

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ODOE approval before using other specialists.

<sup>2</sup> 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 5<sup>th</sup> and upper 95<sup>th</sup> percentiles of the 5000 bootstrap estimates are estimates of the lower limit and upper limit of 90% confidence intervals.

### **Nocturnal Migrant and Bat Fatalities**

Differences in observed nocturnal migrant and bat fatality rates for lit turbines, unlit turbines that are adjacent to lit turbines and unlit turbines that are not adjacent to lit turbines will be compared graphically and statistically.

#### **(g) Mitigation**

The certificate holder shall use 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.”<sup>3</sup> For the purpose of determining whether a threshold has been exceeded, the certificate holder shall calculate the average annual fatality rates for species groups after each year of monitoring. Based on current knowledge of the species that are likely to use the habitat in the area of the facility, the following thresholds apply to the WWEF:

| <b>Species Group</b>  | <b>Threshold of Concern</b><br>(fatalities per MW) |
|---|--|
| Raptors<br>(All eagles, hawks, falcons and owls, including burrowing owls.)   | 0.09   |
| Raptor species of special concern<br>(Swainson’s hawk, ferruginous hawk, peregrine falcon, golden eagle, bald eagle, burrowing owl.)  | 0.06   |
| Grassland species<br>(All native bird species that rely on grassland habitat and are either resident species occurring year round or species that nest in the area, excluding horned lark, burrowing owl and northern harrier.) | 0.59   |
| State sensitive avian species listed under OAR 635-100-0040<br>(Excluding raptors listed above.)  | 0.2  |
| Bat species as a group  | 2.5  |

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

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<sup>3</sup> 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.<sup>4</sup> 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

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<sup>4</sup> As used in this plan, “life of the facility” means continuously until the facility site is restored and the site certificate is terminated in accordance with OAR 345-027-0110.

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 E: Site Certificate**

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

**Site Certificate for the  
Wheatridge Wind Energy Facility**

**ISSUE DATE  
APRIL 2017**



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# Table of Contents

|            |  |           |
|------------|--|-----------|
| <b>1.0</b> | <b>Introduction and Site Certification</b>                           | <b>1</b>  |
| <b>2.0</b> | <b>Facility Location</b>   | <b>3</b>  |
| <b>2.1</b> | <b>Site Boundary</b>   | <b>3</b>  |
| <b>2.2</b> | <b>Micrositing Corridor</b>  | <b>4</b>  |
| <b>2.3</b> | <b>Intraconnection Transmission Line Corridor</b>                    | <b>4</b>  |
| <b>3.0</b> | <b>Facility Description</b>  | <b>5</b>  |
| <b>3.1</b> | <b>Energy Facility</b>   | <b>5</b>  |
| <b>3.2</b> | <b>Related or Supporting Facilities</b>                              | <b>5</b>  |
| <b>4.0</b> | <b>Site Certificate Conditions</b>                                   | <b>10</b> |
| <b>4.1</b> | <b>Condition Format</b>  | <b>10</b> |
| <b>4.2</b> | <b>General Conditions (GEN): Design, Construction and Operations</b> | <b>11</b> |
| <b>4.3</b> | <b>Pre-Construction (PRE) Conditions</b>                             | <b>18</b> |
| <b>4.4</b> | <b>Construction (CON) Conditions</b>                                 | <b>31</b> |
| <b>4.5</b> | <b>Pre-Operational (PRO) Conditions</b>                              | <b>37</b> |
| <b>4.6</b> | <b>Operational (OPR) Conditions</b>                                  | <b>39</b> |
| <b>4.7</b> | <b>Retirement Conditions (RET)</b>                                   | <b>44</b> |
| <b>5.0</b> | <b>Successors and Assigns</b>  | <b>45</b> |
| <b>6.0</b> | <b>Severability and Construction</b>                                 | <b>45</b> |
| <b>7.0</b> | <b>Execution</b>   | <b>46</b> |

# 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 Swaggart Wind Power, LLC (parent company of certificate holder). 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)).

