BEFORE THE
ENERGY FACILITY SITING COUNCIL
OF THE STATE OF OREGON

IN THE MATTER OF THE APPLICATION FOR A SITE CERTIFICATE FOR THE SUMMIT RIDGE WIND FARM

) FINAL ORDER

Issued by

The Oregon Energy Facility Siting Council

August 19, 2011
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ACRONYMS AND ABBREVIATIONS

AMEC  AMEC EARTH AND ENVIRONMENTAL
APPLICANT  LOTUS WORKS – SUMMIT RIDGE I, LLC
ASC  APPLICATION FOR SITE CERTIFICATE
BLM  BUREAU OF LAND MANAGEMENT
BPA  BONNEVILLE POWER ADMINISTRATION
COUNCIL  OREGON ENERGY FACILITY SITING COUNCIL
CRGNSA  COLUMBIA RIVER GORGE NATIONAL SCENIC AREA
CTWSR  CONFEDERATED TRIBES OF THE WARM SPRINGS RESERVATION
DEA  DAVID EVANS AND ASSOCIATES
DBA  DECIBELS
DEPARTMENT  OREGON DEPARTMENT OF ENERGY
DEQ  OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
DOGAMI  OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
DPO  DRAFT PROPOSED ORDER
DRSRA  DESCHUTES RIVER STATE RECREATION AREA
DSL  OREGON DEPARTMENT OF STATE LANDS
EFSC  ENERGY FACILITY SITING COUNCIL
EFU  EXCLUSIVE FARM USE
ESCP  EROSION AND SEDIMENT CONTROL PLAN
FAA  FEDERAL AVIATION ADMINISTRATION
FEMA  FEDERAL EMERGENCY MANAGEMENT AGENCY
FOCG  FRIENDS OF THE COLUMBIA GORGE
HMA  HABITAT MITIGATION AREA
HMP  HABITAT MITIGATION PLAN
ISO  INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
KV  KILOVOLT
LCDC  LAND CONSERVATION AND DEVELOPMENT COMMISSION
LOTUS WORKS  LOTUS WORKS – SUMMIT RIDGE I, LLC
MCE  MAXIMUM CREDIBLE EARTHQUAKE
MET  METEOROLOGICAL
MG  MILLIGAUSS
MW  MEGAWATT
NOI  NOTICE OF INTENT
<table>
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<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>NPDES</td>
<td>National Pollutant Discharge Elimination System</td>
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<td>NRHP</td>
<td>National Register of Historic Places</td>
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<td>NWC</td>
<td>Northwest Wildlife Consultants, Inc</td>
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<td>O&amp;M</td>
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<td>Peak Ground Acceleration</td>
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<td>Public Utility Commission</td>
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<td>RAI</td>
<td>Request for Additional Information</td>
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<td>SAG</td>
<td>Special Advisory Group</td>
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<td>Sensitive - Critical</td>
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<td>Species of Concern</td>
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<td>SV</td>
<td>State Sensitive - Vulnerable</td>
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<td>ZVI</td>
<td>Zone of Visual Influence</td>
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1. **INTRODUCTION**

This Final Order addresses the application for a site certificate (ASC) for the construction and operation of a proposed wind energy generating facility in Wasco County, Oregon. The applicant is LotusWorks – Summit Ridge I, LLC (LotusWorks, or applicant). The applicant has named the facility the Summit Ridge Wind Farm (Summit Ridge). The Oregon Energy Facility Siting Council (Council) issues this Order based on its review of the ASC, public comments, and the comments and recommendations on the ASC and by reviewing agencies, affected local governments, and tribes.

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

The Council recognizes that many specific tasks related to the design, construction, operation and retirement of the facility will be undertaken by the applicant’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 Oregon Administrative Rule (OAR) 345-001-0010 apply to terms used in this Final Order.

**Authority and Jurisdiction of the Council**

It is the public policy of the State of Oregon that “the siting, construction and operation of energy facilities shall be accomplished in a manner consistent with protection of the public health and safety and in compliance with the energy policy and air, water, solid waste, land use and other environmental protection policies of this state.” ORS 469.310. A site certificate issued by the Council binds the state and all counties and cities and political subdivisions of Oregon. Once the Council issues the site certificate, the responsible state agency or local government must issue any necessary permits that are addressed in the site certificate without further proceedings. ORS 469.401(3). The Council has continuing authority over the site for which the site certificate is issued and may inspect the site at any time in order to ensure that the facility is being operated consistently with the terms and conditions of the site certificate. ORS 469.430.

To issue a site certificate for a proposed facility, the Council must determine that “the facility complies with the standards adopted by the Council pursuant to ORS 469.501, or the overall public benefits of the facility outweigh the damage to the resources protected by the standards the facility does not meet.” ORS 469.503(1). The Council must decide whether the proposed facility complies with all other applicable Oregon statutes and administrative rules identified in the Project Order, issued July 30, 2009, excluding requirements governing design or operational issues that do not relate to siting and excluding requirements of federally delegated programs. ORS 469.401(4) and 469.503(3). In addition, the Council must include in the site certificate “conditions for the protection of the public health and safety, for the time for completion of construction, and to ensure compliance with the standards, statutes and rules described in ORS 469.501 and ORS 469.503.” ORS 469.401(2).

The Council is not authorized to determine compliance with regulatory programs that have been delegated to another state agency by the federal government. ORS 469.503(3). Nevertheless, the Council may consider these programs in the context of its own standards to
ensure public health and safety, resource efficiency, and protection of the environment. The
Council has no jurisdiction over design or operational issues that do not relate to siting, such
as matters relating to employee health and safety, building code compliance, wage and hour
or other labor regulations, or local government fees and charges. ORS 469.401(4).

In accordance with ORS 469.370(1), the Oregon Department of Energy (Department)
issues a draft proposed order on an ASC. After the draft proposed order has been issued, the
Council must conduct at least one public hearing in the affected area. At the hearing, the
Council takes public comment on the ASC and draft proposed order. ORS 469.370(2). Any
issues that may be the basis for a contested case hearing must be raised by the public hearing
comment deadline or they are waived and cannot be considered in a contested case. ORS
469.370(3).

After the public hearing and Council’s review of the draft proposed order, the
Department issues a proposed order. The Department issues a public notice of the proposed
order and a notice to eligible persons that specifies a deadline for requests to participate as a
party in the contested case and the date for the initial prehearing conference. ORS 469.370(4).
Only those who appeared in person or in writing at the public hearing on the ASC and draft
proposed order (described in the preceding paragraph) may request to become parties to the
contested case, and only those issues that were raised on the record of the public hearing with
sufficient specificity can be considered in the contested case. ORS 469.370(2).

After the conclusion of the contested case proceeding, the Council decides whether to
grant a site certificate and issues a final order based on the standards adopted under ORS
469.501 and any additional state statutes, rules, or local government ordinances determined to
be applicable to the proposed facility. ORS 469.370(7).

The Council’s final order is subject to judicial review by the Oregon Supreme Court.
Only a party to the contested case may request judicial review, and the only issues that may
be subject to judicial review are issues that parties to the contested case have raised. A
petition for judicial review must be filed with the Supreme Court within 60 days after the date
of service of the Council’s final order or within 30 days after the date the petition for
rehearing is denied or deemed denied. ORS 469.403.
II. PROCEDURAL HISTORY OF THE SUMMIT RIDGE ASC REVIEW

II.A. NOTICE OF INTENT

On May 28, 2009 LotusWorks submitted to ODOE a Notice of Intent (NOI) to submit an Application for Site Certificate (ASC) for Summit Ridge. The Department issued public notice to the Council's general mailing list and to adjacent property owners on June 11, 2009, and also published notice of the NOI in The Dalles Chronicle, a newspaper of general circulation in the area. The NOI comment period was open from June 11 through July 13, 2009. A copy of the NOI and public notice were sent to The Dalles-Wasco County Library and the Dufur School/Community Library, the designated information repositories for documents related to the Summit Ridge project.

A memorandum to reviewing agencies requesting review of the Summit Ridge NOI was issued on June 11, 2009. ODOE held a public information meeting on the Summit Ridge NOI at Dufur High School in Dufur, Oregon on June 25, 2009. On July 31, 2009 the Council appointed the Wasco County Board of Commissioners as a Special Advisory Group (SAG).

At the close of the NOI comment period the Department had received comments from the Wasco County Public Works Department, Oregon Department of Fish and Wildlife (ODFW), the Oregon Parks and Recreation Department (OPRD), the State Historic Preservation Office (SHPO, an office within OPRD), and the U.S. Fish and Wildlife Service (USFWS).

Comments from the Wasco County Planning Department were received on July 14, 2009. ODOE issued the Project Order for the Summit Ridge project on July 30, 2009, specifying the state statutes, administrative rules, and local, state, and tribal permitting requirements applicable to the construction and operation of the Summit Ridge Wind Farm.

II.B. APPLICATION FOR SITE CERTIFICATE

LotusWorks submitted a preliminary ASC for the proposed Summit Ridge Wind Farm to ODOE on September 30, 2009. A memorandum to reviewing agencies requesting review of the Summit Ridge preliminary ASC was issued on October 6, 2009. Reviewing agencies were requested to comment on the completeness of the preliminary ASC no later than November 18, 2009. The Department received comments from the Oregon Department of State Lands (DSL), ODFW, and the USFWS by the deadline. Comments from the Wasco County Planning Department were received on December 7, 2009.

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1 Notice of Intent to Apply for an Energy Facility Site Certificate for the Summit Ridge Wind Project in Wasco County, Oregon, May 28, 2009 (SRW-0003). "SRW-0003" is a document identification number assigned by the Oregon Department of Energy (ODOE). Document citations in this Order are generally listed in footnotes with a title, date, and the ODOE document identification number; subsequent citations to documents previously referenced are listed by document identification number only. Exhibit 5 includes an index to the documents with an ODOE document identification number cited in this Order.

2 EFSC Order Appointing the Special Advisory Group Wasco County Court, July 31, 2009 (SRW-0074)

3 Summit Ridge Wind Project—Project Order, July 30, 2009 (SRW-0020)

4 Summit Ridge Wind Farm Preliminary ASC, September 30, 2009 (SRW-0108)

5 Reviewing Agency Memo - Request for Comments on the Preliminary Application for Site Certificate for the Summit Ridge Wind Farm, October 6, 2009 (SRW-0057)

6 Department of State Land Comments on the preliminary application for site certificate—Summit Ridge Wind Farm, November 16, 2009 (SRW-0062)

7 ODFW's Comments on Summit Ridge Wind Farm ASC - General Comments, Exhibit J, Exhibit P and Exhibit R, November 18, 2009 (SRW-0060)
On November 30, 2009 ODOE sent LotusWorks a letter stating that the application was
incomplete and requested additional information (RAI #1).10 The applicant submitted a
response to RAI #1 on January 19, 2010.11 Following its review of the RAI #1, ODOE issued
RAI #2 on March 8, 2010.12 LotusWorks responded on March 26, 2010.13 The applicant
submitted numerous additional documents to supplement the response to RAI #2 between
March 31 and July 1, 2010.

On April 30, 2010 the Council appointed Mr. John Burgess as hearing officer to conduct
the public hearing on the draft proposed order and to conduct the contested case proceeding.14
ODOE issued a letter on July 15, 2010 to the applicant describing the final information
necessary to determine completeness of the preliminary ASC.15 LotusWorks submitted a
response in the form of a revised application on July 30, 2010.16 ODOE completed its review
of the Final ASC and deemed the application complete on August 24, 2010.17 The applicant
distributed the complete ASC, accompanied by a memorandum prepared by the Department,
to the list of reviewing agencies designated by the Department in its August 24 letter. The
memorandum requested the reviewing agencies provide their comments no later than
September 20, 2010.18 A copy of the complete ASC was also sent to the designated
information repositories.

ODOE issued a public notice requesting comment on the ASC to the Council’s general
mailing list, the project mailing list, and to adjacent property owners on August 27, 2010.19
The notice was also published in The Dalles Chronicle. A public information meeting was
held on September 14, 2010 at The Dalles City Hall. The comment period closed on
September 27, 2010.

The Department received comments from the Wasco Electric Cooperative20 on August
20, Oregon Water Resources Department (OWRD)21 on August 25, the DSL22 on September

8 USFWS Comments on Completeness of the Summit Ridge Wind Farm Application for Site Certificate, November 18, 2009 (SRW-0061)
9 Wasco County Planning Department Comments on Exhibit K of the Summit Ridge Wind Farm preliminary Application for Site Certificate, December 7, 2009 (SRW-0064)
10 ODOE Request for Additional Information #1 (RAI#1) on the preliminary application for Site Certificate - Summit Ridge Wind Farm, November 30, 2009 (SRW-0063)
11 Summit Ridge Wind Project: Response to RAI #1, January 19, 2010 (SRW-0037)
12 Request for Additional Information #2 Regarding the Preliminary Site Certificate Application, March 8, 2010 (SRW-0038)
13 Summit Ridge Wind Farm Response to RAI2 - redline of pASC, March 26, 2010 (SRW-0110)
14 EFSC Order Appointing A Hearing Officer-Summit Ridge Wind Farm, April 30, 2010 (SRW-0073)
15 Letter to Summit - Final Information Necessary to Determine Completeness, July 15, 2010 (SRW-0082)
16 Final Application for Site Certificate (Volumes I & II) - Summit Ridge Wind Farm (August 2010), July 30, 2010 (SRW-0143)
18 Complete ASC Reviewing Agency Memo, August 24, 2010 (SRW-0095)
19 Public Notice: Information Meeting and Request for Comments on the Summit Ridge Wind Project Application for Site Certificate, August 27, 2010 (SRW-0055)
20 Wasco Electric Cooperative Comments on the Summit Ridge Wind Farm Application for Site Certificate, August 26, 2010 (SRW-0089)
21 Water Resources Department Comment on ASC, August 25, 2010 (SRW-0085)
II.C. RECORD OF THE PUBLIC HEARING ON THE DRAFT PROPOSED ORDER

The Department issued the Draft Proposed Order (DPO) for public comment on January 14, 2011. The DPO and initial public notice stated that the record of the Hearing on the DPO would close on February 3, 2011, and that the DPO would be reviewed by the Council the following day at the Council’s regularly scheduled meeting. A public hearing was conducted by the hearing officer (Mr. John Burgess) on February 3, 2011, as originally scheduled. However, due to a delay in the availability of the DPO on the Department’s website and a request from the FOOG that the comment period be extended, Mr. Burgess announced at the hearing that the comment period on the DPO would be extended through February 24, 2011. Mr. Burgess issued an Order to that effect on February 7, 2011. The Department issued a supplemental public notice on February 8, 2011 to announce the extension of the record of the public hearing on the DPO. The review of the DPO by the Council was rescheduled for March 4, 2011.

Six persons provided oral testimony at the hearing held on February 3, 2011 (two of these commenters also provided written testimony). The Department received a total of 19 written comments during the DPO comment period (including those received at the February 3 hearing). A summary of public and agency comments on the record of the DPO hearing is presented below.

The following persons expressed general support for the proposed facility, and these comments are not specifically addressed further in this Order:

22 Summit Ridge Wind Farm Email from Sarah Kelly Exhibit E Page 3, September 15, 2010 (SRW-0102)
23 USFWS Comment on the Summit Ridge Wind Farm Application for Site Certificate, September 20, 2010 (SRW-0100)
24 Friends of the Columbia Gorge Comments on the Summit Ridge Wind Farm Application for Site Certificate, September 27, 2010 (SRW-0087)
25 Friends of the Columbia Gorge Supplemental Comments, October 8, 2010 (SRW-0088)
26 Summit Ridge Wind Farm Final 1-14-11 Draft Proposed Order (DPO) with Exhibits, January 14, 2011 (SRW-0107)
27 Summit Ridge Wind Farm Public Notice for Draft Proposed Order (DPO), January 14, 2011 (SRW-0103)
28 Audio Recording of Summit Ridge Wind Farm Public Hearing that was held on February 3, 2011 at Northern Wasco County PUD Facility in The Dalles, Oregon, February 3, 2011 (SRW-0135)
29 Summit Ridge Draft Proposed Order Presentation 3-4-11 EFSC Meeting, March 4, 2011 (SRW-0134)
30 Notice of Extension of the Comment Period for the Summit Ridge Wind Farm Draft Proposed Order, February 8, 2011 (SRW-0111)
31 SRW-0135
32 On April 20, 2011 the Council appointed J. Kevin Shuba as hearing officer to replace John Burgess (SRW-0136). Mr. Shuba reviewed the record of the public hearing and prepared a Hearing Officer Report, June 17, 2011 (SRW-0149).
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- Garry and Janna Hage, The Dalles, Oregon. 33
- Carina Schmidt, Mosier, Oregon. 34
- Douglas Tuning, The Dalles, Oregon. 35
- Michael Zinge, Chairman of Partners for Economic Progress, The Dalles, Oregon. 36
- Jeff Easton, The Dalles, Oregon. 37
- Tim Norgren, The Dalles, Oregon. 38
- Shane Ervin (address unknown). 39
- Stephen Jensen, The Dalles, Oregon. 40
- Vincent Maldonado, The Dalles, Oregon. 41
- Colin Smith, The Dalles, Oregon (oral testimony only).
- Wes Bliven, The Dalles, Oregon (oral testimony only).
- Rod Runyan, Wasco County Commissioner, The Dalles, Oregon (oral testimony only).

The following comments expressed concern about various issues related to wind energy
generally, but did not raise specific issues related to compliance with siting standards. The
Department has reviewed and considered these comments but has not specifically addressed them
further in this Final Order.

Tom Wood of The Dalles, Oregon, provided both oral and written testimony at the DPO public
hearing. 42
- Supports changing to cleaner forms of energy.
- Concerned about the loss of open natural places, including the impact of wind facilities in the
  Deschutes River area.
- Did not specifically express support or opposition to the proposed Summit Ridge facility.

Glenn Harrison, Chair of the Oregon Historic Trail Advisory Council and past President of the
Oregon-California Trail Association provided oral comments.
- Concerned that the proposed Summit Ridge Wind Farm should avoid any impacts not only to
  the Oregon Trail, but also to other historic trails in the project area (such as the Barlow Trail
cutoff). 43

33 Written Comment from Garry & Janna Hage submitted at the Summit Ridge Wind Farm DPO Hearing,
January 31, 2011 (SRW-0115)
34 Written Comment from Carina Schmidt submitted at the Summit Ridge Wind Farm DPO Hearing, February
2, 2011 (SRW-0116)
35 Public Comment from Douglas Tuning on Summit Ridge Wind Farm Draft Proposed Order, February 3,
2011 (SRW-0119)
36 Public Comment from Partners for Economic Progress (P.E.P.) on Summit Ridge Wind Farm Draft
Proposed Order, February 24, 2011 (SRW-0122)
37 Public Comment from Jeff Easton on Summit Ridge Wind Farm DPO, February 23, 2011 (SRW-0125)
38 Public Comment from Tim Norgren on Summit Ridge Wind Farm DPO, February 21, 2011 (SRW-0126)
39 Public Comment from Shane Ervin on Summit Ridge Wind Farm DPO, February 16, 2011 (SRW-0127)
40 Public Comment from Stephen Jensen on Summit Ridge Wind Farm DPO, February 3, 2011 (SRW-0129)
41 Public Comment from Vincent Maldonado on Summit Ridge Wind Farm DPO, February 1, 2011 (SRW-
0131)
42 Summit Ridge Wind Farm DPO Hearing Written Comment from Tom Wood, February 3, 2011 (SRW-
0114)
43 The protection of historic, cultural and archaeological resources is addressed in Section V.B of this Order
and includes recommended site certificate conditions requiring the certificate holder to implement an
Archaeological Monitoring Plan and to protect cultural resources during construction and operation.
Richard Jolly provided written comments on behalf of the Blue Mountain Alliance, Umatilla County.\(^{44}\)
- Council should not allow the siting of wind turbines within six miles of Golden Eagle nests, largely based on concern over population impacts.\(^{45}\)
- Concerned that cumulative effects data on state wide bird mortality totals and also totals for bird mortalities per project are inadequate.

Doug Heiken provided written comments on behalf of Oregon Wild (Eugene, Oregon).\(^{46}\)
- Concerned that the proximity of the proposed Summit Ridge facility to both the Deschutes River and the Mt. Hood National Forest increases the possibility of avian mortality.
- Concerned that fisheries in the Deschutes River might be adversely affected by increased erosion and sedimentation resulting from the extensive road network necessary to construct and operate the project.\(^{47}\)

Jim Maloney provided written comments on behalf of the Lane County Audubon Society (LCAS).\(^{48}\)
- Concerned about cumulative effects of turbines on avian mortality.
- Concurred with previous ODFW comments and USFWS position on golden eagles.
- General mitigation should be required for anticipated fatalities.
- Urges surveys, monitoring and that Council incorporate USFWS’s Draft Eagle Conservation Plan Guidance.\(^{49}\)

Tyler and Leanne Neal, residents about 20 miles south of the proposed facility, provided written comment.\(^{50}\)
- Concerned about avian protection, recommended a 6-mile buffer around Golden Eagle nesting sites.
- Concerned about visual impacts.
- Concerned about traffic safety impacts and conflicts caused by the movement of turbine parts, especially on Highway 197.\(^{51}\)

The following commenters provided oral or written testimony that raised or responded to issues specifically related to compliance with one or more of the siting standards. This testimony is addressed in the proposed findings, as it relates to the specific standards at issue.

Peter Cornelison, representing Friends of Columbia Gorge (FOCG), presented oral and written comments at the public hearing.\(^{52}\) Richard Till, also representing FOCG, provided written comments.

\(^{44}\) Public Comment from Richard Jolly on Summit Ridge Wind Farm DPO, February 3, 2011 (SRW-0130)
\(^{45}\) Section IV.C addresses the Council’s Fish and Wildlife Habitat standard. See Section IV.G.1.b and IV.G.1.c of this Proposed Order for further discussion of potential impacts to Golden Eagle and other avian species (and proposed mitigation measures).
\(^{46}\) Public Comment from Doug Heiken on Summit Ridge Wind Farm DPO, February 16, 2011 (SRW-0128)
\(^{47}\) See Section IV.G.1.b and IV.G.1.c for further discussion of potential impacts to avian species.
\(^{48}\) Public Comment from Lane County Audubon Society on Summit Ridge Wind Farm DPO, February 24, 2011 (SRW-0123)
\(^{49}\) See Section IV.G.1.b and IV.G.1.c for further discussion of potential impacts to avian species.
\(^{50}\) Public Comment from Tyler and Leanne Neal on Summit Ridge Wind Farm DPO, February 24, 2011 (SRW-0121)
\(^{51}\) Traffic safety and conditions imposed to address potential impacts and conflicts are addressed under the Public Services Standard (OAR 345-022-0110) and conditions recommended in section V.C.2., especially Condition V.C.2.15.
on February 3, 2011,\footnote{Summit Ridge Wind Farm DPO Hearing Written Comment from Friends of the Columbia Gorge, February 3, 2011 (SRW-0117)} which were superseded by FOCG comments submitted by Mr. Till on February 24, 2011.\footnote{Public Comment from the Friends of the Columbia Gorge on Summit Ridge Wind Farm DPO, February 3, 2011 (SRW-0132)} The following list incorporates and summarizes the FOCG comments:

- Visual impacts of the proposed Summit Ridge facility on the Columbia Gorge National Scenic Area and the Deschutes River Wild and Scenic Rivers.
  - Compliance with Scenic and Aesthetic Standard (OAR 345-022-0080)
  - Compliance with Protected Areas Standard (OAR 345-022-0040(k))
  - Compliance with Recreational Standard (OAR 345-022-0100)
  - Compliance with Land Use standard (OAR 345-022-0030), particularly with local government compatibility requirement for Deschutes Wild and Scenic River
  - Adequacy of modeling for visual impacts
  - Compliance with Columbia River Gorge Management Plan and requirements of the Wild and Scenic Rivers requirements for the Deschutes River

- Concern about impacts to avian species, particularly Bald and Golden Eagles.
  - Compliance with Fish and Wildlife Habitat Standard (OAR 345-022-0060); scientific studies should be peer reviewed.
  - United States Fish and Wildlife Service comments are not addressed.

- Council must apply the public interest balancing test before approving the Summit Ridge Project.\footnote{SRW-0120}

Richard Allan, Ball Janik LLP,\footnote{Agency Comment from Wasco County Planning and Development on Summit Ridge Wind Farm DPO, February 24, 2011 (SRW-0124)} representing the applicant (Lotus Works – Summit Ridge) responded to the comments submitted by the Friends of Columbia Gorge on February 3, 2011 (SRW-0132). Mr. Allan clarified applicable standards, including visual resources, land use and avian impacts; and responded to methodological issues.

Gary Nychoyk, Interim Planning Director, provided comments on behalf of the Wasco County Planning and Development Office.\footnote{SRW-0120} Mr. Nychoyk’s comments responded to several issues raised by Friends of the Columbia Gorge relating to compliance with local land use requirements, and are discussed further in section IV.D of this Order.

\footnote{For each of the standards identified in the FOCG comments, the Council finds that the standard is satisfied, subject to imposition of conditions in the site certificate. Therefore, no balancing is required under OAR 345-022-0060 (2).}
A copy of the record of the public hearing on the Draft Proposed Order was provided to the members of the Energy Facility Siting Council on April 25, 2011. The Draft Proposed Order was presented to the Council on March 4, 2011. Based on its final review of the complete application and the comments received during the comment period on the application and comments received on the record of the public hearing for the Draft Proposed Order, the Department issued a Proposed Order.

II.D. THE PROPOSED ORDER AND CONTESTED CASE PROCEEDING

A Proposed Order was issued with a Notice of Contested Case Proceeding on June 23, 2011. The deadline for requests to participate as a party in the contested case was on July 7, 2011. No petitions or requests for a contested case proceeding were received. In a letter dated July 11, 2011, the applicant confirmed through its attorney that it had no issues to raise in the contested case. The hearing officer cancelled the pre-hearing conference and hearing (pursuant to ORS 469.370(6)), and concluded the contested case proceeding on July 12, 2011. The Council therefore issues this Final Order.

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58 Transmittal Memo and Index of DPO Comments that were sent to Council, Janet Prewitt and Larry Knudsen, both of the Department of Justice, Natural Resources Division, April 25, 2011 (SRW-0138)
59 Summit Ridge Draft Proposed Order Presentation 3-4-11 EFSC Meeting, March 4, 2011 (SRW-0134)
60 Summit Ridge Wind Farm--Proposed Order, June 23, 2011 (SRW-0150)
61 Summit Ridge Wind Farm: Notice of Contested Case Proceeding (on the Proposed Order), June 23, 2011 (SRW-0151)
62 Applicant Request for Contested Case Proceeding Closure via Ball Janik LLP, July 11, 2011 (SRW-0158)
63 Order Concluding Contested Case, July 12, 2011 (SRW-0157)
III. DESCRIPTION OF THE FACILITY

The information presented in this section is drawn from the Application for Site Certificate (ASC). Section III.A describes the Location and Site Boundary, Section III.B describes the Energy Facility, and Section III.C discusses the construction timeline requested by the applicant. Section III.D contains site certificate conditions related to the description and location of the facility and the construction timeline.

III.A. LOCATION AND SITE BOUNDARY

Exhibit B (General Information) and Exhibit C (Location) of the ASC provide the description of the proposed facility. The Summit Ridge Wind Farm would be located in Wasco County, Oregon approximately 17 miles southeast of The Dalles and eight miles east of Dufur, Oregon. The facility site boundary encompasses approximately 25,000 acres on private land subject to long-term wind energy leases with the landowners. The predominant land use within the site boundary is dryland wheat farming, with some grazing where terrain is not conducive to growing crops. There is no crop irrigation within the site boundary.

As defined by OAR 345-001-0010, the “site boundary” is the perimeter of the site of the energy facility, its related or supporting facilities, all temporary laydown and staging areas and all corridors and micrositing corridors. The Council has recognized the need for wind energy developers to have flexibility to “microsite” the final location of wind turbines and related infrastructure after issuance of a site certificate, based on turbine selection, geotechnical constraints, site-specific wind resource factors, avoidance of high-value wildlife habitat and the desire to reduce conflict with farming practices. The Summit Ridge turbines will be located within micrositing corridors approximately 1,300 feet wide.

The facility encompasses all or portions of the following:

- Township 1 South, Range 14 East, Sections 14, 15, 20, 21, 22, 23, and 24
- Township 1 South, Range 15 East, Sections 11, 12, 13, 14, 15, 19, 20, 22, 23, 24, 26, 27, 28, 29, 32, 33, 34, and 35
- Township 2 South, Range 14 East, Sections 12 and 13
- Township 2 South, Range 15 East, Sections 2, 3, 4, 5, 7, 8, 9, 10, 17, 18, 19, 20, 29, 30, 31, and 32
- Township 3 South, Range 15 East, Sections 5 and 6

III.B. THE ENERGY FACILITY

The combined peak generating capacity of Summit Ridge would be up to 200.1 megawatts (MW). The average electric generating capacity would be approximately 67 MW. The facility would consist of up to 87 wind turbine generators, each producing 1.8 to 2.3 MW of electrical power. Turbines would be mounted on tubular steel towers approximately 80 meters (263 feet) tall at the turbine hub, with a rotor diameter of 101 meters (331 feet). Any increase in the number of turbines or the peak generating capacity would require an amendment of the site certificate.

A wind turbine features a nacelle mounted on a tubular steel tower. The nacelle houses the generator and gearbox and supports the rotor and blades at the hub. The turbine tower supports and provides access to the nacelle. The foundation design for each turbine is determined based on site-specific geotechnical information and structural loading.

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64 ORS 469.300(4) defines the “average electric generating capacity” of a wind energy facility as the peak generating capacity divided by 3.00.
requirements of the selected turbine model. A gravel turbine pad area would surround the
base of each concrete turbine foundation.

A step-up transformer increases the output voltage of the wind turbine generator to the
voltage of the power collection system. The step-up transformer could be installed on its own
concrete pad at the base of each wind turbine tower, or located in the nacelle, depending on
the final turbine model selected. The turbines are generally grouped in "strings" within the
micrositing corridors. A power collection system (described below) transmits the power
generated by each turbine to a substation.

The Summit Ridge Wind Farm includes the following related or supporting facilities:

- Power collection system
- Collector substation
- 230 kV transmission line
- Supervisory Control and Data Acquisition (SCADA) System
- Operations and maintenance (O&M) facility
- Meteorological (met) towers
- Access roads
- Temporary roadway modifications
- Additional temporary construction areas (including laydown areas, crane paths, and a
  concrete batch plant)

**Power Collection System**

Each wind turbine generates power ranging from approximately 600 volts to 690 volts, and
the transformer located next to or inside of each turbine will increase the voltage to 34.5 kilovolts
(kV). Power from each turbine will be transmitted via the approximately 49-mile collection line
system to the collector substation. The new 34.5 kV collection lines will be constructed
underground to the extent possible, although the applicant has requested flexibility during
micrositing to construct up to 10% of the collector lines aboveground due to site-specific
geotechnical or environmental considerations. Aboveground segments would be supported by H-
frame wood poles approximately 55 feet in height. The exact length of the collection line system
cannot be determined until the final micrositing layout and the geotechnical investigations have
been completed.

**Collector Substation**

The 34.5 kV collector line system will link each turbine to the facility collector substation,
which will step up the power from 34.5 kV to 230 kV. The centrally-located collector substation
will occupy approximately five acres, surrounded by a graveled, fenced area.

**230 kV Transmission Line**

A new overhead 230 kV transmission feeder line will connect the facility's collector
substation to the regional grid at a substation operated by the Bonneville Power Administration
(BPA). The new overhead 230 kV transmission line will be approximately eight miles in length,
running northwest from the collector substation for approximately two miles, then almost due
west for another six miles to the BPA substation, connecting with BPA's 500 kV "Big Eddy to
Maupin-Redmond" transmission line. The Summit Ridge transmission line will be supported on
wooden H-frame poles that are 70 feet in height and spaced approximately 800 feet apart. The
right-of-way for the transmission line is approximately 150 feet wide.
BPA will be responsible for the operation and maintenance of the interconnection facility. If
the Summit Ridge facility were to cease operation and a decommissioning/retirement plan is
implemented, the transmission system operator is not obliged under the site certificate to
dismantle the interconnection station, which will also be used to serve other customers.

**Supervisory Control and Data Acquisition (SCADA) System**

A SCADA system will be installed at the facility to enable remote operation and collect
operating data for each wind turbine, and archive wind and performance data. The SCADA
system will be linked via fiber optic cables or other means of communication to a central
computer in the Operations and Maintenance (O&M) building. SCADA system wires will be
installed in the collector line underground trenches, or overhead as necessary with the collector
line.

**Operations and Maintenance (O&M) Facility**

One permanent O&M facility will be located within the five-acre facility collector substation
site, and will include up to 10,000 square feet of enclosed space for office and workshop areas, a
control room, and kitchen and sanitary facilities. The O&M facility will have an adjacent
graveled parking area and an approximately 300-foot by 300-foot fenced storage area.

**Meteorological Towers**

A maximum of three permanent un-guyed met towers will be placed within the site boundary
to collect wind resource data (these towers will replace seven existing temporary towers). The
met towers will be the same height as the hub of the turbines, approximately 80 meters (263 feet)
tall. Met tower foundations may be constructed as deep as 40 feet, depending on soil conditions
and geotechnical engineering requirements.

**Access Roads**

Approximately 19 miles of new roads will be constructed within the site boundary to provide
access to the turbines and other facility components. Access roads will be designed to be 20-foot
wide graveled surfaces with 10-foot compacted shoulders to accommodate construction cranes.
After the completion of construction, all new roads within the site boundary will be restored to a
total width of 20 feet for general use during facility operation.

**Temporary Roadway Modifications**

Approximately six miles of existing roads will be upgraded to accommodate construction and
operation of the facility. Where needed, existing roads will be improved to 20-foot wide graveled
surfaces with 10-foot compacted shoulders to accommodate construction equipment and cranes.
After the completion of construction, improved roads within the site boundary will be restored to
a total width of 20-feet for general use during facility operation.

**Additional Construction Areas**

During construction, six temporary laydown areas will be used for the delivery and staging of
wind turbine components and other equipment and materials, as well as the staging of
construction trailers for the construction crews. Five of the six temporary laydown areas will be
located on approximately four acres, covered with gravel, which will be removed upon
completion of facility construction. The sixth temporary laydown area will encompass the
permanent five-acre collector substation and O&M site. Concrete for construction of the facility
would be obtained from an on-site concrete batch plant to be located on a graveled 2-acre site within the site boundary. The batch plant will be permitted and operated by a third-party.

III.C. CONSTRUCTION TIMELINE

The applicant has requested to begin construction of the Summit Ridge wind facility within three years of the date of issuance of the site certificate, and proposes to complete construction no later than six years after issuance of the site certificate. [See Conditions III.D.1 and III.D.2.]

III.D. SITE CERTIFICATE CONDITIONS

OAR 345-027-0020 (Mandatory Conditions in Site Certificates), OAR 345-027-0023 (Site Specific Conditions), OAR 345-027-0028 (Monitoring Conditions) OAR Chapter 345, Division 26 (Construction and Operation Rules for Facilities) provide for conditions that must be included in every site certificate. In this Final Order, these conditions are included and noted as a “Mandatory Condition” with the applicable OAR reference. The site certificate conditions related to the description and location of the facility and the construction timeline (discussed above) are included in this section. Other mandatory conditions are included with the related standard in other sections of this Final Order. As required by these rules, the Council includes the following conditions in the site certificate:

III.D.1 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), a site certificate is effective upon execution by the Council Chair and the applicant. The Council may grant an extension of the deadline to begin construction in accordance with OAR 345-027-0030 or any successor rule in effect at the time the request for extension is submitted.

[Site Certificate Condition 4.1] [Mandatory Condition OAR 345-027-0020(4)]

III.D.2 The certificate holder shall complete construction of the facility within six years after the effective date of the site certificate. Construction is complete when: 1) the facility is substantially complete as defined by the certificate holder’s construction contract documents, 2) acceptance testing has been satisfactorily completed and 3) the energy facility is ready to begin operation consistent with the site certificate. The certificate holder shall promptly notify the Department of the date of completion of construction. The Council may grant an extension of the deadline for completing construction in accordance with OAR 345-027-0030 or any successor rule in effect at the time the request for extension is submitted.

[Site Certificate Condition 4.2] [Mandatory Condition OAR 345-027-0020(4)]

III.D.3 The certificate holder shall submit a legal description of the site to the Department of Energy within 90 days after beginning operation of the facility. The legal description required by this rule means a description of metes and bounds or a description of the site by reference to a map and geographic data that clearly and specifically identifies the outer boundaries that contain all parts of the facility.

[Site Certificate Condition 4.3] [Mandatory Condition OAR 345-027-0020(2)]

III.D.4 The certificate holder shall design, construct, operate and retire the facility:

(a) Substantially as described in the site certificate;

(b) In compliance with the requirements of ORS Chapter 469, applicable Council rules, and applicable state and local laws, rules and ordinances in effect at the time the site certificate is issued; and

(c) In compliance with all applicable permit requirements of other state agencies.
III.D.5 Before beginning construction, the certificate holder shall provide to the Department a description of the turbine types selected for the facility demonstrating compliance with this condition. The certificate holder may select turbines of any type, subject to the following restrictions and compliance with all other site certificate conditions:

(a) The total number of turbines at the facility must not exceed 87 turbines.

(b) The combined peak generating capacity of the facility must not exceed 200.1 megawatts and the peak generating capacity of any individual turbine must not exceed 2.3 megawatts.

(c) The turbine hub height must not exceed 80 meters and the maximum blade tip height must not exceed 132 meters above grade.

(d) The minimum blade tip clearance must be 28 meters above ground.

III.D.6 Except as necessary for the initial survey or as otherwise allowed for wind energy facilities, transmission lines or pipelines under OAR 345-027-0020, the certificate holder shall not begin construction, as defined in OAR 345-001-0010, or create a clearing on any part of the site until the certificate holder has construction rights on all parts of the site. For the purpose of this rule, "construction rights" means the legal right to engage in construction activities. For wind energy facilities, transmission lines or pipelines, if the certificate holder does not have construction rights on all parts of the site, the certificate holder may nevertheless begin construction, as defined in OAR 345-001-0010, or create a clearing on a part of the site if the certificate holder has construction rights on that part of the site and:

(a) The certificate holder would construct and operate part of the facility on that part of the site even if a change in the planned route of the transmission line or pipeline occurs during the certificate holder's negotiations to acquire construction rights on another part of the site; or

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

III.D.7 The certificate holder shall request an amendment of the site certificate to increase the combined peak generating capacity of the facility beyond 200.1 megawatts, to increase the number of wind turbines to more than 87 wind turbines or to install wind turbines with a hub height greater than 80 meters, a blade tip height greater than 132 meters or a blade tip clearance less than 28 meters above ground.

III.D.8 The certificate holder shall construct the turbines and transmission line within the corridor locations set forth in Exhibit C of the application for site certificate, subject to the conditions of this site certificate.
IV. ENERGY FACILITY SITING STANDARDS

IV.A. GENERAL STANDARD OF REVIEW [OAR 345-022-0000]

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

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

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

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The requirements of OAR 345-022-0000 are addressed throughout this order. Section IV includes the following subsections, each of which includes Findings of Fact, Conditions (including mandatory conditions, if applicable), and Conclusions of Law:

IV.B Organizational Expertise (OAR 345-022-0010)
IV.C Soil Protection (OAR 345-022-0022)
IV.D Land Use (OAR 345-022-0030)
IV.E Protected Areas (OAR 345-022-0040)
IV.F Retirement and Financial Assurance (OAR 345-022-0050)
IV.G Fish and Wildlife Habitat (OAR 345-022-0060)
IV.H Threatened and Endangered Species (OAR 345-022-0070)
IV.I Scenic Resources (OAR 345-022-0080)
IV.J Recreation (OAR 345-022-0100)
IV.K Public Health and Safety Standards (OAR 345-024-0010)
IV.L Siting Standards for Wind Energy Facilities (OAR 345-024-0015)
IV.M Siting Standards for Transmission Lines (OAR 345-024-0090)
IV.B. ORGANIZATIONAL EXPERTISE [OAR 345-022-0010]

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

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

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

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

IV.B.1 ORGANIZATIONAL EXPERTISE: FINDINGS OF FACT

The applicant provided evidence of its organizational expertise in Exhibit D of the ASC and about permits needed for construction and operation of the facility in Exhibit E of the ASC. The applicant does not propose to design, construct and operate the proposed facility in accordance with an International Organization for Standardization (ISO) 9000 or ISO 14000 certified program. The applicant states it will not rely on any third-party permit approval for state, local, or federal permits required for construction or operation of the facility. Therefore, the Council finds that the requirements of OAR 345-022-0010(2), (3), and (4) do not apply to the proposed facility.

The Summit Ridge project represents the applicant’s first permitting effort for a solely owned and operated wind power facility in Oregon. However, the applicant’s description of its expertise includes extensive experience in pre-construction management, construction management, accounting, and training. The applicant has engaged in the construction management and operation of the White Creek Wind I Project (205 MW) in Washington, and construction management of the Wild Horse Wind Project (250 MW) in Washington and the

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63 Final ASC, Section D.7, p. 4
64 Final ASC, Section E.5, p. 9
Elkhorn Wind Project (100 MW) in eastern Oregon. It has also provided the White Creek Wind I project with site inspectors and support staff. The applicant states that it has not received any regulatory citations in the course of constructing or operating wind energy facilities.

The applicant has identified specific qualified and experienced internal personnel for management of the design, construction, and operation of the proposed facility. It has not selected a prime contractor for construction of the proposed facility but states that it would hire qualified contractors with direct experience in wind energy facility construction to design and build the proposed facility.

Subject to compliance with the site certificate conditions listed below, the Council finds that LotusWorks, as the certificate holder, has demonstrated it has the experience necessary to design, construct, and operate the proposed facility in compliance with site certificate conditions, as required by the Organizational Expertise standard.