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

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 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. The findings of fact, reasoning, and conclusions of law underlying the terms and conditions of this site certificate are set forth in the Council's Final Order in the Matter of the Application for a Site Certificate (ASC) for the Wheatridge Wind Energy Facility (Final Order on ASC) issued on April 28, 2017, incorporated herein by this reference. In interpreting this site certificate, any ambiguity is to be clarified by reference to the following, in order of priority: (1) this Site Certificate, (2) the Final Order on the ASC and (3) the record of the proceedings that led to the Final Order on the ASC.

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)  |
|---------------------------------|-------|---|
| <b>Wheatridge East</b>          |       |   |
| 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   |
| <b>Wheatridge West</b>          |       |   |
| 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   |
| <b>Intraconnection Corridor</b> |       |   |
| 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 “micrositing 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 micrositing 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**

| <b>Specification</b>                          | <b>Maximum</b> |
|---|----------------|
| 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:

- 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)



### 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 micrositing 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
  - 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
  - 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.

## 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.)<sup>1</sup>. 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                                 |

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.

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<sup>1</sup> 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   |
|---|--|
| <b>STANDARD: GENERAL STANDARD OF REVIEW (GS) [OAR 345-022-0000]</b> |  |
| GEN-GS-01   | <p>The certificate holder shall begin construction of the facility 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.</p> <p>[Final Order on ASC, General Standard Condition 1]</p>  |
| GEN-GS-02   | <p>The certificate holder shall complete construction of the facility within six years after the effective date of the site certificate.</p> <p>[Final Order on ASC, General Standard Condition 2]</p>   |
| GEN-GS-03   | <p>The certificate holder shall design, construct, operate, and retire the facility:</p> <ol style="list-style-type: none"> <li>a. Substantially as described in the site certificate;</li> <li>b. In compliance with the requirements of ORS Chapter 469, applicable Council rules, and applicable state and local laws, rules and ordinances in effect at the time the site certificate is issued; and</li> <li>c. In compliance with all applicable permit requirements of other state agencies.</li> </ol> <p>[Final Order on ASC, Mandatory Condition 2] [OAR 345-027-0020(3)]</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 the certificate holder would construct and operate part of the facility on that part of the site even if a change in the planned route of a transmission line or pipeline occurs during the certificate holder’s negotiations to acquire construction rights on another part of the site.</p> <p>[Final Order on ASC, Mandatory Condition 3] [OAR 345-027-0020(5)]</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] [OAR 345-027-0020(6)]</p>   |
| 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] [OAR 345-027-0020(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 345-027-0020(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, landslide, liquefaction, lateral spreading, tsunami inundation, fault displacement and subsidence.</p> <p>[Final Order on ASC, Mandatory Condition 7] [OAR 345-027-0020(12)]</p>  |
| GEN-GS-09   | <p>The certificate holder shall notify the department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if site investigations or trenching reveal that conditions in the foundation rocks differ significantly from those described in the application for a site certificate. After the Department receives the notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division and to propose mitigation actions.</p> <p>[Final Order on ASC, Mandatory Condition 8] [OAR 345-027-0020(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.</p> <p>[Final Order on ASC, Mandatory Condition 9] [OAR 345-027-0020(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 345-027-0020(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> <p>[Final Order on ASC, Site Specific Condition 1] [OAR 345-027-0023(5)]</p> |
| <b>STANDARD: ORGANIZATIONAL EXPERTISE (OE) [OAR 345-022-0010]</b> |   |
| GEN-OE-01   | <p>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.</p> <p>[Final Order on ASC, Organizational Expertise Condition 5]</p>  |

|           |   |
|-----------|---|
| GEN-OE-02 | <p>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.</p> <p>[Final Order on ASC, Organizational Expertise Condition 6]</p> |
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**STANDARD: STRUCTURAL (SS) [OAR 345-022-0020]**

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|-----------|--|
| GEN-SS-01 | <p>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.</p> <p>[Final Order on ASC, Structural Standard Condition 2]</p> |
|-----------|--|

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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"><li>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.</li><li>b. Wind turbines shall be setback 100 feet from all property boundaries, including participant property boundaries within the site boundary, if practicable.</li><li>c. Wind turbine foundations shall not be located on any property boundary, including participant property boundaries within the site boundary.</li></ul> <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"><li>a. Obtain an access permit for changes in access on Morrow County roads; and</li><li>b. Improve or develop private access roads impacting intersections with Morrow County roads in compliance with Morrow County access standards.</li></ul> <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"><li>a. Paint the towers in alternating bands of white and red or aviation orange; and</li><li>b. Install aviation lighting as recommended by the Federal Aviation Administration.</li></ul> <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&amp;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&amp;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>  |