**IV.B.2 Organizational Expertise: Site Certificate Conditions**

Based on the review of the information provided in Exhibit D of the ASC and other evidence in the record, and to ensure compliance with the Organizational Expertise Standard in OAR 345-022-0010, the Council includes the following conditions in the site certificate:

**IV.B.2.1** Before beginning construction, the certificate holder shall notify the Department of the identity and qualifications of the major design, engineering and construction contractor(s) for the facility. The certificate holder shall select contractors that have substantial experience in the design, engineering and construction of similar facilities. The certificate holder shall report to the Department any change of major contractors. [Site Certificate Condition 5.1]

**IV.B.2.2** 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. [Site Certificate Condition 5.2]

**IV.B.2.3** During construction, the certificate holder shall have a full-time, on-site assistant construction manager who is qualified in environmental compliance to ensure compliance with all site certificate conditions. The certificate holder shall notify the Department of the name, telephone number, and e-mail address of this person prior to the start of construction and immediately upon any change in the contact information. [Site Certificate Condition 6.1]

**IV.B.2.4** The certificate holder shall obtain all necessary federal, state, and local permits or approvals required for construction, operation, and retirement of the facility or ensure that its contractors obtain the necessary federal, state and local permits or approvals. [Site Certificate Condition 4.6]

**IV.B.2.5** Any matter of non-compliance under the site certificate shall be the responsibility of the certificate holder. Any notice of violation issued under the site certificate shall be issued to the certificate holder. Any civil penalties
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assessed under the site certificate shall be levied on the certificate holder. [Site Certificate Condition 2.11]

IV.B.2.6 Before beginning construction, the certificate holder shall notify the Department in advance of any work on the site that does not meet the definition of "construction" in ORS 469.300 (excluding surveying, exploration, or other activities to define or characterize the site) and shall provide to the Department a description of the work and evidence that its value is less than $250,000. [Site Certificate Condition 5.10]

IV.B.2.7 Within 72 hours after discovery of conditions or circumstances that may violate the terms or conditions of the site certificate, the certificate holder shall report the conditions or circumstances to the Department. [Site Certificate Condition 2.12]

IV.B.2.8 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. [Mandatory Condition OAR 345-027-0020(15)] [Site Certificate Condition 2.10]

IV.B.3 ORGANIZATIONAL EXPERTISE: CONCLUSIONS OF LAW

Based on the foregoing findings, and subject to compliance with the site certificate conditions, the Council finds that LotusWorks has the organizational expertise to construct, operate and retire the proposed facility in compliance with Council standards and conditions of the site certificate and therefore complies with the Organizational Expertise Standard.
IV.C. SOIL PROTECTION [OAR 345-022-0022]

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

IV.C.1 SOIL PROTECTION: FINDINGS OF FACT

The applicant discussed potential soil impacts and its proposed mitigation measures in Exhibit I of the application. The analysis area for the Soil Protection Standard is the area within the site boundary. Construction activities would occur on approximately 182 acres within the site boundary. Of this total area, approximately 100 acres would be temporarily disturbed, and approximately 82 acres would be occupied by permanent facility structures and roads.

Adverse impacts to soils can affect crop production on adjacent agricultural lands, native vegetation, fish and wildlife habitat, and water quality. Construction and operation of the facility could have soil impacts such as erosion, compaction, and chemical spills. Because a wind facility does not have a cooling tower or liquid effluent, there is no potential for salt deposition or land application of liquid effluent. The applicant’s analysis of erosion potential indicates that erosion would be slight to severe, depending on the soil type within the facility site boundary.

Potential Soil Impacts during Construction

Wind and water erosion may occur during construction. Construction would include removal of surface vegetation, and grading and leveling operations. Movement of construction cranes and other heavy equipment would temporarily increase the potential for soil erosion. Installation of underground communications and power collection systems would require trenching that could expose the affected areas to increased erosion risk.

Heavy equipment movement, car and truck traffic and component laydown during construction could cause soil compaction and dust emissions. Soil compaction can reduce agricultural productivity or interfere with revegetation. Dust emissions can adversely affect air quality and wind can cause erosion and rutting of unprotected dirt roads. During construction, there is a risk of chemical spills from fuels, oils, and grease associated with operation of construction vehicles and equipment.

Potential Soil Impacts during Operation

Operation of the facility would have little impact on soils. Precipitation could result in surface water collecting on structures and on concrete or gravel surfaces. Drainage from those areas could erode nearby soils. In addition, repair or maintenance of underground communications or power collection lines could expose soils to increased erosion. Small amounts of chemicals such as lubricating oils and cleaners for the turbines and herbicides for weed control would be used at the facility site and present a risk to soils from accidental spills.

Measures to Mitigate Adverse Impacts to Soil

During construction of the facility, the certificate holder would be subject to the requirements of the National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge General Permit #1200-C and associated Erosion and Sediment Control Plan.
(ESCP).\textsuperscript{70} The Oregon Department of Environmental Quality (DEQ) received the NPDES
permit application on September 1, 2009 and on September 29, 2009 sent a letter to the
Department indicating that the application was “complete with the exception of a site
certification from the Oregon Department of Energy and review and revisions to the Erosion
and Sediment Control Plan if necessary.”\textsuperscript{71} The DEQ reviewer stated that he had reviewed
the ESCP for the Summit Ridge Wind Project and did not anticipate that the plan will require
substantial revision to meet application requirements.\textsuperscript{72}

The applicant proposes to use best management practices to minimize the potential for
erosion. These practices include using sediment fence or other similar forms of containment,
watering to prevent windblown erosion in disturbed areas, and revegetation. To minimize
soil exposure during installation of underground collector lines, only as much open trench
will be excavated and backfilled as can be done in one day, and in no case will a trench
remain open more than seven days. Staging areas are proposed to be stripped and soil
stockpiled before gravel is placed on the laydown areas and the stockpiling will occur during
the time of the year when rainfall is the lowest.\textsuperscript{73}

Where temporary impacts would occur in cultivated areas, the applicant proposes to
salvage and stockpile approximately three feet of top soil in windrows, which will be
protected with plastic sheeting or mulch. Upon removal of temporary features, subsoils
would be cultivated to a depth of at least 12 inches (except where bedrock prohibits achieving
this depth) then salvaged topsoil would be redistributed to match adjacent grades.\textsuperscript{74}

Hazardous materials that might be used on-site during operation include general cleaners,
lubricants, and weed-control substances. Hazardous materials required for construction or
operation of the facility would be used and stored per an internal hazardous materials
program, developed in accordance with federal guidelines. The applicant proposes to locate
spill kits on-site during construction and operation for use in the event of an accidental spill
of hazardous materials.

The applicant proposes to restore the temporarily disturbed areas upon completion of
construction as described in the ESCP and Revegetation and Weed Control Plan (“Weed
Control Plan”).\textsuperscript{75} During review of the preliminary application, the Department received
letters from both the Oregon Department of Fish and Wildlife (ODFW)\textsuperscript{76} and the Wasco
County Weed Department\textsuperscript{77} indicating that the agencies found the Weed Control Plan to be
adequate to address potential impacts during construction and operation of the Summit Ridge
facility. The Weed Control Plan describes the approach and specifications for revegetating
temporarily disturbed areas and controlling the introduction and spread of noxious weeds
throughout the lifetime of the facility. The plan includes a description of the seed mix that
the applicant proposes to use for revegetation activities, the weed monitoring program, and

\textsuperscript{70} An ESCP describes best management practices for erosion and sediment control, spill prevention and
response procedures, regular maintenance for vehicles and equipment, and employee training.

\textsuperscript{71} DEQ Confirmation of Permit Application 1200C Construction Stormwater Permit - Sherman County
(NPDES and ECSP Application Review), September 29, 2009 (SRW-0056)

\textsuperscript{72} A copy of the September 29, 2009 letter from DEQ was included in the final ASC as Attachment I-1.

\textsuperscript{73} Final ASC, Section I.4, p. 4

\textsuperscript{74} Final ASC, Section I.4, p. 3 and I.5, p. 5

\textsuperscript{75} Final ASC, Attachment I-2

\textsuperscript{76} ODFW Draft Revegetation & Weed Control Comment, May 24, 2010 (SRW-0052)

\textsuperscript{77} Wasco County Weed Department Comment, May 21, 2011 (SRW-0050)
the criteria for restoration success. The Draft Revegetation and Weed Control Plan prepared
by the Department (based on the applicant's proposed plan) is included as Exhibit 1 to this
Order.

During construction affecting cultivated land, the applicant proposes to consult with
landowners and implement measures to avoid or reduce disruption of ongoing farming
activities. During operation, the applicant would restore areas temporarily disturbed by
facility maintenance and repair activities using the same methods as described in the ESCP
and Revegetation and Weed Control Plan; and routinely inspect and maintain all roads, pads,
and trenched areas, and maintain or repair erosion and sediment control measures.

Subject to compliance with the site certificate conditions listed below, the Council finds that
the design, construction and operation of the facility as described in Exhibit I of the ASC and
the NPDES 1200-C stormwater permit application are sufficient to minimize impacts on soils
due to compaction, erosion, runoff, and chemical spills, as required by the Soil Protection
standard. The Council also finds that the revegetation program proposed in the Revegetation
and Weed Control Plan included as Exhibit 1 to this Order will provide adequate impact
mitigation where such impacts are unavoidable.

IV.C.2 SOIL PROTECTION: SITE CERTIFICATE CONDITIONS

Based on the review of the information provided in Exhibit I of the ASC and other
evidence in the record, and to ensure compliance with the Soil Protection standard in OAR
345-022-0020, the Council includes the following conditions in the site certificate:

IV.C.2.1 The certificate holder shall conduct all construction work in compliance with an
Erosion and Sediment Control Plan (ESCP) satisfactory to the Oregon
Department of Environmental Quality and as required under the National
Pollutant Discharge Elimination System (NPDES) Storm Water Discharge
General Permit #1200-C. The certificate holder shall include in the ESCP any
procedures necessary to meet local erosion and sediment control requirements
or storm water management requirements. [Site Certificate Condition 9.1]

IV.C.2.2 During construction, the certificate holder shall limit truck traffic to improved
road surfaces to avoid soil compaction and wind erosion on dirt roads, to the
extent practicable. [Site Certificate Condition 9.2]

IV.C.2.3 During construction, the certificate holder shall implement best management
practices to control any dust generated by construction activities, such as
applying water to roads and disturbed soil areas. [Site Certificate Condition 9.3]

IV.C.2.4 The certificate holder shall handle hazardous materials used on the site in a
manner that protects public health, safety and the environment and shall comply
with all applicable local, state and federal environmental laws and regulations.
The certificate holder shall not store diesel fuel or gasoline on the facility site.
[Site Certificate Condition 9.4]

IV.C.2.5 If a spill or release of hazardous material occurs during construction or
operation of the facility, the certificate holder shall notify the Department within
72 hours and shall clean up the spill or release and dispose of any contaminated
soil or other materials according to applicable regulations. The certificate
holder shall make sure that spill kits containing items such as absorbent pads are
located on equipment and at the O&M building. The certificate holder shall
instruct employees about proper handling, storage and cleanup of hazardous
materials. [Site Certificate Condition 9.5]
IV.C.2.6 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 and in compliance with the Revegetation and Weed Control Plan (Exhibit 1 to the Final Order). 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. [Site Certificate Condition 9.6] [Mandatory Condition OAR 345-027-0020(11)]

IV.C.2.7 During facility operation, the certificate holder shall restore areas that are temporarily disturbed during facility maintenance or repair activities using the same methods and monitoring procedures described in the Revegetation and Weed Control Plan. [Site Certificate Condition 9.7]

IV.C.2.8 During facility operation, the certificate holder shall routinely inspect and maintain all transmission line corridors, roads, pads and trenched areas and, as necessary, maintain or repair erosion and sediment control measures and control the introduction and spread of noxious weeds. [Site Certificate Condition 9.8]

IV.C.3. SOIL PROTECTION: CONCLUSIONS OF LAW

Based on the foregoing findings, and subject to compliance with the site certificate conditions, the Council finds that the design, construction and operation of the proposed facility are not likely to result in a significant adverse impact to soils, and therefore the proposed facility complies with the Soil Protection Standard.
IV.D. LAND USE [OAR 345-022-0030]

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

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

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

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

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

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

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

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

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

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

   (c) The following standards are met:

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

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

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

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IV.D.1 LAND USE: FINDINGS OF FACT

Exhibit K of the ASC addresses the Council’s Land Use Standard. The applicant has elected to have the Council make the land use determination under OAR 345-022-0030(2)(b).78

The Council must apply the Land Use Standard set forth in ORS 469.504. The Oregon Supreme Court has held under ORS 469.504(1)(b) and (5), the Council may choose to determine compliance with statewide planning goals by evaluating a facility under paragraph (A) or (B) or (C), but ... it may not combine elements or methods from more than one paragraph, except to the extent that the chosen paragraph itself permits.”79 The applicant has requested that the Council make a determination based on the approval criteria in ORS 469.504(1)(b)(B).

The analysis area of the proposed facility is wholly within the jurisdiction of Wasco County. In accordance with OAR 345-001-0010(2) the analysis area for the Land Use Standard is the area within the site boundary of the proposed facility and extending one-half mile from the perimeter of the site boundary. The energy facility and its related or supporting facilities are proposed to be built entirely on private land (approximately 25,000 acres) for which the applicant has negotiated long-term leases or easements.

All of the land within the analysis area is designated Exclusive Farm Use (EFU) under Wasco County’s acknowledged comprehensive plan and is located in the A1 (160) zoning district. The Council appointed Wasco County as the Special Advisory Group (SAG) on July 31, 2009, for the purpose of identifying the applicable substantive criteria.80 Under ORS 469.504(5), the Council must apply the applicable substantive criteria recommended by the SAG. The Council may find compliance with statewide planning goals under ORS 469.504(1)(b)(B) if the Council finds that the proposed facility “does not comply with one or more of the applicable substantive criteria but does otherwise comply with the applicable statewide planning goals, or that an exception to any applicable statewide planning goal is justified under subsection (2) of this section.” The Oregon Supreme Court has determined that “paragraph (B) necessarily requires an evaluation of the same applicable substantive criteria as paragraph (A) and, to the extent those criteria are not met, directs the council to consider statewide planning goals.”81

On July 14, 2009, the Wasco County Planning Director identified the local land use criteria then in effect that would be applicable to the proposed facility.82 However, after the County Court was appointed as the SAG, before the applicant submitted the Preliminary Application for Site Certificate (pASC), the County amended its applicable land use criteria. The pASC relied on the code provisions, as amended. While the SAG did not recommend applicable substantive criteria after its appointment, it did respond to the Preliminary ASC, and also provided some additional interpretation of its local land use regulations in a letter dated November 14, 2009.83 The final ASC applied the criteria in effect on the date the pASC was filed, and responded to the county’s interpretation and response.

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78 Under OAR 345-021-0010(1)(k), an applicant must elect whether to address the Council’s land use standard by obtaining local land use approvals under ORS 469.504(1)(a) or by obtaining a Council determination under ORS 504(1)(b). The applicant elected to have the Council make the determination (Final ASC, Section K.1).


80 SRW-0074

81 Save Our Rural Oregon, 339 Or at 368.

82 Comments on the Summit Ridge Notice of Intent from the Wasco County Planning Department, July 14, 2009 (SRW-0019)

83 Wasco County Planning Department Comment, November 14, 2009 (SRW-0098)
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The applicable substantive criteria are:

Wasco County Land Use and Development Ordinance (WCLUDO)

Chapter 1 – Introductory Provisions
Section 1.030 (Severability/Legal Parcel Determination)
Section 1.090 (Definitions of Parcel and Structure)

Chapter 3 – Basic Provisions
Section 3.210(B)(7) (Reconstruction or Modification of Roads)
Section 3.210(D)(12) and (13) (Utility Facilities Necessary for Public Service and
Transmission Facilities under 200 Feet in Height)
Section 3.210(E)(8) (Commercial Utility Facility)
Section 3.210(E)(12) (Mining, Crushing or Stockpiling of Mineral Aggregate)
Section 3.210(E)(13) (Processing of Aggregate into Asphalt)
Section 3.210(F)(1), (2), (4), (5) and (7) (Property Development Standards)
Section 3.210(H) (Agricultural Protection)
Section 3.210(J)(8) (Additional Standards for Utility Facilities)
Section 3.210(J)(17) (Additional Standards for Wind Power Generation Facilities)

Chapter 4 – Supplemental Provisions
Section 4.070 (General Exceptions to Building Height Requirements)

Chapter 5 – Conditional Use Review
Section 5.020 (Authorization to Grant or Deny Conditional Uses, and Standards and
Criteria Used)
Section 5.030 (Conditions)
Section 5.040 (Revocation)

Chapter 10 – Fire Safety Standards

Chapter 19 – Standards for Energy Facilities and Commercial Energy Facilities
Section 19.010 (Classification of Energy Facilities)
Section 19.030(B) (A Transmission Facility as a use Permitted Subject to Standards)
Section 19.030(C) (A Wind Facility is a Use Permitted Subject to Standard; Specific
Standards Referenced by F)
Section 19.030(F) (Conditional Use Standards for Wind Facilities)
Section 19.040 (Additional Approval Standards)
Section 19.050 (Conditions of Approval)

Wasco County Comprehensive Plan (WCCP)
Section V – Community Facilities and Services (Parks and Recreation and Scenic Areas
which include Highway 30 & 84 and the Columbia River Gorge

Section XV – Goals and Policies
Goal 1 (Citizen Involvement)
Goal 2 (Land Use Planning)
Goal 3 (Agricultural Lands)
Goal 5 (Open Space, Scenic and Historic Areas and Natural Resources)
Goal 6 (Air, Water and Land Resources Quality)
Goal 8 (Recreational Needs)
Goal 9 (Economy of the State)
Goal 11 (Public Facilities and Services)
Goal 12 (Transportation)
Goal 13 (Energy Conservation)

State Standards

Oregon Revised Statutes
215.275 (Utility Facilities necessary for public service)
215.283 (Uses permitted in exclusive farm use zones)
215.296 (Standards for approval of certain uses in exclusive farm use zones)

Oregon Administrative Rules
660-033-0130(37) (Wind Energy Siting Standards for the Protection of Farmland)

The Council finds that the proposed facility complies with each of the applicable substantive
criteria identified by Wasco County, except for WCLUDO 3.210(F)(1) and 19.030(C)(3) and
(F)(1) with regard to turbine setbacks. With regard to those criteria with which the proposed
facility does not comply, the Council finds that the facility otherwise complies with the applicable
statewide planning goals in accordance with ORS 469.504(1)(b)(B); and that Goals 3 and 13 are
the applicable statewide planning goals applicable to the turbine setbacks.

IV.D.1.a. Wasco County’s Applicable Substantive Criteria
i) WCLUDO Section 1.030: Severability and 1.090: Definitions

Sections 1.030 and 1.090 provide severability provisions and definitions for implementation
of the WCLUDO, and prohibit approval of any development of a parcel that has been partitioned
or developed in violation of the WCLUDO. The applicant has represented that all parcels within
the analysis area are legally created parcels that are not the subject of WCLUDO violations. The
Council finds that these sections do not otherwise provide specific land use requirements for this
application. The Council also finds that, to the extent they provide specific land use
requirements, the proposed facility satisfies these criteria.

WCLUDO Section 3.210: Exclusive Farm Use (A-1) Zone

Section 3.210(B): Uses Permitted Without Review

The following uses may be allowed on lands designated Exclusive Farm Use without review.

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10. Reconstruction or modification of public roads and highways, including the placement of
utility facilities overhead and in the subsurface of public roads and highways along the
public right-of-way, but not including additional travel lanes, where no removal or
displacement of buildings would occur and not resulting in any new land parcels.

The proposed facility may include improvements to some public roads where the
existing road infrastructure is insufficient to accommodate construction equipment travel.
No improvements are proposed to US 197 or other highways, and the proposed
improvements do not require the construction of additional travel lanes, removal or
displacement of any buildings or the creation of any new land parcels.84 The proposed
facility will include construction of some private gravel roads for access to the facility.

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84 Final ASC, Section K.5, p. 10
but this standard does not apply to construction of new private roads. The Council finds
that, as proposed, the road improvements are a use permitted under this standard.

Section 3.210(D). Uses Permitted Subject to Standards

The following uses and activities may be allowed subject to a Type II Review on a legal
parcel designated Exclusive Farm Use subject to subsection F - Property Development
Standards, H - Agricultural Protection, Chapter 10 - Fire Safety Standards, as well as any
other listed, referenced or applicable standards.

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UTILITY/ENERGY FACILITIES

Pursuant to Section 4.070, General Exceptions to Building Height Requirements, these uses
do not require a variance if they exceed 35 feet in height.

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12. Utility facilities “necessary” for public service, including wetland waste treatment
systems, but not including commercial utility facilities for the purpose of generating electrical
power for public use by sale, or transmission towers over 200 feet in height, subject to
Section J(8), Additional Standards below and the applicable provisions of Chapter 20, Site
Plan Review.

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13. A Transmission Facility under 200 feet in height subject to J(8)(a)(1) – (6) below and the
applicable Subject to Standards criteria of Chapter 19.

The proposed facility includes a 230 kV feeder line to connect the facility to the
Bonneville Power Administration (BPA) Big Eddy to Maupin-Redmond transmission
line. This feeder transmission line is proposed to be less than 200 feet in height and
therefore is subject to Section 4.070(13) as well as the standards in Section 3.210(J)(8)
and Chapter 19. Compliance with the requirements of these sections is addressed below.
The remainder of the proposed facility is a commercial utility facility for the purpose of
generating electrical power for public use, which is permitted subject to Conditional Use
requirements addressed below.

Section 3.210(E) Conditional Uses

The following uses and activities may be allowed subject to a Type II or Type III Review on a
legal parcel designated Exclusive Farm Use subject to Subsection F - Property Development
Standards, H - Agricultural Protection, Chapter 5 - Conditional Use Review, Chapter 10 -
Fire Safety Standards as well as any other listed, referenced, or applicable standards.

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ENERGY/UTILITY/SOLID WASTE DISPOSAL FACILITIES

8. Commercial utility facilities (Wind, Hydroelectric or Other) for the purpose of generating
power for public use by sale. This use is subject to the applicable provisions of Chapter 19,
Standards for Energy Facilities and Commercial Energy Facilities and Chapter 20, Site Plan
Review. A wind power generation facility shall also be subject to Section J(17), Additional
Standards below.

The proposed facility and its supporting facilities, with the exception of the
proposed 230 kV feeder line, are considered a commercial utility facility for the purpose
of generating power for public use by sale and are therefore subject to the requirements
of Section 3.210(J)(17) and Chapter 19. Because the applicant has chosen to have the
Council determine land use compliance, Chapter 20, Site Plan Review, is not applicable
to this proposed facility.

MINERAL/AGGREGATE/GEOTHERMAL USES

12. Aggregate: Operations conducted for the mining, crushing or stockpiling of mineral,
aggregate and other subsurface resources subject to Section J(9), Additional Standards
below, Section 3.800, Mineral & Aggregate Overlay and the applicable provisions of Chapter
20, Site Plan Review.

13. Processing, as defined by ORS 517.750, of aggregate into asphalt or Portland cement,
except that asphalt production shall not be permitted within two miles of a producing orchard
or vineyard, which is planted as of the date that the application for asphalt production is
filed, and subject to WCLUDO Section 3.800, Mineral and Aggregate Overlay and the
applicable provisions of Chapter 20, Site Plan Review.

The applicant does not propose new operations for the mining, crushing or
stockpiling of aggregate. The applicant proposes to purchase all necessary aggregate
from local permitted facilities. A temporary batch plant for the processing of concrete
may be placed in one of the proposed laydown areas, and that temporary facility will be
removed when construction is completed. A temporary batch plant is not subject to the
requirements of this section, because the applicant does not propose to process asphalt or
to process aggregate into Portland cement. The Council finds that the proposed facility is
not subject to the requirements of Sections (12) and (13) or the requirements of Chapter
20, Site Plan Review.

Section 3.210(F) Property Development Standards

Property development standards are designed to preserve and protect the character and
integrity of agricultural lands, and minimize potential conflicts between agricultural
operations and adjoining property owners. A variance subject to WCLUDO Chapter 6 or
Chapter 7 may be utilized to alleviate an exceptional or extraordinary circumstance that
would otherwise preclude the parcel from being utilized. A variance to these standards is not
to be used to achieve a preferential siting that could otherwise be achieved by adherence to
these prescribed standards.

1. Setbacks

a. Property Line

(1) All dwellings (farm and non farm) and accessory structures not in conjunction with
farm use, shall comply with the following property line setback requirements:

(a) If adjacent land is being used for perennial or annual crops, the setback shall
be a minimum of 200 feet from the property line.

(b) If adjacent land is being used for grazing, is zoned Exclusive Farm Use and
has never been cultivated or is zoned F-1 or F-2, the setback shall be a minimum of 100
feet from the property line.

(c) If the adjacent land is not in agricultural production and not designated
Exclusive Farm Use, F-1 or F-2, the setback shall be a minimum 25 Feet from the
property line.

85 Final ASC, Section K.5, p. 12
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(d) If any of the setbacks listed above conflict with the Sensitive Wildlife Habitat Overlay the following shall apply and no variance shall be required:

i. The structure shall be set back a minimum of 25 feet from the road right of way or easement;

ii. The structure shall be located within 300 feet of the road right of way or easement pursuant Section 3.920(f)(2), Siting Standards; and

iii. As part of the application the applicant shall document how they are siting the structure(s) to minimize impacts to adjacent agricultural uses to the greatest extent practicable.

All structures associated with the proposed facility are subject to the property line setback standards. All land adjacent to the analysis area is currently being used for grazing and winter wheat production. Therefore, the proposed facility is subject to the 200 foot setback described in subsection (b). With the exception of some transmission lines and poles, all aboveground elements of the proposed facility will be located at least 200 feet from property lines as required by this section. Some of the proposed transmission lines and poles cannot comply with this section due to the linear nature of the transmission lines and the fact that the lines are proposed to cross multiple parcels. Therefore, the Council finds that, with the exception of the transmission lines and poles that cannot be located at least 200 feet from the property line, as proposed the application satisfies this standard. To the extent this standard is not met for those transmission lines and poles that do not meet the 200 foot setback requirement, the application is reviewed below under ORS 469.504(1)(b)(B) for compliance with the applicable statewide planning goals.

No part of the proposed facility site is located within the Sensitive Wildlife Habitat Overlay. Therefore, the Council finds that the requirements of subsection (d) do not apply to this proposed facility.

b. Waterways:

(1) Resource Buffers: All bottoms of foundations of permanent structures, or similar permanent fixtures shall be setback from the high water line or mark, along all streams, lakes, rivers, or wetlands.

(a) A minimum distance of one hundred (100) feet when measured horizontally at a right angle for all waterbodies designated as fish bearing by any federal, state or local inventory.

(b) A minimum distance of fifty (50) feet when measured horizontally at a right angle for all waterbodies designated as non fish bearing by any federal, state or local inventory.

(c) A minimum distance of twenty five (25) feet when measured horizontally at a right angle for all waterbodies (seasonal or permanent) not identified on any federal, state or local inventory.

(d) If the proposal does not meet these standards it shall be subject to Section (a)(3), Additions or Modifications to Existing Structures, above.

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86 Final ASC, Section K.5, p. 13
(e) The following uses are not required to meet the waterway setbacks, however they must be sited, designed and constructed to minimize intrusion into the riparian area to the greatest extent possible:

(i) Fences;
(ii) Streets, roads, and paths;
(iii) Drainage facilities, utilities, and irrigation pumps;
(iv) Water-related and water-dependent uses such as docks and bridges;
(v) Forest practices regulated by the Oregon Forest Practices Act;
(vi) Agricultural activities and farming practices, not including the construction of buildings, structures or impervious surfaces; and
(vii) Replacement of existing structures with structures in the same location that do not disturb additional riparian surface area.

ASC Exhibit J, Section J.1 identifies and includes a study of waterways located within the analysis area. As proposed, no foundations or permanent structures are proposed to be located within 100 feet of any waterways. The proposed 230 kV feeder line is not subject to the setback requirements of this section because it is considered a utility pursuant to subsection (iii). The Council finds that, as proposed, the facility satisfies this standard.

(2) Floodplains: Any development including but not limited to buildings, structures or excavation, proposed within a FEMA designated flood zone, or sited in an area where the Planning Director cannot deem the development reasonably safe from flooding shall be subject to Section 3.740, Flood Hazard Overlay.

The Federal Emergency Management Agency (FEMA) has issued a Flood Insurance Rate Map for Wasco County, which shows that the majority of the County is located in Zone C, Area of Minimal Flooding (FEMA Flood Insurance Rate Map 410229B). Within Wasco County there are small areas that are designated Zone A, 100-Year Floodplain. No development is proposed within those areas. The Council finds that, as proposed, the application satisfies this standard.

c. Irrigation Ditches:

All dwellings and structures shall be located outside of the easement of any irrigation or water district. In the absence of an easement, all dwellings and structures shall be located a minimum of 50 feet from the centerline of irrigation ditches and pipelines which continue past the subject parcel to provide water to other property owners. Substandard setbacks must receive prior approval from the affected irrigation district. These setbacks do not apply to fences and signs.

As proposed, the facility does not include development within 50 feet of the centerline of an irrigation ditch that continues past the subject parcel to provide water to other property owners. The Council finds that, as proposed, the facility satisfies this standard.

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87 Final ASC, Section K.5, p. 14
88 Final ASC, Section K.5, p. 14
89 Final ASC, Section K.5, p. 15
2. Height

Except for those uses allowed by Section 4.070, General Exception to Building Height Requirements, no building or structure shall exceed a height of 35 feet. Height is measured from average grade.

This section applies to those proposed structures that are not subject to the provisions of Section 4.070. Section 4.070 allows energy facilities and commercial energy facilities to be erected above the height limit of the zone in which they are located provided that no usable floor space is constructed in such structures above the stated height limits. None of the structures proposed to exceed the stated height limit, including transmission towers and turbine towers, provide any usable floor space above a height of 35 feet. Therefore, these structures are subject to compliance with Section 4.070.

The proposed Operations and Maintenance (O&M) building is the only structure proposed to provide usable floor space. As proposed, this structure will comprise a single story that will not exceed 35 feet in height.\(^90\) Therefore, the Council finds that, as proposed and subject to compliance with Condition IV.D.2.1\(^91\) to ensure compliance with this height limitation, the O&M building satisfies this standard.

4. Signs

a. Permanent signs shall not project beyond the property line.

b. Signs shall not be illuminated or capable of movement.

c. Permanent signs shall describe only uses permitted and conducted on the property on which the sign is located.

d. Size and Height of Permanent Signs:

(1) Freestanding signs shall be limited to twelve square feet in area and 8 feet in height measured from natural grade.

(2) Signs on buildings are permitted in a ratio of one square foot of sign area to each linear foot of building frontage but in no event shall exceed 32 square feet and shall not project above the building.

e. Number of permanent signs:

(1) Freestanding signs shall be limited to one at the entrance of the property. Up to one additional sign may be placed in each direction of vehicular traffic running parallel to the property if they are more than 750 feet from the entrance of the property.

(2) Signs on buildings shall be limited to one per building and only allowed on buildings conducting the use being advertised.

The only signs proposed are safety signs required by Section 19.030. These signs are not proposed to exceed the size limitations or violate locational requirements established in this section.\(^92\) Therefore, the Council finds that, as proposed, and subject to compliance with Condition IV.D.2.2 to ensure compliance with all signage requirements, the facility satisfies this standard.

\(^90\) Final ASC, Section K.5, p. 15

\(^91\) Recommended site certificate conditions are in Section IV.D.2, unless noted otherwise.

\(^92\) Final ASC, Section K.5, p. 16
5. Lighting

Outdoor lighting shall be sited, limited in intensity, shielded and hooded in a manner that prevents the lighting from projecting onto adjacent properties, roadways and waterways. Shielding and hooding materials shall be composed of nonreflective, opaque materials.

The O&M building site is proposed to be lighted; exterior lighting is proposed to be directed downward to limit glare and light pollution. Turbines and other components of the proposed energy facility are proposed to be lit only as required by the Federal Aviation Administration (FAA). However, in order to satisfy this standard, the exterior lighting must also be shielded and hooded in a manner that prevents the lighting from projecting onto adjacent property. Therefore, the Council finds that as proposed, facility can meet this standard, subject to compliance with Condition IV.D.2.3 which requires that the lighting proposal include provisions to ensure that all exterior lighting be shielded and hooded in compliance with this standard.

7. New Driveways

All new driveways and increases or changes of use for existing driveways which access a public road shall obtain a Road Approach Permit from the appropriate jurisdiction, either the Wasco County Public Works Department or the Oregon Dept. of Transportation.

The proposed facility will take access from existing private roads and no changes to driveways accessing private roads are proposed. Therefore, the Council finds that this standard does not apply to the proposed facility.

Section 3.210(H) Agricultural Protection:

The uses listed in Section D, Uses Allowed Subject to Standards and E, Conditional Uses must meet the following standards:

1. Farm-Forest Management Easement: The landowner is required to sign and record in the deed records for the county a document binding the landowner, and the landowner’s successors in interest, prohibiting them from pursuing a claim for relief or case of action alleging injury from farming or forest practices for which no action or claim is allowed under ORS 30.936 or 30.937.

2. Protection for Generally Accepted Farming and Forestry Practices – Complaint and Mediation Process: The landowner will receive a copy of this document.

The applicant has agreed to execute and record the Farm-Forest Management easement, as required by this standard. The Council finds that this standard can be met, subject to compliance with Condition IV.D.2.4, to ensure execution and recording of the required easement.

Section 3.210(J)(8) Additional Standards; Utility Facilities

a. A utility facility is necessary for public service if the facility must be sited in an exclusive farm use zone in order to provide the service. To demonstrate that a utility facility is necessary, an applicant must show that reasonable alternatives have been considered and

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53 Final ASC, Section K.5, p. 16
54 Final ASC, Section K.5, p. 16
55 Final ASC, Section K.5, p. 17
that the facility must be sited in an exclusive farm use zone due to one or more of the
following factors:

(1) Technical and engineering feasibility;

(2) The proposed facility is locationally dependent. A utility facility is locationally
dependent if it must cross land in one or more areas zoned for exclusive farm use in order to
achieve a reasonably direct route or to meet unique geographical needs that cannot be
satisfied on other lands;

(3) Lack of available urban and nonresource lands;

(4) Availability of existing rights of way;

(5) Public health and safety; and

(6) Other requirements of state and federal agencies.

b. Costs associated with any of the factors listed in a. may be considered, but cost alone
may not be the only consideration in determining that a utility facility is necessary for public
service. Land costs shall not be included when considering alternative locations for
substantially similar utility facilities and the siting of utility facilities that are not
substantially similar.

c. The owner of a utility facility approved under this section shall be responsible for
restoring, as nearly as possible, to its former condition any agricultural land and associated
improvements that are damaged or otherwise disturbed by the siting, maintenance, repair or
reconstruction of the facility. Nothing in this subsection shall prevent the owner of the utility
facility from requiring a bond or other security from a contractor or otherwise imposing on a
contractor the responsibility for restoration.

d. The governing body of the County or its designee shall impose clear and objective
conditions on an application for utility facility siting to mitigate and minimize the impacts of
the proposed facility, if any, on surrounding lands devoted to farm use in order to prevent a
significant change in accepted farm practices or a significant increase in the cost of farm
practices on surrounding farm lands.

WCLUDO Section 3.210(J)(8) directly implements ORS 215.275, which establishes
the statutory criteria for determining whether a utility facility located on Exclusive Farm
Use (EFU) land is “necessary for public service.” These criteria apply to the 230 kV
transmission feeder line that is proposed to serve the facility; the remainder of the
proposal is considered a “Wind Power Generation Facility,” which is subject to the
provisions in Section 3.210(J)(17).

ORS 215.275(2) and WCLUDO Section 3.210(J)(8)(a) include six criteria for
determining whether a utility facility is necessary for public service; a utility facility must
meet at least one of these criteria in order to be considered necessary for public service.
The proposed 230 kV transmission feeder line satisfies four of these criteria.

The majority of land in Wasco County that is located outside of an Urban Growth
Boundary (UGB) is designated EFU. Neither urban nor non-resource land is available to
accommodate the proposed 230 kV transmission feeder line. The principal components
(turbines) and related and supporting facilities (roads, O&M building, and substation) are
proposed to be located on land designated EFU, and in the A-1 zone. The 230 kV
transmission line must be located in the vicinity of the turbine strings and BPA
interconnection point in order to transfer energy to the electrical grid. Alternative urban
or non-resource sites are not available to accommodate these locational needs. Therefore, the facility satisfies Criterion 3 (lack of available urban or non-resource land).

Because the location of the proposed Wind Power Generation Facility on EFU land requires that the transmission feeder line serving such a facility must be located on EFU land as well, the location of the proposed feeder line also satisfies Criterion 1 (technical and engineering feasibility) and 2 (locational dependency) of this section. Finally, the proposed location of the 230 kV feeder line also satisfies Criterion 5 (public health and safety). The facility is proposed to be located away from populated areas, which will minimize the public's exposure to electromagnetic fields. Criteria 4 and 6 do not apply to this proposal.\(^96\) Because the proposed 230 kV transmission feeder line complies with Criteria 1, 2, 3, and 5 of this section, the Council finds that the proposed transmission feeder line satisfies ORS 215.275(2) and WCLUDO 21.310(J)(8a) and can be considered necessary for public service.\(^97\)

ORS 215.275(4) and WCLUDO subsection 3.210(J)(8)(c) require that the owner of a utility facility be responsible for restoring agricultural land and associated improvements that are damaged or disturbed by the siting and maintenance of such a facility. Exhibit W to the Final ASC describes the restoration actions the applicant proposes to comply with these criteria, including backfilling disturbed areas with native soil and returning those areas to original grade.\(^98\) The Council finds that the transmission line, as proposed, can satisfy these criteria, subject to compliance with the restoration actions described in Exhibit W and Condition IV.D.2.5.

ORS 215.275(5) and Section 3.210(J)(8)(d) require that the jurisdictional authority impose clear and objective conditions on an application for utility facility siting to mitigate and minimize the impacts of the proposed facility, if any, on surrounding lands devoted to farm use in order to prevent a significant change in accepted farm practices or a significant increase in the cost of farm practices on surrounding farm lands. The permanent impacts to the EFU (A-1) zone are proposed to encompass approximately 82 acres of the 25,000 acres within the analysis area. The 230 kV transmission feeder line will impact only a portion of those 82 acres.

As explained below with regard to compliance with WCLUDO Sections 5.020(J) and (K), locating the 230kV transmission feeder line on agricultural land will not cause a significant change in accepted farm practices or significantly increase the cost of those practices.\(^99\) Compliance with Conditions IV.D.2.6 and IV.D.2.7 will ensure that the proposed facility, including the transmission lines, will not result in significant changes to accepted farm practices or a significant increase in the cost of farm practices, in compliance with 5.020(J) and (K). The Council finds that, as proposed, and subject to compliance with Conditions IV.D.2.6 and IV.D.2.7, the proposed transmission line can satisfy this criterion.

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\(^96\) Final ASC, Section K.5, pp. 17-18

\(^97\) ORS 215.275(3) and subsection 3.210(J)(8)(b) provide that cost may considered in the decision to locate a utility facility on EFU land, but may not be the only factor. The applicant represents that it did not consider cost, because it determined there are no alternative sites that are not zoned EFU to consider, regardless of cost. See Final ASC, Section K.5, p. 18.

\(^98\) Final ASC, Section K.5, p. 18

\(^99\) Final ASC, Section K.5, pp. 18-19
Section 3.210(J)(17) Wind Power Generation Facility: For purposes of this section a wind power generation facility includes, but is not limited to, the following system components: all wind turbine towers and concrete pads, permanent meteorological towers and wind measurement devices, electrical cable collection systems connecting wind turbine towers with the relevant power substation, new or expanded private roads (whether temporary or permanent) constructed to serve the wind power generation facility, office and operation and maintenance buildings, temporary lay-down areas and all other necessary appurtenances.

The following provisions of WCLUDO Section 3.210(J)(17) directly and fully implement the Land Conservation and Development Commission’s (LCDC’s) 2009 amendments to OAR 660-33-0130 to allow “wind power generation facilities” to be located on agricultural lands without taking an exception to statewide planning goals. With the exception of the 230kV transmission feeder line, the proposed facility and its related and supporting facilities are a “wind power generation facility” for purposes of Section 3.210(J)(17) and OAR 660-033-0130(37).

Section 3.210(J)(17)(a). For high-value farmland soils described in ORS 195.300(10), it must be found that all of the following are satisfied:

(1) Reasonable alternatives have been considered to show that siting the wind power generation facility or component thereof on high-value farmland soils is necessary for the facility or component to function properly or if a road system or turbine string must be placed on such soils to achieve a reasonably direct route considering the following factors:

(a) Technical and engineering feasibility;

(b) Availability of existing rights of way; and

(c) The long term environmental, economic, social and energy consequences of siting the facility or component on alternative sites, as determined under paragraph (2) of this subsection.

ASC Exhibit I includes a soils study that determines that some of the soils on which the proposed facility is located meet the definition of “high value farmland” in ORS 215.710. Because they meet the definition of “high value” in ORS 215.710, those same soils also meet the definition of “high-value farmland” under ORS 195.300(10)(a).

Exhibit I includes evidence that the wind power generation facility (the energy facility and its related or supporting facilities, except the 230 kV transmission line) will impact one soil type that is classified as high value farmland under ORS 215.710(b) and ORS 197.300(10)(a): 12B, Cantala silt loam, 1 to 7 percent slopes. These high value soils constitute approximately 5% of the analysis area, or 1,477 acres. Exhibit I establishes that the facility site does not include soils that qualify as high-value farmland under ORS 195.300(10)(b)-(f).