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| 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&amp;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>   |
| <b>STANDARD: RETIREMENT AND FINANCIAL ASSURANCE (RT) [OAR 345-022-0050]</b> |  |
| GEN-RT-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]<br/>[Mandatory Condition OAR 345-027-0020(7)]</p>  |
| <b>STANDARD: FISH AND WILDLIFE HABITAT (FW) [OAR 345-022-0060]</b>          |  |
| 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>   |
| <b>STANDARD: SCENIC RESOURCES (SR) [OAR 345-022-0080]</b>                   |  |
| 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"> <li>a. Outdoor night lighting at the collector substations and Operations and Maintenance Buildings must be <ol style="list-style-type: none"> <li>i. The minimum number and intensity required for safety and security;</li> <li>ii. Directed downward and inward within the facility to minimize backscatter and offsite light trespass; and</li> <li>iii. Have motion sensors and switches to keep lights turned off when not needed.</li> </ol> </li> </ol> <p>[Final Order on ASC, Scenic Resources Condition 1]</p> |

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| GEN-SR-02  | <p>The certificate holder shall:</p> <ol style="list-style-type: none"> <li>a. Design and construct the O&amp;M buildings 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;</li> <li>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.</li> <li>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;</li> <li>d. Finish substation structures utilizing neutral colors to blend with the surrounding landscape;</li> <li>e. Minimize use of lighting and design lighting to prevent offsite glare;</li> <li>f. Not display advertising or commercial signage on any part of the proposed facility;</li> <li>g. Limit vegetation clearing and ground disturbance to the minimum area necessary to safely and efficiently install the facility equipment;</li> <li>h. Water access roads and other areas of ground disturbance during construction, as needed, to avoid the generation of airborne dust; and</li> <li>i. Restore and revegetate temporary impact areas as soon as practicable following completion of construction.</li> </ol> <p>[Final Order on ASC, Scenic Resources Condition 2]</p> |
| <b>STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0110]</b> |   |
| 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&amp;M buildings shall be fenced. The certificate holder shall keep tower access doors and O&amp;M buildings locked at all times, except when authorized personnel are present.</p> <p>[Final Order on ASC, Public Services Condition 11]</p>   |

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| 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> |
| <b>STANDARD: PUBLIC HEALTH AND SAFETY FOR WIND FACILITIES (WF) [OAR 345-024-0010]</b> |  |
| 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   |
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| <b>STANDARD: ORGANIZATIONAL EXPERTISE (OE) [OAR 345-022-0010]</b> |   |
| 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]**

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| PRE-SS-01 | <p>Before beginning construction, the certificate holder must 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"><li>• Subsurface soil and geologic conditions of the site boundary</li><li>• Define and delineate geological and geotechnical hazards, and means to mitigate these hazards</li><li>• Geotechnical design criteria and data for the turbine foundations, foundations of substations, O&amp;M buildings, roads, and other related and supporting facilities</li><li>• Design data for installation of underground and overhead collector lines, and overhead transmission lines</li><li>• 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</li><li>• Investigations of the swell and collapse potential of loess soils within the site boundary.</li></ul> <p>[Final Order on ASC, Structural Standard Condition 1]</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]**

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| 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 facility construction. The SPCC plan shall include the measures described in Exhibit I of ASC and in the final order approving the site certificate.</p> <p>[Final Order on ASC, Soil Protection Condition 3]</p> |
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| 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 Condition 11.</p> <p>[Final Order on ASC, Soil Protection Condition 4]</p>   |
| PRE-SP-03   | <p>Prior to beginning construction of the O&amp;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&amp;M buildings.</p> <p>[Final Order on ASC, Soil Protection Condition 7]</p>   |
| <b>STANDARD: LAND USE (LU) [OAR 345-022-0030]</b> |  |
| PRE-LU-01   | <p>Before beginning construction, the certificate holder shall complete the following:</p> <ol style="list-style-type: none"> <li>a. Pay the requisite fee and obtain a Zoning Permit from Morrow County for all facility components sited in Morrow County; and</li> <li>b. Obtain all other necessary local permits, including building permits.</li> </ol> <p>[Final Order on ASC, Land Use Condition 3]</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>                                 |