Exhibit I explains that surficial soils that underlie the proposed facility include primarily Cantala silt loam and Condon silt loam. The high-value farmland soil—12B, Cantala silt loam, 1 to 7 percent slopes—is located primarily along or near the tops of ridges, and is interspersed with other soil types that are not high-value farmland soils. The Cantala silt loam does not qualify as high-value farmland when present on slopes steeper than 7 percent. The Cantala silt loam and Condon silt loam soils are formed in the loess that caps the plateau. The steeper canyon walls are underlain primarily by the
Lickskill and Wrentham-Rock outcrop complex. The story loam soils typically form on slopes and in areas of shallow basalt rock.\textsuperscript{100}

The turbine corridors, which also include connecting roads and the electric collector system, follow the topography of the site. The turbine corridors are located to optimize the capture of the wind energy resource, which requires placing the corridors along or near the tops of ridges and plateaus. That is also the location of the high-value silt loam soils. The specific location of turbines and turbine pads within those corridors will be determined in the micrositing process, which will take into account factors including the wind resource, potential for interference between turbines, topography, and geologic issues that may affect the ability to construct improvements. While substantial areas of the proposed corridors are free of high-value farmland soil, in several areas there is no practical way to avoid impacts to the “12B – Cantala silt loam” soil because it covers much if not all of the area along the top of the ridge.\textsuperscript{101}

The Council finds that, as proposed, reasonable alternatives are not available to avoid all high-value farmland, and that the location of the proposed facility was determined based on technical and engineering feasibility, in compliance with WCLUDO Section 3.210(J)(17)(1)(a).

\textbf{Section 3.210(J)(17)(2)} The long-term environmental, economic, social and energy consequences resulting from the wind power generation facility or any components thereof at the proposed site with measures designed to reduce adverse impacts are not significantly more adverse than would typically result from the same proposal being located on other agricultural lands that do not include high-value farmland soils.

Although the study area includes 1,300-foot corridors that include high-value farmland soils, the long-term impacts to high-value farmland soils will be limited to the area immediately surrounding the turbine pads and to the 20-foot graveled surface of new roads. These areas will be unavailable for cultivation during the operating life of the facility.

Agricultural uses in the area consist of dry land wheat farming and grazing. As discussed above, the high-value farmland soils are interspersed with non-high-value soils, primarily Cantala silt loam and Condon silt loam. In the analysis area, there is no distinction in agriculture practices between the high-value farmland soils and the other soils; moving wind farm improvements from high-value soils to other soils, even if feasible, would remove land from cultivation for the same crop. In addition, the evidence indicates that creating a corridor alignment that facilitates installation of turbines, roads and collector lines with fewer or no impacts to high-value farmland soil would result in greater adverse consequences because it would require diverting the corridors and improvements away from the ridge tops or by making corridors discontinuous where high value farm land is located. Improvements on steeper slopes would be less direct, would increase the miles of roads and collectors, and reduce the number of optimal wind turbine locations.\textsuperscript{102} Therefore, the Council finds that impacts associated with locating the proposed facility on high-value farmland are not significantly greater than the impact of

\textsuperscript{100} Final ASC, Section K.5, p. 21
\textsuperscript{101} Final ASC, Section K.5, p. 21
\textsuperscript{102} Final ASC, Section K.5, p. 22
locating the proposed facility on nearby non-high-value soils, in compliance with WCLUDO Section 3.210(J)(17)(2).

Section 3.210(J)(17)(3) Costs associated with any of the factors listed in paragraph (1) of this subsection may be considered, but costs alone may not be the only consideration in determining that siting any component of a wind power generation facility on high-value farmland soils is necessary.

The applicant acknowledges that the cost of developing a wind power generation facility without impacting high value farm land soils was a factor in determining the proposed locations, and that costs of avoiding non-high value soils would be greater because the development would involve steeper slopes and longer distances, which even if feasible, would be more expensive. However, the evidence indicates that cost was not a primary consideration. Rather, optimal use of the renewable energy resource requires placing turbines and associated access roads and collector lines alone the ridges and plateaus, which is where the high value soils are located.103 The Council finds that, as proposed, the facility satisfies this standard.

Section 3.210(J)(17)(4) The owner of a wind power generation facility approved under Section (a) above shall be responsible for restoring, as nearly as possible, to its former condition any agricultural land and associated improvements that are damaged or otherwise disturbed by the siting, maintenance, repair or reconstruction of the facility. Nothing in this subsection shall prevent the owner of the facility from requiring a bond or other security from a contractor or otherwise imposing on a contractor the responsibility for restoration.

The applicant is responsible for restoring agricultural land to its prior condition following construction and improvement activities. ASC Exhibit W describes the restoration actions the applicant proposes to restore agricultural areas disturbed by the construction of the proposed facility, which include backfilling disturbed areas with native soil and returning those areas to original grade. For example, after the need for staging areas or other construction-related activities ends, the temporarily disturbed areas would be restored to their original contours, topsoil spread in these areas, and the areas revegetated or prepared for planting of wheat or barley, or for use as range land.104 Pursuant to Council rules, the applicant is required to provide financial assurance in the form of a bond or letter of credit in an amount sufficient to restore the property to a useful, non-hazardous condition, and is required, pursuant to OAR 345-027-0020(9) to retire the facility according to the final retirement plan approved by the Council, as described in OAR 345-027-0110. The Department Council finds that, as proposed, and subject to compliance with the conditions discussed in Section IV.F (Retirement and Financial Assurance), the applicant can satisfy this standard. (See mandatory site certificate Conditions IV.F.2.1 [per OAR 345-027-0020(8)], IV.F.2.3 [per OAR 345-027-0020(7)], IV.F.2.4 [per OAR 345-027-0020(9)], and Condition IV.F.2.2.)

Section 3.210(J)(17)(5) The criteria in Section (b), below are satisfied.

103 Final ASC, Section K.5, pp. 22-23
104 Final ASC, Section K.5, p. 23
b. For arable lands, meaning lands that are cultivated or suitable for cultivation, including high-value farmland soils described in ORS 195.300(10), it must be found that:

   (1) The proposed wind power facility will not create unnecessary negative impacts on agricultural operations conducted on the subject property. Negative impacts could include, but are not limited to, the unnecessary construction of roads, dividing a field or multiple fields in such a way that creates small or isolated pieces of property that are more difficult to farm, and placing wind farm components such as meteorological towers on lands in a manner that could disrupt common and accepted farming practices; and

   The facility site is comprised of arable lands, which are being used primarily for the cultivation of dry-land wheat and grazing; therefore the requirements of this section apply to the proposed facility. The applicant proposes to construct roads only as necessary to provide access to and along the turbine corridors; existing roads will be used where feasible. Separate “crane paths” would not be used during facility construction. Instead, the access road system would be used, with 10-foot shoulders temporarily provided on either side of the 20-foot gravel access roads during facility construction. Impacts to agricultural operations would be minimized by avoiding construction of improvements that could interfere with the passage of large farm equipment, such as overhead transmission lines, except where site-specific conditions require they be above-ground. As proposed, any above-ground collector lines placed through or around cultivated fields or farm roads would have sufficient ground clearance to avoid blocking or interfering with farm equipment. The Council finds that, as proposed, and subject to compliance with Conditions IV.D.2.6 and IV.D.2.7 to ensure the facility is designed to reduce adverse impacts on farming practices and minimize the use of agricultural land, the facility can satisfy this standard.

   (2) The presence of a proposed wind power facility will not result in unnecessary soil erosion or loss that could limit agricultural productivity on the subject property. This provision may be satisfied by the submittal and county approval of a soil and erosion control plan prepared by an adequately qualified individual, showing how unnecessary soil erosion will be avoided or remedied and how topsoil will be stripped, stockpiled and clearly marked. The approved plan shall be attached to the decision as a condition of approval; and

   Soil erosion will be prevented or mitigated as provided in the National Pollutant Discharge Elimination System (NPDES) 1200-C permit and associated Erosion and Sediment Control Plan (ESCP), which satisfy the requirement for a soil and erosion control plan. The Council finds that, subject to compliance with these permit and plan requirements and with Condition IV.C.2.1 (See Section IV.C, Soil Protection) which requires the permit and plan, the facility, as proposed, can satisfy this standard.

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

   In order to ensure construction, maintenance and retirement activities do not result in unnecessary soil compaction, the applicant proposes that construction access utilize both

105 Final ASC, Section K.5, pp. 23-24
106 Final ASC, Section K.5, p. 23. See also discussion in Order Section IV.C, Soil Protection.
existing and new roads. No separate crane paths are proposed. ASC Exhibit I, Sections
I.4 (identification and assessment of impacts to soils) and I.5 (Description of Proposed
Mitigation Measures) address the potential for soil compaction that could reduce the
productivity of soil for crop production. Exhibit W addresses retirement of the facility,
and includes removal of turbines and any roads not wanted by the landowner. Turbine
pads will be removed to a depth of three feet below grade. Soils will be restored to
farmable condition in areas that will be under cultivation.\footnote{107}

The specific details of soil restoration during the retirement of the facility will be
addressed in the final retirement plan, which must be reviewed and approved by the
Council following public comment. The Council finds that subject to compliance with
Conditions IV.C.2.1 (requiring an Erosion and Sediment Control Plan), IV.C.2.2(
limiting traffic to improved road surfaces to minimize soil compaction), IV.C.2.6
(requiring restoration of temporarily disturbed areas immediately upon completion of
construction), IV.F.2.3 (prevention of conditions that would preclude site restoration) and
IV.D.2.5 (requiring restoration of agricultural land upon retirement), the facility, as
proposed, can satisfy this standard.

(4) Construction or maintenance activities will not result in the unabated introduction or
spread of noxious weeds and other undesirable weeds species. This provision may be
satisfied by the submittal and county approval of a weed control plan prepared by an
adequately qualified individual that includes a long-term maintenance agreement. The
approved plan shall be attached to the decision as a condition of approval.

In order to control weeds and avoid the introduction of noxious weeds and other
undesirable weed species, the ASC proposes development and implementation of a weed
control program in consultation with the Oregon Department of Fish and Wildlife
(ODFW) and Wasco County Weed Department; this program is described in the draft
Revegetation and Weed Control Plan which is attached as Exhibit 1 to this Order, and
discussed in Section IV.C (Soil Protection) and IV.G (Fish and Wildlife Habitat). The
Council finds that, subject to compliance with Condition IV.D.2.8 (requiring Wasco
County approval of the Revegetation and Weed Control Plan prior to the start of
construction) and Conditions IV.C.2.6, IV.C.2.7, and IV.C.2.8 (requiring implementation
of the activities described in the Revegetation and Weed Control Plan during
construction, operations, and retirement of the facility—see Section IV.C, Soil
Protection), the facility can meet this standard.

c. For nonarable lands, meaning lands that are not suitable for cultivation, it must be
found that the requirements of Subsection (b)(4) above are satisfied.

d. In the event that a wind power generation facility is proposed on a combination of
arable and nonarable lands as described in Sections (b) and (c) above, the approval criteria
of Section (b) shall apply to the entire project.

The facility site consists of both arable and nonarable lands; therefore the
requirements of Section 3.210(J)(17)(b) apply to the entire proposed facility.

\footnote{107}{Final ASC, Section K.5, pp. 23-24}
erected above the height limits of the zone in which they are located provided no usable floor space is provided in such structures above the required height limits. Transmission towers over 200 feet in height require a Conditional Use Permit.

The O&M building is only structure proposed to be constructed with usable floor space to serve the facility. It is proposed to be a single-story structure and will not exceed 35 feet in height. The facility’s other structural components are exempt from the height standards because no usable floor space is proposed. Transmission towers are proposed to be approximately 70 feet high, below the 200-foot height threshold for conditional use permit requirement. The Council finds that, as proposed, the facility will satisfy this standard.

WCLUDO Chapter 5: Conditional Use Review

Section 5.020 Authorization to Grant or Deny Conditional Uses, and Standards and Criteria Used

Conditional uses listed in this Ordinance shall be permitted, enlarged or otherwise altered or denied upon authorization by Administrative Action in accordance with the procedures set forth in Chapter 2 of this Ordinance. In judging whether or not a conditional use proposal shall be approved or denied, the Administrative Authority shall weigh the proposal’s appropriateness and desirability or the public convenience or necessity to be served against any adverse conditions that would result from authorizing the particular development at the location proposed, and to approve such use, shall find that the following criteria are either met, can be met by observance of conditions, or are not applicable.

With the exception of the 230 kV transmission feeder line (permitted subject to standards) and improvements to existing public roads (permitted without review), all components of the facility are subject to these conditional use criteria.

Section 5.020(A) The proposal is consistent with the goals and objectives of the Comprehensive Plan and implementing Ordinances of the County.

The applicable Wasco County Comprehensive Plan (WCCP) provisions are evaluated below. Consistency with the County’s implementing ordinances is evaluated throughout this section.

Section 5.020(B) Taking into account location, size, design and operational characteristics of the proposed use, the proposal is compatible with the surrounding area and development of abutting properties by outright permitted uses.

The proposed facility will require approximately 82 acres of land to be permanently removed from farm use, totaling approximately 1.3 percent of the total site boundary. No forest operations occur in the vicinity of the facility.

As proposed, the facility will result in little to no impact to existing agricultural operations abutting it and minimal impact on existing agricultural operations affected by the facility, and will not materially alter the stability of the area’s existing land use pattern. Adjacent uses are primarily dry land crop cultivation and grazing. Local farmers will be able to maneuver around the turbine strings and transmission towers and across the gravel access roads, although minor changes in sowing and harvesting patterns in the

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108 Final ASC, Section K.5, p. 25
immediate vicinity of the strings will be necessary. Since the farming in the area is dry land farming, irrigation patterns will not be affected.\textsuperscript{109}

The analysis area is sparsely populated and there are few residences. The most likely impacts to residents will be visual and noise-related. ASC Exhibit R describes the visibility of the facility components, in varying degrees, near the facility. However, the visibility of the components will not be incompatible with or interfere with permitted uses on abutting properties. Exhibit X includes a noise analysis, which concludes that, as proposed, the construction and operation of the facility will meet all Department of Environmental Quality (DEQ) noise regulations, with all receptors complying with the 50 dBA noise limit.\textsuperscript{110} Compliance of the proposed facility with the noise regulations is discussed in Section VI.A, Noise Control Regulations.

In its February 24, 2001 comments,\textsuperscript{111} the Friends of the Columbia Gorge (FOCG) asserts that the Deschutes Wild and Scenic River Area and the Deschutes River State Recreation Area are immediately adjacent to the project site and, therefore, are part of the “surrounding area” for which compatibility must be evaluated under this standard. FOCG further asserts that to comply with this county standard, the Order “must provide specific analysis of whether the project would be compatible with these areas” and that it “must analyze whether the Summit Ridge project would be compatible with the designated ORV’s [outstanding regional values] for the Lower Deschutes Wild and Scenic River.”

FOCG does not explain or establish how ORV’s, which relate to management standards for federal lands, apply to or are subject to evaluation under this county standard for a proposed facility that is not located on federal land. The County explains that the proposed facility includes no project elements located within either of these designated areas. Additionally, no properties abutting the analysis area are developed with permitted uses that would be incompatible with the proposed facility. FOCG’s comments do not provide evidence to refute the conclusion that the location, size, design and operational characteristics of the proposed facility would be incompatible with the area surrounding the facility or development of abutting properties by permitted uses.

When the turbine model has been selected and the precise turbine layout has been determined, but before construction of any facility components, the applicant must submit a final acoustical analysis to the Department for review and approval. The applicant must also submit evidence that it has secured noise easements (if required) for any noise-sensitive properties identified by the pre-construction analysis. The Council finds that subject to compliance with Conditions VI.A.2.1 and VI.A.2.2 requiring submittal of a final acoustical analysis and evidence that noise easements have been obtained, the proposed facility can satisfy this standard.

\textbf{Section 5.020(C)} The proposed use will not exceed or significantly burden public facilities and services available to the area, including, but not limited to: roads, fire and police protection, sewer and water facilities, telephone and electrical service, or solid waste disposal facilities.

\textsuperscript{109} Final ASC, Section K.5, p. 26  
\textsuperscript{110} Final ASC, Section X.2.2, p. 4  
\textsuperscript{111} SRW-0133
As proposed, the facility will not have an adverse impact on public facilities in
Wasco County. ASC Exhibit U identifies public services and utility providers within a
30-mile radius of the facility for information on existing conditions and potential
significant adverse impacts on their ability to provide service. The applicant provided
comments from the City of The Dalles Public Works Department, the City of Dufur Fire
and Ambulance Service, and the Wasco County Sheriff. in Exhibit U of the ASC. The
City of Dufur Fire and Ambulance Service, which would be the first responder in the
event of an emergency, stated that it does not have the training or equipment for rope
rescue operations. The applicant proposes several measures, identified in Exhibit U, to
address this need and to reduce the potential for fires related to the facility.

The proposed facility will use several public roads during the facility's construction
and operation and, where necessary, will improve the roadbed of public roads to
accommodate construction equipment; these improvements may benefit the community
long-term. An improved road system may also provide better access for emergency
vehicles in the event an accident occurs.

Construction traffic is proposed to use US 197 to connect to local Wasco County
roads to access private land where the construction staging areas and turbine strings will
be located. County-designated rural collectors may also be used for access into northern
and southern portions of the analysis area. Local roads are generally gravel rural
roadways with little traffic other than local agricultural and residential traffic. The
facility will require construction of approximately 19 miles of new access roads and
renovation or improvement of approximately six miles of existing public roads. Existing
unpaved roads within the facility boundary will be utilized to reduce the need for new
road construction. Where needed, the existing road will be temporarily improved to a
total width of 40 feet, including a 20-foot wide gravel surface and two 10-foot compacted
shoulders.

After completion of construction, the applicant proposes to remove the temporary
road shoulders and restore the roads to pre-existing conditions. The 20-foot graveled
surface will be left to facilitate facility operations. All areas temporarily disturbed during
construction will be restored to their existing condition. In areas where there are no
existing roads to access wind turbine strings or proposed facilities, new roads will be
constructed to the same dimensions. Construction-related traffic may cause short-term
delays during large component deliveries. Delays will be temporary, with minimal
impact. During operation, the facility will employ fewer than 25 people and, therefore,
will contribute little traffic to the local road system.

Subject to compliance with the fire mitigation measures identified in Section IV.K
(Public Health and Safety Standards) and Section V.C (Public Services), the Council
finds that the facility, as proposed, will not exceed or significantly burden public facilities
and services available to the area, in compliance with this criterion.

Section 5.020(D) The proposed use will not unduly impair traffic flow or safety in the area.

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112 Final ASC, Table U-2  
113 Final ASC, Attachments U-1, U-2, and U-3  
114 Final ASC, Attachment U-3  
115 Final ASC, Section U.5.12, pp. 26-27  
116 Final ASC, Section U.5.7, p. 25
During construction of the proposed facility, construction-related traffic, particularly large component deliveries, may cause some short-term delays on public roads. Delays will be temporary in nature and, given that the existing traffic on most roads in the vicinity of the proposed facility is generally limited to area residences and farmers, impacts related to construction will be minimal. During operation, the proposed facility will employ fewer than 25 people and will contribute very little traffic to the local road system. Following construction, the proposed road bed improvements may improve traffic safety.\footnote{117} The Department finds that, as proposed, the facility satisfies this criterion.

Section 5.020(F) The effects of noise, dust and odor will be minimized during all phases of development and operation for the protection of adjoining properties.

Noise and dust are the primary effects produced by construction and operation of a wind power generation facility; the facility will not generate any odors.

As discussed previously, when the turbine model has been selected and the precise turbine layout has been determined, and before construction of any facility components, the applicant must submit a final acoustical analysis to the Department for review and approval. The applicant must also submit evidence that it has secured noise easements (if required) for any noise-sensitive properties identified by the pre-construction analysis. [See Conditions VI.A.2.1 and VI.A.2.2 in Section VI.A (Noise Control Regulations) requiring submittal of a final acoustical analysis and evidence that noise easements have been obtained.]

With regard to dust generation, the applicant proposes to obtain an NPDES Stormwater 1206-C Permit, which requires the development and implementation of an erosion and sediment control plan (ESCP) and the use of best management practices to minimize the potential for erosion, including windblown erosion. Best management practices include using hay bales or other similar forms of containment, watering to prevent windblown erosion in disturbed areas, covering of stockpiled soil, and immediate revegetation. Best available practices will be implemented to prevent weed infestation and erosion of the stockpiled soils, developed in consultation with the landowners and the local weed control authority.

The Council finds that, subject to compliance with site certificate conditions in Section VI.A.2 regarding compliance with Noise Control Regulations and in Section IV.C.2 regarding Soil Protection, the effects of noise and dust will be minimized, in compliance with this criterion.

Section 5.020(F) The proposed use will not significantly reduce or impair sensitive wildlife habitat, riparian vegetation along streambanks and will not subject areas to excessive soil erosion.

As proposed, the facility has been located to avoid impacting streambank areas or other areas of riparian vegetation. Exhibits P and Q of the ASC identify specific fish and wildlife resources, including state and federally listed species in the area, and any potential impacts to those resources. Those exhibits establish that the facility is not expected to significantly affect any listed endangered or threatened species or adversely affect fish and wildlife species or habitat.

\footnote{117} Final ASC, Section K.5, p. 28
Exhibit P identifies and categorizes all fish and wildlife habitats within the habitat analysis area. No Category 1 habitat has been identified in the analysis area. The bulk of the habitat within the analysis area is identified as Categories 3, 4, and 6. The majority of permanent impacts would be to Category 6—developed land, accounting for approximately 50 percent of the permanently affected habitat. Temporary impacts will occur primarily on Category 6 habitat, accounting for approximately 52 percent of the temporary impact to habitat areas. Exhibit P included a monitoring plan to be developed in coordination with ODFW to evaluate actual impacts generated by the proposed facility. The information presented in Exhibit P formed the basis for the Wildlife Monitoring and Mitigation Plan and Habitat Monitoring Plan developed by the Department and included as Exhibits 2 and 3, respectively, to this Final Order.

Exhibit J identifies six wetlands in the study area. The facility has been designed to avoid all wetlands features, and no impacts are expected occur to any wetland or jurisdictional water resources. As previously discussed, the applicant proposes to obtain an NPDES permit (1200-C) that will limit erosion by applying best management practices to reduce erosion potential. The Council finds that, subject to compliance with the conditions imposed to ensure compliance with the mitigation measures identified in Exhibits J, P and Q and Condition IV.C.2.1 (requiring NPDES permit), the proposed facility will not significantly reduce or impair sensitive wildlife habitat, riparian vegetation along stream banks and will not subject boundary areas to excessive soil erosion, in compliance with this criterion.

Section 5.020(G) The proposed use will not adversely affect the air, water, or land resource quality of the area.

The facility will have little impact to air, water and land resources. As proposed, the facility will not create a new pollution source, and, as previously discussed, traffic associated with the proposed facility will be minimal. The proposed facility will not significantly increase the amount of exposed soils in the site area and will have little or no impact to air quality. As explained in Exhibit P, any soils exposed during construction will be revegetated to prevent soil erosion from wind and rain.

All construction of the facility will be conducted pursuant to a DEQ issued NPDES (1200-C) Permit, which requires best management practices to minimize the potential for erosion. Temporary impacts to land within the analysis area will occur with the creation of the staging areas and excavation for underground collector lines. To minimize soil exposure during installation of the collector lines, and as provided for in the required NPDES permit, only as much trench will be opened each day as can be excavated and backfilled; in no case will a trench remain open for more than the seven days.

Establishment of the staging areas will include stripping and temporarily stockpiling topsoil before placing gravel on the laydown areas. In actively farmed areas, the wheat crop will protect the stockpiles from wind erosion. In other areas, hay bales or other similar containment features will be used during construction of the proposed facility. As needed, water from water trucks will be sprayed on disturbed areas to keep wind-borne erosion losses to a minimum. After the need for the staging areas ends, the staging area locations will be brought back to their original contours, topsoil spread in these areas, and

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118 Final ASC, Section P.9, p. 39
119 Final ASC, Section P.8, pp. 37-38
120 Final ASC, Section K.5, p. 30
the areas revegetated or prepared for planting of wheat or barley, or for use as range land.\textsuperscript{121}

The proposed Operations and Maintenance (O&M) building will have an exempt on-site well producing less than 5,000 gallons per day. Wastewater generated on-site will be limited to the O&M building, which will be connected to a DEQ approved on-site septic system. The only wastewater generated during construction will be from washdown of concrete trucks after concrete loads have been emptied. Washdown will be done by the contractor and will occur either at a temporary batch plant located in a proposed staging area where washdown water will infiltrate into the ground, or at an off-site, contractor-owned batch plant. No industrial wastewater will be generated during operations.\textsuperscript{122}

As discussed above, there are no expected impacts to wetlands or other water sources due to the proposed design of the facility.

Permanent impacts to land resources will be limited to the impacts associated with construction of the facility that will affect approximately 82 acres of A-1 zoned, EFU land. The amount of land used for the proposed facility is a very small percent of land within the analysis area (less than 0.3 percent); and project facilities will be located in a fashion that minimizes impacts to existing farming operations. The applicant contacted landowners and Natural Resources Conservation Service (NRCS) staff to identify any potential impact to existing land uses related to the proposed facility. Landowners did not identify any significant concerns or adverse impacts to their use of the land for their agricultural operations. NRCS staff identified weeds as a potential concern.\textsuperscript{123} As discussed in Section IV.C.1 (Soil Protection), the applicant prepared a Revegetation and Weed Control Plan to address the requirements of the Soil Protection standard.

Subject to compliance with the Condition IV.C.2.1 (requiring NPDES permit) and IV.D.2.8 (requiring the certificate holder to obtain Wasco County approval of the final Weed Control Plan prior to the start of construction), the Council finds that the proposed facility can be constructed in a manner that will not adversely affect the air, water or land resource quality of the area, in compliance with this criterion.

Section 5.020(II) The location and design of the site and structures for the proposed use will not significantly detract from the visual character of the area.

ASC Exhibit R describes the potential impacts to the scenic and aesthetic resources in the vicinity of the Facility, and Exhibit T describes the potential impact to recreational opportunity areas. The Wasco County Comprehensive Plan also identifies the Columbia River Gorge National Scenic Area (CRGNSA) and the Deschutes River State Recreation Area (DRSRA) as outstanding scenic and recreation areas, and Interstate Highway 84 (I-84) as a scenic corridor. Exhibit R states that the facility components would not be visible from I-84. No part of the proposed facility is located within the boundaries of either the CRGNSA or the DRSRA. Portions of turbines may be marginally visible from some locations within the CRGNSA, but public access to these locations is limited, resulting in minimal impact. Portions of turbines will be intermittently visible along the

\textsuperscript{121} Final ASC, Section K.5, p. 30
\textsuperscript{122} Final ASC, Section K.5, p. 30
\textsuperscript{123} Final ASC, Section K.5, p. 31
Deschutes River and associated hiking and multi-use trails, but will not dominate views.\textsuperscript{124}

FOCG asserts that the “appropriate metric for evaluating this impact is the BLM’s Visual Resource management system and BLM VQO’s [Visual Quality Objectives] and ORVs [Outstandingly Remarkable Values] for the Lower Deschutes Wild and Scenic River. Using these measuring sticks to evaluate impacts, it is likely that the project would detract from the visual character of the area.”\textsuperscript{125} As discussed above, no portion of the facility site is proposed to be located on federal land. FOOG does not explain or establish how BLM’s standards are relevant to or are the “appropriate metric” to evaluate compliance with this local standard for land not located on property subject to BLM’s jurisdiction. The County does not otherwise employ this standard, nor has it indicated that this standard would be appropriate in this case. As the county explains, WCLUDO 5.020(H) “does not require that there be no visual impact from the energy facility, but that any impact not be significant.” The county further explains, that “since none of the proposed structures occur within the Lower Deschutes River Wild and Scenic River or the Deschutes River Recreation Lands, no further analysis is required.”

The Council finds that, as proposed, and due to the placement and limited visibility of turbines, the facility will not significantly detract from the visual character of the area, in compliance with this criterion.

Section 5.020(I) The proposal will preserve areas of historic value, natural or cultural significance, including archaeological sites, or assets of particular interest to the community.

Exhibit S of ASC describes existing cultural and historic resources in the analysis area and any potential impacts associated with construction of the proposed facility. There are no historic or cultural resources listed on the National Register of Historic Places (NRHP) within the analysis area. During the archaeological survey for the proposed facility, 19 prehistoric archaeological sites, one historic archaeological site, 30 isolated finds, and five historic buildings were documented. Fourteen of the prehistoric archaeological sites are significant and possibly eligible for listing on the NRHP. One historic building, the Center Ridge Schoolhouse, is possibly eligible for NRHP listing.\textsuperscript{126}

The facility is proposed to be located to avoid all of these sites. A 100-foot avoidance buffer is proposed around the lithic scatter sites, and a 200-foot avoidance buffer around all rock features. This buffer has required a slight relocation of wind turbines and modification to the access road layout from the original design. This modification is proposed to be accomplished within the 400-foot wide transmission corridor that was surveyed and the 1300 foot wide turbine string corridor. The buffer zones around each site will be flagged/barricaded to prevent disturbance during construction. The proposed facility has been designed to avoid impacts to cultural resources. The applicant also proposes a monitoring program in the event of exposure of unanticipated and currently unidentified cultural properties that may be exposed during construction or known sites that maybe in inadvertently affected notwithstanding precautions for avoidance.\textsuperscript{127}

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\textsuperscript{124} Final ASC, Section R.5.3.2, pp. 8-9
\textsuperscript{125} SRW-0133
\textsuperscript{126} Final ASC, Section S.1, p. 1
\textsuperscript{127} Final ASC, Attachment S-1
\end{flushright}
SUMMIT RIDGE WIND FARM
FINAL ORDER

Section V.B of this Order discusses in more detail the protection of historic, cultural and archaeological resources and site certificate conditions that require the certificate holder to: 1) protect identified cultural sites with buffers during construction and operations, 2) provide training to construction and operations personnel related to protection of these sites, 3) conduct additional surveys as needed if construction activities are to occur outside of previously surveyed areas, and 4) implement an Archaeological Monitoring Plan to address protection of the resources (see Section V.B.2 for site certificate conditions).

Subject to compliance with the conditions described in Section V.B.2 (Historic, Cultural and Archaeological Resources), including the proposed relocation of wind turbines and modification to the access road layout, the Council finds that the facility will preserve areas of historic value and natural or cultural significance, in compliance with this criterion.

Section 5.020(f) The proposed use will not significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to or available for farm and forest use.

The proposed facility is located in an area where the predominant land uses are winter wheat cultivation and grazing. There are no forest operations in the analysis area. Construction of the proposed facility is not anticipated to substantially increase the cost of farming and grazing operations because the facility components, such as the turbines and access roads, will be located to limit, to the greatest degree practicable, changes in planting and harvesting patterns. There will be minimal impacts to grazing operations because cattle will be able to roam freely around the turbines located in the fields. The applicant has also provided a farmer survey that requested information on whether the proposed facility would have an impact on their operations. The majority of local farmers responded that they will be able to maneuver around the turbine strings and transmission towers and across the gravel access roads, although minor changes in sowing and harvesting patterns in the immediate vicinity of the strings will be necessary.  

The proposed facility is also not anticipated to increase the cost of accepted farming practices on surrounding lands outside of the analysis area because no construction will occur on those sites, and operation of the facility will not impact farm practices on surrounding land. However, as previously discussed in the section above regarding compliance with WCLUDO Section 3.210(j)(17)(5), the Council includes Conditions IV.D.2.6 and IV.D.2.7, which require ongoing consultation with affected landowners to implement measures to avoid adverse impacts to farm practices and that the certificate holder to design and construct the facility to minimize disturbance to farming activities. The Council finds that, subject to compliance with Conditions IV.D.2.6 and IV.D.2.7, and as proposed, the facility satisfies this criterion.

Section 5.020(k) The proposed use will not force a significant change in accepted farm or forest practices on surrounding lands devoted to or available for farm or forest use.

Construction and operation of the facility will be compatible with existing farming and grazing operations and will not significantly alter accepted farming practices. Some minor changes in sowing and harvesting patterns in the immediate vicinity of the turbines strings will likely be necessary, but those affected farmers will be able to maneuver around the turbine strings and transmission towers and across the gravel access roads. In

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128 Final ASC, Section K.5, pp. 32-33
addition, gravel access roads will be available for the farmers to use to move equipment, which they identified as a critical component in how they manage their land. Very little land will be removed from production, accounting for 0.3 percent of the analysis area, and no irrigation patterns will be affected due to the nature of farming operations in the area. The proposed facility will not impact any forest practices because there are no forest operations in the vicinity of the facility.\textsuperscript{129}

As previously discussed with regard to compliance with WCLUDO Section 3.210(J)(17)(5) and Section 5.020(J), the Council includes Conditions IV.D.2.6 and IV.D.2.7, requiring ongoing consultation with affected landowners to implement measures to avoid adverse impacts to farm practices and requiring the certificate holder to design and construct the facility to minimize disturbance to farming activities. In addition to Conditions IV.D.2.6 and IV.D.2.7, with respect to the findings above regarding compliance with WCLUDO Section 3.210(J)(8), the Council applies Condition IV.D.2.5 (requiring restoration of agricultural land on the site). The Council finds that, subject to compliance with Conditions IV.D.2.5, IV.D.2.6, and IV.D.2.7, the facility satisfies this criterion.

\textit{WCLUDO Section 5.030 – Conditions, and Section 5.040 – Revocation of Conditional Use Permit}

WCLUDO Sections 5.030 and 5.040 provide the county’s authority to revoke a Conditional Use Permit in the event an applicant fails to satisfy requirements and conditions of approval. The applicant has elected to pursue Council rather than County approval, and therefore the county’s revocation authority does not apply. Rather, as the certificate holder, the applicant is bound by the requirements and conditions of the Site Certificate.

\textit{WCLUDO Chapter 10 : Fire Safety Standards}

The Wasco County Planning Department has determined that the substation, and not the other facility components, must comply with the County’s Fire Safety Standards, and that the means to comply with these provisions is to provide a fire protection plan for the facility. Exhibit U of the ASC includes a fire prevention plan, which includes measures to minimize potential for fires, and outlines coordination procedures between the applicant and the Columbia Rural Fire District, Dufur Fire, and the Bureau of Land Management (BLM), which are the primary fire and emergency service providers in the area. Exhibit U outlines the training, fire prevention equipment and facility information for service providers in order to minimize fire potential.\textsuperscript{130}

In addition, as outlined in Exhibit U, the wind turbines will be equipped to shut down automatically before mechanical problems create excess heat or sparks. Each wind turbine generator and pad-mounted transformer will be constructed with a concrete pad around each base, with a minimum of 15 feet of nonflammable groundcover on all sides (Condition V.C.2.8). The use of underground power collector cables, which will be used where practicable, substantially reduces the risk of fire from short circuits caused by wildlfe or lightning. Each maintenance truck will also carry a fire extinguisher to respond to any fires that might be sparked.\textsuperscript{131} The Council finds that the facility (as proposed) and subject to compliance with the conditions discussed in Section IV.K (Public Health and Safety Standards) and Section V.C (Public Services), the facility satisfies the County’s Fire Safety Standards.

\textsuperscript{129} Final ASC, Section K.5, p. 32
\textsuperscript{130} Final ASC, Section U.5.12, p. 27
\textsuperscript{131} Final ASC, Section U.5.12, p. 27
WCLUDIO Chapter 19: Standards for Energy Facilities and Commercial Energy Facilities

WCLUDIO Section 19.010 Classification of Energy Facilities

A. Permitted Subject to Standards. A proposed energy facility shall be approved by the Planning Director as a use permitted subject to standards if the proposed facility complies with the applicable standards of subsection 19.030 (A) through (C) and section 19.040, subject to the applicable conditions of section 19.050.

B. Conditional Use. A proposed energy facility that is not permitted subject to standards may be approved by the Planning Commission as a conditional use if the proposed facility complies with the applicable standards of subsection 19.030 (D) through (F) and section 19.040, subject to the conditions of section 19.050 and other conditions found necessary to fulfill the purpose of this chapter.

The 230 kV transmission feeder line is “Permitted Subject to Standards” pursuant to Section 19.010(A). Section 19.030(B) provides the relevant standards for the 230 kV transmission feeder line, which is subject to:

Section 19.030(B)(1) or (B)(2) and (B)(3);
Section 19.040(A)(1) through (3) except as permitted by Section 10.040(A)(4);
Section 19.040(B) and (C); and
The applicable conditions of Section 19.050.

The remainder of the facility, excluding the improvements to existing public roads, is permitted as a “Conditional Use” pursuant to Section 19.010(B). Section 19.030(F) provides the relevant conditional use standards for wind facilities. Pursuant to Section 19.030(F), the facility is subject to:

Section 19.030(C)(3)(a) and (b);
Section 19.030(C)(4)(b);
Section 19.030(C)(5) through C(8);
Section 19.030(F)(1) through F(6);
Section 19.040; and
The applicable conditions of Section 19.050.

The facility’s compliance with each of these provisions is established as follows:

WCLUDIO Section 19.030 Standards for Approval

Section 19.030(B). A Transmission Facility as a use Permitted Subject to Standards. A transmission facility is a use permitted subject to standards if it complies with part 19.030(B)(1) or with parts (B)(2) and (B)(3), and the applicable conditions of section 19.050.

1. Location and Height.

   a. The facility shall comply with subsections 19.040(B) and (C), and

   b. The facility shall result in clearing of a right-of-way or easement with an average width not greater than 50 feet in the F-F and F-1 zones, or

   c. The facility shall not increase the extent to which the right-of-way or easement is in an area listed in parts 19.040(A)(1) through (3), except as permitted by part 19.040(A)(4).

   d. The facility is less than 200 feet.
The proposed 230 kV transmission feeder line complies with Section 19.030(B)(1) and therefore is not required to comply with Sections 19.030 (B)(2) and (3). WCLUDO Section 19.040(B) applies to energy facilities or commercial energy facilities located within conditionally protected areas; the transmission feeder line is not located in a conditionally protected area designated by the WCCP and, therefore, Section 19.040(B) does not apply to the proposed facility. Section 19.040(C) applies to transmission facilities located in the F-1 zoning district. Because the proposed transmission feeder line is located entirely on EFU land in the A-1 zoning district, Section 19.040(C) does not apply.

WCLUDO Section 19.030(B)(1)(c) states that the proposed feeder line may not be sited in any areas described in WCLUDO Section 19.040(A)(1) through (3). Section 19.040(A)(1), (2), and (3) identify areas under federal, state or local control including the following:

National parks, national monuments, national wildlife refuges, BLM Outstanding Natural Areas, BLM Areas of Critical Environmental Concern, Federal Research Natural Areas, U.S. Forest Service Special Interest Areas, Wilderness areas under the Federal Wilderness Act and areas recommended for designation as wilderness areas pursuant to section 603 of the Federal Land Policy Management Act of 1976, Federally designated Wild and Scenic Rivers or any rivers recommended for designation by the National Park Service, State of Oregon parks, waysides, refuges, wildlife management areas, and natural area preserves, scenic waterways and adjacent lands designated pursuant to ORS 309.845, wild fish streams designated by the Oregon Department of Fish and Wildlife, and experimental areas established by the Rangeland Resources Programs, School of Agricultural, OSU, areas which the comprehensive plan designates as not suitable for a given type and size of energy facility, because the area contains significant open space, mineral resources, fish and wildlife habitat, scenic views and sites, water bodies, wilderness, cultural, geologic, historic, botanical, research, or recreational resources that cannot be protected from the adverse consequences of the facility.

The proposed facility is not located in any of the areas specifically identified by these criteria. However, FOOG asserts that while the facility may not be located within any of these areas, it will nonetheless have significant adverse impacts on the Lower Deschutes Wild and Scenic River and the Columbia River Gorge National Scenic Area, and therefore, suggests that the facility should be evaluated as if it were located within these areas. This criterion, however, relates to and restricts feeder lines only from sites within the boundaries of these areas. Therefore, the Council finds that the proposed transmission feeder line is not prohibited in the proposed location.

WCLUDO Section 19.030(B)(1)(d) identifies a transmission facility that “is less than 200 feet,” but does not specify whether 200 feet is a height limit or the length of the actual facility. However, the Section 19.030(B)(1) standards are for “location and height.” Similarly, WCLUDO Section 3.210(D)(13) identifies “A Transmission Facility under 200 feet in height...and the applicable Subject to Standards criteria of Chapter 19. It therefore appears that the 200-foot standard refers to the height of the facility, not its length. The proposed towers will be wood H-frame supports up to 70 feet high spaced approximately 800 feet apart, well below the 200-foot height limit.132 Accordingly, the Council finds that, as proposed, the transmission line satisfies this standard.

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132 Final ASC, Section K.5, p. 36
**Section 19.030(C) A Wind Facility as a Use Permitted Subject to Standards.** A proposed wind facility is a use permitted subject to standards if it complies with parts 19.030(C)(1) through (8). A wind measurement device is a use permitted subject to standards if it complies with subpart 19.030(C)(3)(b) and parts (C)(5), (C)(7) and (C)(8). In addition, a WECS and a wind measurement device are subject to the standards of subsection 19.040(A) through (C) and the applicable conditions of section 19.050.

The proposed facility is not a Use Permitted Subject to Standards under this section. Rather, the proposed facility is subject to Conditional Standards for Wind Facilities pursuant to Section 19.030(F). Section 19.030(F), however, requires that wind facilities comply with parts C(3)(a), (b), C(4)(b), and (C)(5) through (8) of this section. Compliance with these sections is as follows:


a. A WECS shall be setback from all adjoining property lines as described in (1) and (2) below. An easement that complies with ORS 105.900 through .915 may be substituted for required setbacks. The setback shall be measured from the center point of the tower or pedestal.

1. A horizontal axis WECS shall be setback at least five rotor diameters.

The rotor diameter of the turbines will be 101 meters (331 feet), which requires a setback of 1,655 feet. The Wasco County Planning Director submitted an interpretation of this standard, in a letter dated November 14, 2009. The County has interpreted this standard to apply only to adjoining properties that are not within the proposed facility boundary, not internal property lines.133 As proposed, the locations of most of the turbines will be set back at least 1,655 feet from all exterior adjoining property lines that are outside the proposed facility boundary.134

Although the turbine layout in the ASC is not final, some of the proposed turbine locations may not meet the 1,655 foot setback standard. However, the Council may approve these turbine locations pursuant to ORS 469.504(b)(1)(B), because they comply with the applicable statewide planning goals. Although the provisions of WCLUDO Section 19.030, including the setback criterion, have been acknowledged by LCDC to be in compliance with the statewide planning goals, the setback criterion is not required by any statewide planning goal.135

The proposed facility’s general compliance with the statewide planning goals is explained below in the findings regarding the goals and policies of the county’s acknowledged comprehensive plan, which are identical to the statewide planning goals. However, the statewide planning goals that are potentially applicable to the turbine

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133 In its November 14, 2009 letter, the County indicated that it expects to amend WCLUDO Chapter 19, including an amendment to the setback requirement.