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| 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&amp;M building, and the intraconnection line.<br/>[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.<br/>[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.<br/>[Final Order on ASC, Land Use Condition 21]</p>   |
| <b>STANDARD: RETIREMENT AND FINANCIAL ASSURANCE (RT) [OAR 345-022-0050]</b> |   |
| PRE-RT-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.<br/>[Final Order on ASC, Retirement and Financial Assurance Condition 4]<br/>[Mandatory Condition OAR 345-027-0020(8)]</p> |



PRE-RT-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 \$18.1 million dollars (Q1 2015 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 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 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 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]

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

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| 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 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"><li>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.</li><li>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.</li></ol> <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>   |

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| <p>PRE-FW-04</p> | <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"> <li>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.</li> <li>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 Condition 1.</li> <li>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.</li> <li>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"> <li>i. Restoration and revegetation of temporary construction-related impact area shall be conducted as soon as possible following construction.</li> <li>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.</li> </ol> </li> <li>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.</li> <li>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.</li> <li>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.</li> </ol> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 10]</p> |
| <p>PRE-FW-05</p> | <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]**

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| 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 Condition 3, 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"><li>i. Conduct preconstruction plant surveys for Laurent’s milkvetch. 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.</li><li>ii. Ensure that any plant protection zone established under (a) above is included on construction plans showing the final design locations.</li><li>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.</li></ol> <p>[Final Order on ASC, Threatened and Endangered Species Condition 3]</p>  |

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

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| 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]**

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| 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> <ul style="list-style-type: none"><li>a. 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;</li><li>b. A policy of including traffic control procedures in contract specifications for construction of the facility;</li><li>c. 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;</li><li>d. 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;</li><li>e. A policy to encourage and promote carpooling for the construction workforce; and</li><li>f. Procedures to keep state highways and county roads free of gravel that may be tracked out on intersecting roads at facility access points.</li></ul> <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> |

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| <p>PRE-PS-05</p> | <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"> <li>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.</li> <li>b. Identification of agencies that participated in developing the plan;</li> <li>c. Identification of agencies that are designated as first response agencies or are included in any mutual aid agreements with the facility;</li> <li>d. A list of any other mutual aid agreements or fire protection associations in the vicinity of the facility;</li> <li>e. Contact information for each agency listed above;</li> <li>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;</li> <li>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;</li> <li>h. The designated meeting location in case of evacuation;</li> <li>i. Staff training requirements; and</li> </ol> <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> |
| <p>PRE-PS-06</p> | <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>  |

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| 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>  |
| <b>STANDARD: WASTE MINIMIZATION (WM,) [OAR 345-022-0120]</b>                     |  |
| 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"> <li>a. Specification of the number and types of waste containers to be maintained at construction sites and construction yards</li> <li>b. Description of waste segregation methods for recycling or disposal.</li> <li>c. Names and locations of appropriate recycling and waste disposal facilities, collection requirements, and hauling requirements to be used during construction.</li> </ol> <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> |
| <b>STANDARD: SITING STANDARDS FOR TRANSMISSION LINES (TL) [OAR 345-024-0090]</b> |  |
| 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   |
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| <b>STANDARD: SOIL PROTECTION (SP) [OAR 345-022-0022]</b>           |   |
| 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>   |
| <b>STANDARD: LAND USE (LU) [OAR 345-022-0030]</b>                  |   |
| CON-LU-01  | <p>During construction, the certificate holder shall comply with the following requirements:</p> <ol style="list-style-type: none"> <li>Construction vehicles shall use previously disturbed areas including existing roadways and tracks.</li> <li>Temporary construction yards and laydown areas shall be located within the future footprint of permanent structures to the extent practicable.</li> <li>New, permanent roadways will be the minimum width allowed while still being consistent with safe use and satisfying county road and safety standards.</li> <li>Underground communication and electrical lines will be buried within the area disturbed by temporary road widening to the extent practicable.</li> </ol> <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>   |
| <b>STANDARD: FISH AND WILDLIFE HABITAT (FW) [OAR 345-022-0060]</b> |   |
| 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>   |

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| 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>   |
| <b>STANDARD: HISTORIC, CULTURAL, AND ARCHAEOLOGICAL RESOURCES (HC) [OAR 345-022-0090]</b> |  |
| 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> |

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| 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>   |
| <b>STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0110]</b> |   |
| 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"> <li>a. Recycling steel and other metal scrap.</li> <li>b. Recycling wood waste.</li> <li>c. Recycling packaging wastes such as paper and cardboard.</li> <li>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.</li> <li>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.</li> <li>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.</li> </ol> <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>  |

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| 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.<br>[Final Order on ASC, Public Services Condition 17] |
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**STANDARD: WASTE MINIMIZATION (WM) [OAR 345-022-0120]**

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| 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"> <li>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,</li> <li>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.</li> </ul> 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).<br>[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]**

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| 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.<br>[Final Order on ASC, Public Health and Safety Standards for Wind Facilities Condition 1]   |
| 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.<br>[Final Order on ASC, Public Health and Safety Standards for Wind Facilities Condition 4] |

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

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| 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"><li>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.</li><li>b. Constructing all aboveground 34.5-kV transmission lines with a minimum clearance of 25 feet from the ground.</li><li>c. Constructing all aboveground 230-kV transmission lines with a minimum clearance of 30 feet from the ground.</li><li>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)).</li><li>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.</li><li>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.</li><li>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.</li><li>h. Designing and maintaining all transmission lines so that induced voltages during operation are as low as reasonably achievable.</li><li>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)).</li><li>j. Implement a safety protocol to ensure adherence to NESC grounding requirements</li></ul> <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   |
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| <b>STANDARD: SOIL PROTECTION (SP) [OAR 345-022-0022]</b> |  |
| PRO-SP-01  | <p>Prior to beginning facility operation, the certificate holder shall provide the department a copy of a DEQ-approved operational SPCC plan, if determined to be required by DEQ. If an SPCC plan is not required by DEQ, the certificate holder shall prepare and submit to the department 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"> <li>• Procedures for oil and hazardous material emergency response consistent with OAR 340, Division 142</li> <li>• 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</li> <li>• Current inventory (type and quantity) of all hazardous materials stored onsite, specifying the amounts at each O&amp;M building</li> <li>• Restriction limiting onsite storage of diesel fuel or gasoline</li> <li>• Requirement to store lubricating and dielectric oils in quantities equal to or greater than 55-gallons in qualified oil-filled equipment</li> <li>• Preventative measures and procedures to avoid spills               <ul style="list-style-type: none"> <li>○ Procedures for chemical storage</li> <li>○ Procedures for chemical transfer</li> <li>○ Procedures for chemical transportation</li> <li>○ Procedures for fueling and maintenance of equipment and vehicles</li> <li>○ Employee training and education</li> </ul> </li> <li>• Clean-up and response procedures, in case of an accidental spill or release</li> <li>• Proper storage procedures</li> </ul> <p>Reporting procedures in case of an accidental spill or release<br/>[Final Order on ASC, Soil Protection Condition 5]</p> |
| <b>STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0110]</b> |  |
| 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.<br/>[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 holder shall provide an updated site plan if additional turbines or other structures are later added to the facility.<br/>[Final Order on ASC, Public Services Condition 19]</p>   |



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| PRO-PS-03 | <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.</p> <p>[Final Order on ASC, Public Services Condition 22</p> |
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## 4.6 Operational (OPR) Conditions

| Condition Number  | Operational (OPR) Conditions   |
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| <b>STANDARD: GENERAL STANDARD OF REVIEW (GS) [OAR 345-022-0000]</b> |  |
| 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 345-027-0020(2)]]</p>  |
| <b>STANDARD: SOIL PROTECTION (SP) [OAR 345-022-0022]</b>            |  |
| OPR-SP-01   | <p>During facility operation, the certificate holder shall:</p> <ol style="list-style-type: none"> <li>a. 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.</li> <li>b. 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&amp;M buildings to avoid unnecessary compaction, erosion, or spill risk to the area surrounding the facility.</li> <li>c. 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.</li> </ol> <p>[Final Order on ASC, Soil Protection Condition 6]</p> |
| <b>STANDARD: LAND USE (LU) [OAR 345-022-0030]</b>                   |  |
| 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 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>   |