134 Final ASC, Section K.5, p. 37

135 FOCG argues that if the turbine setback requirements are not required for goal compliance, the local ordinance becomes independently applicable and a finding of goal compliance cannot substitute for a finding of compliance with local criteria. FOCG has misconstrued the applicable statute. ORS 469.504(1)(b)(B) provides that EFSC may approve a proposed facility that “does not comply with one or more of the applicable substantive criteria but otherwise comply with the applicable statewide planning goals.” In this instance, while some of the proposed turbines may not satisfy the setback requirements of the applicable local ordinance, the Council may excuse that noncompliance by finding that the proposed development otherwise satisfies the applicable statewide planning goals.
setbacks are Goal 3 (Agricultural Lands) and Goal 13 (Energy Conservation). Goal 3 
provides that “agricultural lands shall be preserved and maintained for farm use, 
consistent with existing and future needs for agricultural products, forest and open space 
and with the state’s agricultural land use policy expressed in ORS 215.243 and 215.700.” 
OAR 660-033-0130(37) (effective January, 2009) allows wind power generation facilities 
on agricultural lands subject to Goal 3 without a goal exception.

As addressed above, Wasco County has directly implemented these rules at 
WCLUDO Section 3.210(J)(17). As demonstrated in the findings of compliance with 
WCLUDO Section 3.210(J)(17) above, the proposed facility satisfies these criteria and, 
therefore, is consistent with Goal 3. The 1,665 foot setback requirement is not required 
in order to satisfy Goal 3, nor does it affect the impact of the proposed facility on 
aricultural lands. Consequently, locating some turbines closer than 1,665 feet to 
property lines adjacent to the proposed facility boundary will not increase (or decrease) 
impacts to agricultural lands. Therefore, the Council determines that the proposed 
facility is consistent with Goal 3 notwithstanding that the setback criterion provided by 
the WCLUDO is not met for all proposed turbines in compliance with ORS 
469.504(1)(b)(B).

Goal 13 provides that “[l]and uses developed on the land shall be managed and 
controlled so as to maximize the conservation of all forms of energy, based upon sound 
economic principles.” Further, Goal 13 guidelines specifically promote the use of 
renewable energy resources, including wind power. The 1,665 foot turbine setback 
requirement does not provide an energy efficiency benefit for properties that are not 
donwind of the facility; it is possible that the setback could actually reduce energy 
efficiency by preventing placement of turbines for maximum efficiency. The setback 
requirement may provide some benefit to downwind property owners by reducing the 
chances that wind turbines on upwind property will impact the flow of wind to the 
donwind property.

However, this does not necessarily increase energy efficiency or promote wind 
development. That is particularly true for the subject site; downwind properties that are 
not within the proposed facility boundary are primarily owned by the Bureau of Land 
Management and either prohibited or unlikely to be developed with wind turbines. 
Therefore, setback compliance does not affect the proposed facility’s compliance with 
Goal 13. The Council finds that the proposed setback complies with the applicable 
statewide planning goals, notwithstanding that the setback criterion provided by the 
WCLUDO is not met for all proposed turbines, in compliance with ORS 
469.504(1)(b)(B).\(^{136}\)

\(^{136}\) FOCG asserts that Goal 13 “is not an ‘applicable’ statewide planning goal related to property line setbacks 
and cannot be used to trump local siting standards unrelated to energy efficiency.” SRW-0133, p. 17. As 
explained above, FOCG has misconstrued the applicable standard. Moreover, the determination of Goal 
compliance in this instance is not based on a finding that Goal 13 relates to the setback requirements, but 
rather that the setback requirement does not affect the proposed facility’s compliance with Goal 13.
all dwellings and accessory structures within the A-1 zoning district. To comply with this setback requirement, all turbines (measured from the center of the tower) must be at least 350 feet from all dwellings and accessory structures to account for the length of the turbine blade (approximately 150 feet blade radius plus 200-foot property line setback). All turbines are proposed to comply with this requirement. The proposed met towers will not have guy wires and are not located near any major structure. Therefore, the Council finds that, as proposed, all elements of the proposed facility, including all turbines, satisfy this setback requirement.

4. Minimum Height. The lowest point in the sweep of a WECS blade shall be a minimum height above the tallest current or foreseeable obstruction within a horizontal, 500 foot radius of a WECS or a radius of 10 rotor diameters (for horizontal axis) and 5 WECS heights (for vertical axis), whichever is greater, as described in (a), (b), and (c) below. The radius shall be measured from the center point of the tower.

b. At least 30 feet above current or foreseeable obstructions within 45 degrees of the direction(s) of prevailing wind for a horizontal axis WECS on a site with site-specific wind direction data or representative off-site data.

Final ASC, Figure X-1 identifies the locations of all existing structures within the project area. These structures meet the height limitation standards described in WCLUDO Section 3.210(F)(2), which provides a maximum height of 35 feet for structures within the A-1 zoning district. Section 3.210(C)(4)(b) requires a 30-foot clearance above the tallest allowable structure, requiring a total a distance of 65 feet from grade to the lowest sweep of the WECS rotor. Turbines with an 80-meter (262 feet) hub height and a rotor radius of the approximately 51.5 meters (165 feet), will provide approximately 28.5 meters (93 feet) of clearance from grade. This provides the clearance necessary to comply with the standard height requirement for the A-1 zone. Accordingly, the Council finds that the lowest point in the sweep of the turbine blades for the Summit Ridge facility satisfy the minimum height standards.

5. Public Access. Public access to a horizontal axis WECS shall be limited using one or a combination of the following methods:

a. Removal of tower climbing fixtures to 12 feet from the ground;
b. Installation of a locking, anti-climb device on the tower, or
c. Installation of a protective fence at least six feet tall with a locking gate.

No public access to the turbines is proposed. The proposed turbine towers are smooth and do not have any external fixtures that would permit climbing the tower. Each turbine tower will have a locked door to prevent access from the exterior of the tower, and all climbing fixtures will be enclosed inside the tower, preventing any access other than operations and maintenance staff who have keys to the outside door. Access to the substation and operations and maintenance facility storage area will be fenced to prevent any public access. No fences are proposed around the turbines. The Council finds that as proposed, the turbine towers satisfy this criterion.

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137 Final ASC, Section K.5, p. 38 and Section P.8.1, p. 37
138 Final ASC, Section K.5, p. 39
139 Final ASC, Figure X-1
140 Final ASC, Table X-3
141 Final ASC, Section K.5, p.39
6. Visual Effects. Except when the applicant demonstrates that such measures will significantly interfere with wind access over the life of the WECS, a WECS shall be sited to reduce visual impacts using means including, but not limited to, the following:

a. Setting the WECS against a visual backdrop that, because of color, texture or topography, helps the WECS blend into its surrounding environment.

b. Using non-reflective materials and colors that blend into the background unless otherwise required by the Federal Aviation Administration or Oregon State Aeronautics Division.

c. No advertising shall be placed on the WECS. Advertising does not include the manufacturer’s label or other signs required by law.

d. Setting the WECS back from scenic highways and zones containing any of the protected areas listed in subsections 19.040(A) and (B).

The visual impact of the proposed facility is addressed in Section IV.1 (Scenic Resources) in this Order, and is not expected to be significant. The turbines are proposed to be gray or off-white and constructed of nonreflective materials, typical of those used in other wind power facilities in the region [See Condition IV.I.2.1(a) and (b)]. Some turbines and met towers will have warning beacons, as required by FAA to warn airplanes of their locations, in conformance with subsections (a) and (b) [See Condition IV.I.2.3(a)]. No advertising will be placed on the turbines, per subsection (c) [See Condition IV.I.2.1(e)]. Criterion (d) does not specify a particular setback for reducing the visual effects of the Facility on scenic areas. The Council finds that, as proposed, the facility structures satisfy this criterion.

7. Notice. The following signs shall be clearly visible on the WECS tower and accessory facilities.

a. “No Trespassing” signs shall be attached to any perimeter fence.

b. “Danger” signs shall be posted at the height of five feet on WECS towers and accessory structures.

c. A sign shall be posted on the tower showing an emergency telephone number.

d. The manual electrical and/or overspeed shutdown disconnect switch(es) shall be clearly labeled.

The ASC includes a proposal to install signs as required by this section. All signs are proposed to satisfy the size limitations and locational requirements of WCLUDO 3.210(F)(4). The Council finds that, as proposed and subject to compliance with Condition IV.D.2.2, the facility satisfies this criterion.

8. Guy Wires. All guy wires shall be sheathed in a bright orange or yellow covering from three to eight feet above the ground.

The applicant does not propose to erect any structures that require guy wires, therefore this criterion does not apply to the proposed facility.

Section 19.030(F). Conditional Use Standards for Wind Facilities. A wind energy conversion system (WECS) shall be approved if it complies with parts 19.030(C)(6), (C)(7), (C)(8) and the

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142 Final ASC, Section K.5 K, p. 40
143 Final ASC, Section K.5, p. 40
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standards in (F)(1) through (6) below. In addition, a WECS is subject to the standards in section 19.040 and the applicable conditions of section 19.050.

1. Setbacks. WECS shall comply with subparts (a), (b) and (c) below.

   a. WECS shall comply with the requirements of subparts 19.030(C)(3)(a) and (b).

   b. A WECS tower or pedestal shall be setback as described in (1) and (2) below from the edge of a public arterial right-of-way and property lines of downwind lots. An easement that complies with ORS 105.900 through .915 may be substituted for required setbacks. The setback shall be measured from the center point of the tower or pedestal.

      (1) A horizontal axis WECS shall be setback at least five rotor diameters or 100 feet, whichever is greater.

   Setbacks in compliance with this requirement are addressed above in this Order (WCLUDO Section 19.030(C)). As discussed, not all proposed turbines will meet the setback requirements as required by this section, but are otherwise in compliance with the requirements of the applicable statewide planning goals. The Council finds that the proposed turbine locations satisfy the statewide planning goals pursuant to ORS 469.504(1)(b)(B).

   c. A WECS shall be set back from lots in residential zones and significant visual resources identified in the comprehensive plan one quarter mile or as described in (1) and (2) below, whichever is less.

   The proposed facility is surrounded completely by EFU land in the A-1 zoning district. There are no residential zones within one quarter mile of the lease boundary. The WCCP identifies the Columbia River Gorge National Scenic Area (CRGNSA) and the Deschutes River State Recreation Area (DRSRA) as outstanding scenic and recreation areas, and I-84 as a scenic corridor. All turbines associated with the Summit Ridge facility will be located at least one quarter mile from these resources.\(^{144}\) Accordingly, the Council finds that the facility as proposed satisfies this standard.

2. Minimum Height.

a. A horizontal axis WECS shall comply with subpart 19.030(C)(4)(b). However, a WECS in a windfarm is not an obstruction to other WECS on-site.

   Compliance with Section 19.030(C)(4)(b) is addressed above in findings of compliance with Section 19.030(C).

3. Public Access. Public access to WECS shall be limited using one or a combination of the methods contained in section 19.030(C)(5) and a protective fence at least six feet tall enclosing the site.

   As described in findings of compliance with Section 19.030(C)(5) access to the turbines will be limited by a door located at the base of each turbine tower that will be locked at all times to prevent public access to the interior of the tower. All climbing fixtures will be enclosed inside each tower, preventing any access other than from facility operations and maintenance staff. As proposed, the facility includes a six-foot fence to prevent public access to the substation and operations and maintenance facility storage area. No fences are proposed around the turbines because, as described above, the

\(^{144}\) Final ASC, Section K.5, p. 42
turbines are designed to limit public access. The Council finds that as proposed, the facility satisfies this standard.

4. Wind Resources. The site shall have site-specific data documenting wind speed and direction or off-site data from within the same topoclimatological zone as the proposed site.

The applicant represents that it has collected site specific wind data since 2001 and based on this information has determined that the wind resources are adequate to support the proposed facility. The Council finds that the proposed facility has satisfied this standard.

5. Fish, Wildlife, and Plant Resources. The facility shall not have a significant adverse effect on endangered species or their critical habitats or on other significant habitats identified in the comprehensive plans.

The proposed facility is not expected to have any significant impact on wildlife habitat or riparian vegetation, nor will it increase the likelihood of soil erosion. ASC Exhibits P and Q identify specific fish and wildlife resources, including state and federally listed species in the area, and any potential impacts to those resources. These exhibits show that the proposed facility is not expected to significantly affect any listed endangered or threatened species or adversely affect fish and wildlife species or habitat.

Exhibit P identifies and categorizes all fish and wildlife habitats within the habitat analysis area in accordance with Oregon Department of Fish and Wildlife methodology. No Category 1 habitat was found in the analysis area. The bulk of the habitat within the analysis area is Categories, 3, 4, and 6. The majority of permanent impacts would be to Category 6 land, which accounts for over 50 percent of habitat that will be permanently affected. Temporary impacts will occur primarily on primarily Category 6 habitat as well, accounting for approximately 52 percent of the temporary impact to habitat areas. Mitigation for these impacts is required to be developed in consultation with the ODFW and a monitoring plan will be implemented to evaluate actual impacts.

As described in Exhibit J, six wetlands were identified during the field investigation. The proposed facility has been designed to avoid any impacts to wetlands of waterways.

The impacts of the proposed facility on fish and wildlife habitat (as described in Exhibit P of the ASC), and proposed mitigation to meet Council standards, are discussed in Section IV.G of this Order. Potential impacts to threatened and endangered species (as described in Exhibit Q of the ASC) are discussed in Section IV.H. Potential impacts to wetlands (as described in Exhibit J of the ASC) are discussed in Section VI.B. Subject to compliance with the site certificate conditions discussed in IV.G, IV.H, and VLB, the Council finds that the proposed facility can satisfy this standard.

6. Bonding. An applicant who is not the owner of the proposed site shall post a bond or an alternative acceptable to the county which is sufficient to guarantee removal and disposal of the wind farm components and restoration of the land in case of noncompliance with the provisions of the ordinance.

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145 Final ASC, Section K.5, p. 42
146 Final ASC, Section K.5, p. 43
147 Final ASC, Section P.8.2, p. 38 and Attachment P-6
148 Final ASC, Section J.3, p. 2
This provision requires the applicant to provide a bond or other financial assurance to the County to guarantee removal of the facility if the facility ceases operation. As noted in the comments submitted by the County, the existing Wind Energy Development Ordinance was adopted in 1985 and has not been meaningfully updated since then. The size of wind turbines commonly used in commercial wind development, the rotor diameters, and the overall scale of contemporary Oregon wind farms, were not foreseen by the County in 1985. Wasco County recognizes these ordinances are antiquated and do not reflect current technologies.\(^{149}\)

The Wind Energy Development Ordinance also does not specifically distinguish between facilities within the Energy Facility Siting Council’s jurisdiction and those that are not. Thus, the County ordinances do not contain an exception to the bonding requirement for facilities that are being reviewed by the Council. Pursuant to OAR 345-027-0020(8), in order to guarantee site restoration, the Council requires as a mandatory condition that the applicant obtain a bond or letter of credit naming the State of Oregon, acting by and through the Council, as beneficiary or payee.

As discussed in Section IV.F (Retirement and Financial Assurance) of this Order the applicant proposes to satisfy the requirements of OAR 345-027-0020(8) by obtaining a letter of credit in an amount up to $9,000,000 to meet the required financial security instrument. The applicant has provided a letter from the Bank of America expressing interest in providing a letter of credit in the amount of up to $9,000,000, subject to its due diligence requirements.\(^{150}\) The County did not object to this proposal.\(^{151}\)

The Council finds that the County’s bonding requirement is preempted by the Council’s mandatory condition; and subject to compliance with condition IV.F.2.1, requiring the applicant to obtain the proposed letter of credit or bond, the applicant has satisfied this standard.


A. Protected Areas. An energy facility may not be sited in the areas listed in part 19.040(A)(1) through (3) unless the facility complies with part (A)(4) below.

Compliance with subsections 19.040(A)(1) through (3) has been previously addressed in this Order, in findings of compliance with 19.030(B).

4. Exceptions. An energy facility may be permitted in an area listed in parts 19.040(A)(1) through (3) above if it complies with at least one of the following exceptions, and it will be compatible with adjacent uses and resources. However, a hydroelectric dam or diversion is not permitted in a scenic waterway or adjacent lands designated pursuant to ORS 390.825.

The Council finds that this criterion does not apply because the proposed facility is not located in a Conditionally Protected Area designated by the Wasco County Comprehensive Plan (WCCP).

D. Compliance with the Comprehensive Plan. The facility shall comply with the applicable policies of the comprehensive plan.

\(^{149}\) SRW-0098

\(^{150}\) Final ASC, Attachment M-2

\(^{151}\) Where criteria and findings are not addressed, Wasco County is in agreement with the findings submitted by applicant (SRW-0064).
Compliance with the WCCP is addressed below.

Section 19.050 Conditions of Approval

Approval of an energy facility shall be subject to the following conditions. In addition, the approval authority may require an energy facility that is approved as a conditional use to comply with other conditions as necessary to fulfill the purpose of this chapter.

A. Coordination

1. Continuing Notice. The applicant shall provide the county with a copy of all applications for, or notices of, state or federal permits, licenses, exemptions, or variances in conjunction with the construction and licensing of the facility and proposed significant changes to the facility. The applicant shall make a good faith effort to provide the copy at the earliest possible time.

2. State and Federal Authority. The applicant should demonstrate that all necessary state and federal permits, licenses, exemptions, variances, or authority are approved before initiating construction of the facility.

3. Other Terms & Conditions. The terms and conditions of the following authorities satisfy substantially similar standards and conditions of this chapter and supersede inconsistent county conditions.

   a. A dredge and fill permit is granted by the Division of State Lands under ORS 541.615;

   b. The proposed action is a forest operation that complies with the Forest Practices Act under ORS 526 – 527 and the Rules of Forest Practices;

   c. Written approval of development within the Oregon Scenic Waterways System is granted by the Department of Transportation under ORS 390.800, the Energy Facility Siting Council under ORS 469.430-469.570, or the Water Resources Department under ORS 537.130 through 537.450;

   d. Written approval of the Department of Environmental Quality when air or water quality discharge permits, exemptions, or variances are granted; or

   e. The facility complies with substantially similar standards of the special districts listed in section (F)(4) below.

4. Consistency with Service Districts and Special Purpose Agencies. The development shall comply with the hazardous or solid waste, flood, surface, or groundwater, soil conservation, or resource management program(s) adopted by the appropriate emergency management authority, drainage district, soil conservation agency, or resource management agency(ies).

WCLUDO Section 19.050(A) contains administrative criteria that require the applicant to supply documentation that the facility has received approval from various local and state regulatory agencies. The applicant has elected to pursue Council rather than Wasco County approval for the proposed facility. Other agency documentation and approvals are coordinated through this process, and, where applicable, are made conditions of this Order.

B. Environmental Protection Overlay Districts. An energy facility or commercial energy facility in the following overlay, combining, or floating districts shall comply with applicable terms of those districts:

   1. The Flood Hazard Overlay district,

   2. The Geologic Hazard Overlay district,
3. The Mineral Resources Overlay district,
4. The Cultural, Historic and Archaeological Overlay district,
5. The Sensitive Wildlife Habitat district,
6. The Columbia Gorge Overlay district,
7. The Airport Impact Overlay district, and
8. The Natural Areas Overlay district.

The Wasco County Planning Department has reviewed the proposed locations of the tower corridors and roads within the analysis area. The Planning Department found that the proposed facility location is not impacted by any of these overlay districts.\textsuperscript{152}

C. Protection of Water Quality.

1. The development shall comply with the water quality standards for dissolved oxygen and temperature adopted by the Oregon Environmental Quality Commission (EQC) and codified in OAR 340-41 and shall not increase turbidity. Water quality effects of forest operations shall comply with the Oregon Rules for Forest Practices (ORFP) and the Forest Practices Act.

2. To the extent not inconsistent with EQC and ORFP rules, the Planning Director may allow these standards to be exceeded for a specified short time when necessary to accommodate essential construction, emergency, or other permitted uses and actions.

The proposed facility will not significantly affect water quality. The proposed facility will use an on-site well exclusively for the O&M facility. Water will discharge into a permitted on-site septic system. Any vehicle or component washdown is proposed to occur in an area where water used will infiltrate the ground.\textsuperscript{153} Additionally, the applicant will obtain a National Pollutant Discharge Elimination System (NPDES) 1200-C permit from the Department of Environmental Quality that will identify best management practices to prevent erosion and stormwater runoff during construction. Subject to compliance with NPDES 1200C permit requirements, the Council finds that, as proposed, the facility satisfies this standard.

D. Protection of Water Bodies and Wetlands. The development will incorporate mitigation and conditions to protect Class I and Class II streams and wetlands and the banks and vegetation along those streams and wetlands affected.

The ASC includes an inventory of all wetlands and water bodies located within the project area. The applicant identified six wetlands during the field investigation, two of which are isolated, with no connection to jurisdictional water features. The remaining four wetlands are associated with the drainage features of Dry Creek and Shotgun Hollow and are tributaries to the Columbia River.\textsuperscript{154} The proposed facility is designed to avoid these features; no development will occur in riparian areas or along stream banks. The Council finds that, as proposed, the facility satisfies this standard.