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| 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.<br/>[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"> <li>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.</li> <li>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.</li> <li>3. Remove gravel from areas surrounding turbine pads.</li> <li>4. Remove and restore private access roads unless the landowners directs otherwise.</li> <li>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.</li> <li>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 Condition 11.</li> <li>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.</li> </ol> <p>[Final Order on ASC, Land Use Condition 27]</p> |
| <b>STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0110]</b> |   |
| OPR-PS-01  | <p>During operation of the facility, the certificate holder shall discharge sanitary wastewater generated at the O&amp;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.<br/>[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&amp;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.<br/>[Final Order on ASC, Public Services Condition 2]</p>  |

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| OPR-PS-03  | <p>During operation, the certificate holder shall implement a waste management plan that includes but is not limited to the following measures:</p> <ol style="list-style-type: none"> <li>a. Training employees to minimize and recycle solid waste.</li> <li>b. Recycling paper products, metals, glass, and plastics.</li> <li>c. Recycling used oil and hydraulic fluid.</li> <li>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.</li> <li>e. Segregating all hazardous and universal, non-recyclable 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.</li> </ol> <p>[Final Order on ASC, Public Services Condition 4]</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>   |
| <b><i>STANDARD: PUBLIC HEALTH AND SAFETY FOR WIND FACILITIES (WF) [OAR 345-024-0010]</i></b> |   |
| OPR-WF-01  | <p>During operation, the certificate holder shall ensure each facility substation is 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]</p>  |

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

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| OPR-TL-01 | <p>During operation, the certificate holder shall:</p> <ol style="list-style-type: none"><li>(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.</li><li>(2) File the following required information with the Commission:<ol style="list-style-type: none"><li>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"><li>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; and</li><li>ii. 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.</li><li>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.</li><li>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]</li></ol></li></ol></li><li>(3) Provide OPUC Safety Staff with:<ol style="list-style-type: none"><li>a. Maps and Drawings of routes and installation of electrical supply lines showing:<ul style="list-style-type: none"><li>• Transmission lines and structures (over 50,000 Volts)</li><li>• Distribution lines and structures - differentiating underground and overhead lines (over 600 Volts to 50,000 Volts)</li><li>• Substations, roads and highways</li><li>• Plan and profile drawings of the transmission lines (and name and contact information of responsible professional engineer).</li></ul></li></ol></li></ol> <p>[Final Order on ASC, Siting Standard Condition 3]</p> |
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**STANDARD: NOISE CONTROL REGULATION (NC) [OAR 345-035-0035]**

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| 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   |
|---|---|
| <b>STANDARD: RETIREMENT AND FINANCIAL ASSURANCE (RT) [OAR 345-022-0050]</b> |   |
| 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]<br/>[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) 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]<br/>[Mandatory Condition OAR 345-027-0020(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**

By: \_\_\_\_\_

Barry Beyeler, Chair

Oregon Energy Facility Siting Council

Date: APRIL 28, 2017

**WHEATRIDGE WIND ENERGY, LLC**

By: \_\_\_\_\_

~~Andrew O'Connell, President~~

Wheatridge Wind Energy, LLC

Date: \_\_\_\_\_

5/24/2017

*Vice President on behalf of*

Attachment A  
Facility Site Boundary Map  
(ASC Exhibit C, Figure C-2)

Figure C-2

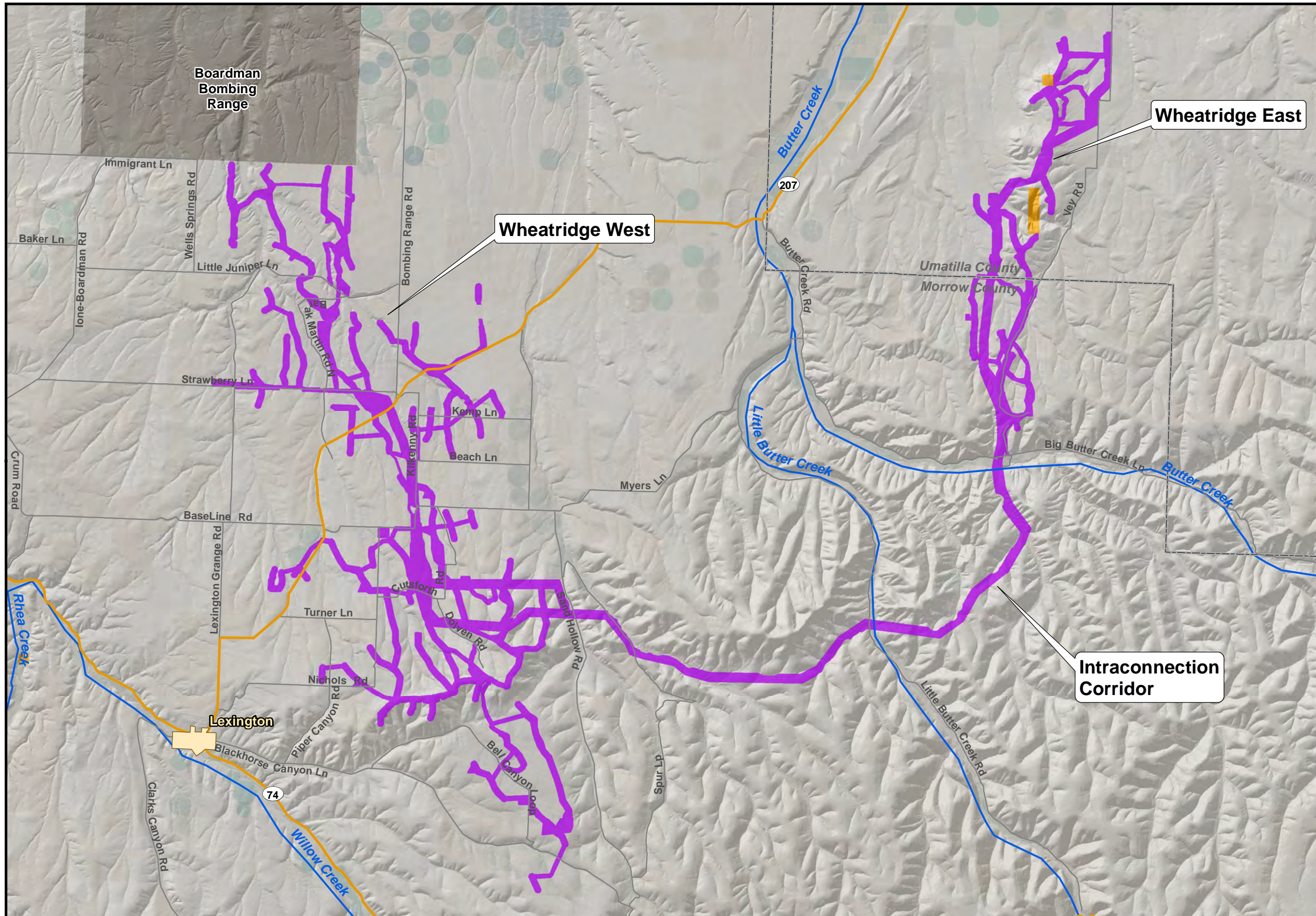
Wheatridge Wind Energy Facility

Facility Location

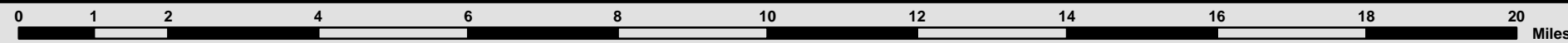


Morrow and Umatilla Counties, OR  
December 2014

-  Site Boundary
-  County Boundary
-  City/Town
-  State Highway
-  Local Road
-  River/Stream
- Land Ownership**
-  Bureau of Land Management
-  Private
-  Dept. of Defense



1:135,000 WGS84 UTM 11



Data Sources Wheatridge Wind Energy: site boundary / ESRI: roads, cities, political boundaries, hydrography / Oregon BLM: land ownership / USDA NAIP: aerial imagery