E. Soil Protection. Development shall not cause a significant increase in erosion or sedimentation based on the topography, use and soil classification of the site and access

\textsuperscript{152} Final ASC, Section K.5, p. 46
\textsuperscript{153} Final ASC, Section K.5, p. 47
\textsuperscript{154} Final ASC, Section K.5, p. 47
to it. Practices to reduce or avoid erosion and sedimentation include but are not limited to the following:

1. Structures and access avoid areas of steep slopes where high cuts and fills are required and shall use natural contours.

2. The smallest practical area of land is to be exposed for the shortest practical time during development.

3. Measures are used such as seeding and sodding, temporary use of straw or fabric cover, aggregate cover, diversions authorized by state permit, sediment basins, and filters.

The required NPDES 1200-C permit will address erosion from construction of the proposed facility. The NPDES permit will require the use of best management practices to minimize the potential for erosion. Best management practices will include a variety of means to minimize the impacts of wind erosion. In actively farmed areas, the wheat crop will protect stockpiled soil from wind erosion. In other areas, hay bales or other similar containment features will be used to control wind erosion during construction of the proposed facility. As needed, water from water trucks will be sprayed on disturbed areas to keep wind-borne erosion losses to a minimum. After the need for the staging areas ends, the staging area locations will be brought back to their original contours, topsoil will be spread in these areas, and will be revegetated or prepared for planting, or for use as range land. The Council finds that, subject to compliance with the NPDES 1200-C stormwater permit requirements, the proposed facility satisfies this standard.

F. Health and Safety.

1. Drinking Water. No water sources shall be used for consumption unless approved in writing by the Oregon State Health Division.

Drinking water to the proposed O&M building will be provided from an exempt on-site well that will provide less than 5,000 gallons per day. The Council finds that, as proposed, the facility satisfies this standard.

2. Toilets. Field toilets approved by the county sanitarian or Oregon Department of Environmental Quality shall be available at construction sites in the vicinity and upstream of Class I or Class II streams or other water supplies.

During construction, portable toilets will be provided in locations near construction areas and will be maintained by a local supplier. The Council finds that, as proposed, the facility satisfies this standard.

3. Gounding. All structures which may be charged with lightning shall be grounded according to the Oregon State Electrical Specialty Code.

All structures are proposed to be grounded in accordance with the Oregon State Electrical Specialty Code. The Council finds that, as proposed, the facility satisfies this standard.

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155 Final ASC, Section K.5, p. 47
156 Final ASC, Section K.5, p. 48
157 Final ASC, Section K.5, p. 48
158 Final ASC, Section K.5, p. 48
4. Electrical Safety. Transmission lines associated with the facility shall not generate an electrical field greater than 9 kV per meter measured at grade and shall comply with the National Electrical Safety Code, based on a written decision by the Public Utility Commissioner.

The proposed transmission feeder line will not exceed the 9-kV per meter limit at grade. The proposed transmission line will generate a maximum electrical field of 3.8-kV per meter measured at one meter above ground level along the transmission line right-of-way.\textsuperscript{159} The Council finds that, as proposed, the facility satisfies this standard.

5. Air Safety. Any structure that is more than 200 feet above grade or exceeds airport imaginary surfaces defined in OAR 738, shall comply with the air hazard rules of the Oregon State Aeronautics Division (OSAD) and Federal Aviation Administration (FAA), based on a written action by those agencies.

The applicant proposes to place flashing red beacons on some turbines and meteorological towers in accordance with FAA requirements.\textsuperscript{160} The Council finds that, as proposed, the facility satisfies this standard.

6. Communications. The proposed facility shall not unethically reduce or interfere with electromagnetic communication signals. If undue reduction or interference occurs, the applicant shall return reception levels to pre-facility levels.

No interference with existing communications is anticipated with construction of the Facility.\textsuperscript{161} The Council finds that, as proposed, the facility satisfies this standard.

7. Noise. Construction and operation of the proposed facility shall comply with the noise regulations of the Oregon Department of Environmental Quality (DEQ) in OAR 340-35, based on a written decision by DEQ. In addition, a wind farm application shall identify noise sensitive property(ies) and ambient noise levels prior to construction.

As discussed above with regard to compliance with WCLUDO 5.020(B), noise modeling was completed for the proposed facility that indicated the proposed facility will comply with the DEQ noise standards.\textsuperscript{162} Compliance of the proposed facility with the DEQ noise regulations is discussed in Section VI.A, Noise Control Regulations. When the turbine model has been selected and the precise turbine layout has been determined, the applicant must submit a final acoustical analysis to the Department of Energy for review and approval. The applicant must also submit evidence that it has secured noise easements (if required) for any noise-sensitive properties identified by the pre-construction analysis. The Council finds that, subject to compliance with Conditions VI.A.2.1 and VI.A.2.2 requiring submittal of a final acoustical analysis and evidence that noise easements have been obtained, the proposed facility will satisfy this standard.

8. Public Roads. Mud and other debris from related construction, road wear from related vehicles, or facility operation shall not create a hazard on public roads and highways. Mud and debris that fall onto a county road should be removed by the applicant as soon as possible.

\textsuperscript{159} Final ASC, Section K.5, p. 48
\textsuperscript{160} Final ASC, Section K.5, p. 48
\textsuperscript{161} Final ASC, Section K.5, p. 48
\textsuperscript{162} Final ASC, Section X.2.2, p.4 and Section X3.1, pp. 5-6
Several roads will be utilized during construction to deliver components and for
construction workers to access the site. The applicant will remove mud and debris, as
necessary, to maintain the safety of the public road system in conformance to this
standard. Some existing roads will require either resurfacing with gravel, widening to
accommodate construction and component delivery vehicles, or both. The Council
finds that, as proposed, the facility satisfies this standard.

G. Fish and Wildlife.

1. The applicant shall consult with the Oregon Department of Fish and Wildlife (ODFW)
   concerning the facility and shall provide information as requested to ODFW. The
development shall be subject to ODFW recommendations that are consistent with the
county decision regarding the facility.

Mitigation for impacts to wildlife habitat will be coordinated with ODFW. A draft
Wildlife Monitoring and Mitigation Plan is included here in Exhibit 2. A draft Habitat
Mitigation Plan is included as Exhibit 3. Both plans were developed in consultation with
the ODFW. The plans are discussed in more detail in Section IV.G of this Order, which
also includes site certificate conditions requiring compliance with the monitoring and
mitigation plans and ongoing consultation with ODFW staff. The Council finds that,
subject to compliance with the site certificate conditions in Section IV.G.2 of this Order,
the applicant has satisfied this standard.

2. A transmission line sited adjacent to wetlands or water bodies identified as critical bird
   habitat in the comprehensive plan shall comply with (a), (b), or (c) below:
   a. The line is lower than the level of surrounding treetops.
   b. The line is at least 50 feet from the edge of the nearest wetland or water body.
   c. The line is separated from the nearest wetland or water body by topography or
      substantial vegetation, does not use static or lightning wires, does use marker balls or
      flags on the line, or is perpendicular to the prevailing winds.

As described in response to WCLUDO Section 19.050(B), there are no critical
habitat areas or other overlays that are affected by the proposed facility. Therefore the
Council finds that these criteria do not apply.

Wasco County Comprehensive Plan

Wasco County identified the following sections of the WCCP as applicable to the proposed
facility. The Council finds that the proposed facility complies with the identified applicable
sections, as follows:

WCCP Section V(J). Parks and Recreation and Scenic Areas

Scenic highways are "those adjacent to or passing through scenic areas in State or
Federal parks, historic sites, or any area of natural beauty that has been designated a scenic
area by the Scenic Area Board", (p.5.42). Table 7 lists the scenic high-ways in Wasco County
as designated by the Board, which has recently been replaced by the Travel Advisory
Council.

Table 7 of the WCCP designates scenic highways within Wasco County, of which three
are located in the vicinity of the proposed facility: I-84 from the Hood River/Wasco County

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\footnote{Final ASC, Section K.5, p. 49}
line to the Wasco/Sherman County line (with the exception of the stretch located within the Dalles city limits); US 197 between I-84 and Dufur and from the Tygh Ridge Summit to the Maupin city limits; and OR 216 between the US 26/OR 216 intersection and the US 197/OR 216 intersection west of Maupin. Table 7 of the WCCP identifies the scenic area in the vicinity of I-84 and OR 216 as 660 feet on either side of the highway right-of-way; the scenic area along US 197 in the designated scenic area corridor is any area within view of the highway.

Components of the proposed facility will be visible from US 197 and OR 216. Impacts to these roads associated with scenic value are expected to be negligible given the viewing distances of over eight miles and the fact that the turbines would be subordinate to the surrounding landscape. The Council finds that, as proposed, the facility satisfies Section V(J) of the WCCP.

WCCP Section V(J)(3) Outstanding Scenic and Recreational Areas

Outstanding scenic and recreational areas have exceptional qualities which draw visitors from outside the county, as well as provide local citizens with excellent recreational opportunities. These areas are listed in Table 11.

Table 11 of the WCCP lists the following outstanding scenic and recreational areas in Wasco County in the vicinity of the Facility:

• Columbia River Gorge: Includes area defined by the Columbia River Gorge Commission and O.R.S. 390.460.

• Deschutes River: Areas within the river canyon that can be seen from the Deschutes River or lands designated under the State Scenic Rivers Act. This is a potential Federal Wild and Scenic River.

As described above with regard to compliance with WCLUDO 5.020(H), ASC Exhibit R describes the potential impacts that may occur to the scenic and aesthetic resources in the vicinity of the proposed facility, and Exhibit T describes the potential impact to recreational opportunity areas. A visibility analysis was completed to identify where the proposed facility components would be visible from these resources. The proposed facility will not be visible from I-84. Portions of turbines may be marginally visible from some locations within the CRGNSA, but public access to these locations is very limited. Portions of turbines will be intermittently visible along the Deschutes River and associated hiking and multiuse trails, but will not dominate views.

FOCG argues in its comments that the proposed facility does not satisfy the scenic and recreational standards, and incorporates those arguments in challenging compliance with this comprehensive plan provision. For the reasons discussed in those sections, FOCG has not established that the visual impacts of the proposed facility preclude compliance with this standard.

With mitigation measures discussed in Exhibits R and T, visual impacts are expected to be minimal. The Council finds that, as proposed, the facility satisfies this standard.

WCCP Section XV. Goals and Policies

Goal 1 — Citizen Involvement

To develop and maintain a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.
The applicant has elected to have the Council make the land use decision in accordance with ORS 469.504(1)(b), and therefore the Council’s procedural requirements apply, rather than the County’s citizen involvement program. The Council’s procedure for making a site certificate decision is a public process. The application is a public document that has been made available at libraries in Wasco County. All documents issued by the Department are public documents, most of which are posted on the Department’s Internet website. The Department uses information meetings, direct mailing, newspaper publication and the Internet to inform the public about the proceedings regarding the proposed facility. There are opportunities for public comment throughout the site certificate review process. Before the Council takes final action on this site certificate application, a contested case proceeding is available to address issues that were raised in the public hearings process that preceded this Final Order. The Council’s meetings are open to the public. The Council finds that the process used to review the proposed facility satisfies the W CCP, Section XV, Goal 1.

**Goal 2 – Land Use Planning**

To establish a land use planning process and policy framework as a basis for all decisions and actions related to use of land and to assure an adequate factual base for such decisions and actions.

The applicant is seeking a Council determination of compliance with land use standards and the Council’s procedures rather than the County’s specific procedures as they apply to the land use determination. This Final Order reviews compliance with the all substantive Wasco County development criteria and Comprehensive Plan policies as well as relevant statewide land use planning goals, Oregon Administration Rules, and Oregon Revised Statutes. The Council finds that the process used to review the proposed facility satisfies the W CCP, Section XV, Goal 2.

**Goal 3 – Agricultural Lands**

To preserve and maintain agricultural lands.

**Policy 1: Maintain Exclusive Farm Use zoning.**

**Implementation:** (B)(3) Non-farm uses permitted within farm use zones adopted pursuant to ORS 215.213 should be minimized to allow for maximum agricultural productivity.

ORS 215.283 identifies land uses permitted in exclusive farm use zones. As it relates to the proposed facility, ORS 215.283(2)(g) permits, subject to approval, “Commercial utility facilities for the purpose of generating power for public use by sale.” Effective January, 2009, “wind power generation facilities” are permitted on EFU-zoned lands under ORS 215.283(2)(g), pursuant to OAR 660-033-0130(37), which Wasco County has implemented through WCLUDO 3.210(3)(14). The Council finds that the principal use of the facility, including the wind turbines, power collection system, collector substation, met towers, control system, and O&M facility constitute a use allowed under ORS 215.283(2)(g).

ORS 215.283(1)(c) allows “utility facilities necessary for public service...but not including commercial facilities for the purpose of generating electrical power for public use by sale or transmission towers over 200 feet in height. A utility facility necessary for public service may be established as provided in ORS 215.275.” The Council finds that the 230 kV 164 The W CCP cites ORS 215.213 as the statutory authority for implementing its Agricultural Goal. ORS 215.213 applies to uses of land designated for exclusive farm use in Marginal Lands Counties. ORS 215.283 applies to uses of EFU-designated lands in non-marginal lands counties. Wasco County is a non-marginal lands county and, therefore, is subject to ORS 215.283.
transmission line constitutes such a use, as allowed under ORS 215.283(1)(d), subject to the standards of ORS 215.275, which the county has implemented through Section 3.210(J)(8).

The findings of compliance with WCLUDO 3.210(3)(14), which also demonstrate compliance with OAR 660-033-0130(37), establish that the proposed wind generation facility is allowed under ORS 215.283(2)(g). The findings of compliance with WCLUDO Section 3.210(J)(8) demonstrate that the proposed transmission line satisfies the requirements of ORS 215.275 and is allowed under ORS 215.283(1)(d). Accordingly, The Council finds that the proposed facility satisfies WCCP, Section XV, Goal 3, Policy 1.

**Goal 3 – Open Space, Scenic, and Historic Areas and Natural Resources**

To conserve open space and protect natural and scenic resources.

**Policy 3: The Deschutes and John Day River Scenic Waterways shall be maintained and protected as natural and open space areas with consideration for agriculture and recreation.**

No portion of the proposed facility will be directly located in the Deschutes or John Day Scenic Waterway, although some components may be visible from the Deschutes River Scenic Waterway. As discussed above, Exhibit R evaluates potential impacts that may occur to the scenic and aesthetic resources in the vicinity of the proposed facility, and Exhibit T addresses potential impact to recreational areas. Exhibit R includes a visibility analysis that identifies where the proposed facility components would be visible from these resources. Portions of turbines will be intermittently visible along the Deschutes River and associated hiking and multiuse trails, but will not dominate views. The proposed facility will not be visible from the John Day River Scenic Waterway.

FOCG questions whether the finding that the proposed facility will not be located in the Deschutes or John Day Scenic Waterway refers to the “actual river itself or to the Deschutes River Wild and Scenic River Area and Deschutes River State Recreation Lands.” As the FOCG explain, “the Wild and Scenic River Area is significantly more expansive than the Deschutes River itself. The Wild and Scenic River Area covers thousands of acres. In turn, the State Recreation Lands appear to be significantly more expansive than the Wild and Scenic River Area.” However, as FOCG acknowledges, it is only the leased lands for the project that would extend into Wild And Scenic areas and State Recreation Lands. As the applicant correctly explains, property over which the applicant has lease rights -- without any proposed project elements -- are not subject to review under the Council’s siting standards.

The Council finds that as proposed, and subject to compliance with the standards discussed in Sections IV.E, IV.1, and IV.1 of this Order, the proposed facility satisfies the WCCP, Section XV, Goal 5, Policy 3.

**Policy 5: Maintain the existing aesthetic quality of the Columbia River Gorge.**

The visibility analysis provided in Exhibit R and discussed in Section IV.1 of this Proposed Order identifies where the proposed facility components would be visible from important scenic and aesthetic resources including the CRGNSA. As discussed above with regard to compliance with WCLUDO 5.020(H), the visibility analysis indicates some portion of the proposed facility would be visible from some locations in the eastern portion of the CRGNSA. Much of the visible area identified in the visibility analysis is not publicly accessible; there are limited roads and most land is held in private ownership. Modeling results and field investigation indicate that the proposed facility would not be visible from I-84, Historic Columbia River Highway, Rowena Plateau and Nature Conservancy Viewpoint, or the Columbia River. The most likely locations from which to view the proposed facility occur along Washington State Route (SR) 14 in the vicinity of Wishram, Washington.
Where visible, the proposed facility would be subordinate to the landscape setting that typically includes significant development such as interstate highway and rail transportation corridors, electrical transmission corridors, radio and cellular towers, and urban and rural development in the foreground and middleground. Given the relative amount of existing encroachment in the foreground and middleground views, the proposed turbines (or portions of turbines) that would likely be visible in the background, and limited opportunities to view turbines, the proposed facility would result in minimal impacts to the CRGNSA.

FOCG challenge this finding, urging that “this analysis should be revised to explain the distance along State Route 14 that the Summit Ridge project would be visible from. The analysis should also explain the number of turbines that would be visible along that distance and the number of turbines that would have aviation safety lights. Absent this information, it is not possible to draw any conclusions regarding the likely impacts of the project on views from State Route 14, a designated key viewing area within the National Scenic Area.” FOCG also urge that the finding that where it is visible, the proposed facility would be subordinate to the landscape setting, is a “gross mischaracterization of the nature of the views from State Route 14 within the National Scenic Area.”

FOCG has not established how evaluation of the views from State Route 14 is critical to the determination of compliance with the county’s Goal 5, Policy 5. As the applicant explains, the requirements of the Columbia River Gorge National Scenic Area Act and Management Plan do not require that the County’s Goal 5 inventory be employed “to protect views along Washington Statewide Route 14 from a wind energy project located outside the Scenic Area and 10 miles or more from State Route 14.” The applicant further responds that “even if the Management Plan were applicable, it designates State Route 14 as a “key viewing area” and a “scenic travel corridor,” but nothing in the Management Plan regulates development outside the Scenic Area and nothing in Goal 5, Policy 5 indicates that Wasco County intended to insert standards from the CRGNSA Management Plan into the Wasco County Comprehensive Plan.”

The Council finds that, subject to compliance with Exhibit R, the proposed facility satisfies the WCCP, Section XV, Goal 5, Policy 5.

Policy 7: Fish and Wildlife

-Encourage land use and land management practices which contribute to the preservation and enhancement of fish and wildlife resources, with consideration for private agricultural practices.

-To conserve and protect existing fish and wildlife areas.

-To maintain wildlife diversity and habitat so that it will support optimum numbers of game and nongame wildlife for recreation and aesthetic opportunities.

ASC Exhibit P identifies specific fish and wildlife resources, including state and federally listed species in the area, and potential impacts to those resources, including categorizing all fish and wildlife habitats within the habitat analysis area. The proposed facility is not expected to significantly affect any listed endangered or threatened species or adversely affect fish and wildlife species or habitat, and there is little or no habitat in the project area to support such species. A monitoring plan in coordination with ODFW is required to evaluate actual impacts.

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165 SRW-0133, p. 18
The siting process also requires the applicant to consider and comply with the ODFW Fish and Wildlife Habitat Mitigation Policy as set forth in OAR 635-415-0000 through -0023. The bulk of the habitat within the analysis area is Categories, 3, 4, and 6. The majority of permanent impacts will be to Category 6 – developed land, accounting for approximately over 50 percent of habitat that will be permanently affected. Temporary impacts will occur primarily on primarily Category 6 habitat, accounting for approximately 52 percent of the temporary impact to habitat areas. Mitigation for these impacts is proposed in consultation with the ODFW and will be established prior to issuance of the site certificate. Detailed discussion of the facility’s compliance with the Council’s Fish and Wildlife standard is included in Section IV.G of this Order. The Council finds that, subject to compliance with the site certificate conditions in Section IV.G.2, the proposed facility satisfies WCCP, Section XV, Goal 5, Policy 7.

Policy 8: Historic, cultural and archaeological areas should be preserved.

As discussed previously, ASC Exhibit S identifies existing cultural and historic resources in the analysis area and the potential impacts on those resources associated with construction of the proposed facility. There are no historic or cultural resources listed on the NRHP within the analysis area. During the archaeological survey for the proposed Facility, 12 prehistoric archaeological sites, 1 historic archaeological site, 22 isolated finds, and 3 historic buildings were documented. Ten of the prehistoric archaeological sites are significant and possibly eligible for listing on the NRHP. One historic building, the Center Ridge Schoolhouse, is possibly eligible for NRHP listing. The design of the proposed facility will avoid these sites with a minor relocation of wind turbines within the identified corridor, and should not present any impacts to identified sites. The Council finds that the proposed facility satisfies the WCCP, Section XV, Goal 5, Policy 8.

Goal 6 – Air, Water and Land Resources Quality

To maintain and improve the quality of the air, water and land resources of the County.

Policy 1: Encourage land uses and land management practices which preserve both the quantity and quality of air, water and land resources.

This policy encourages land uses and management practices that preserve air, water and land resources. The facility will have little impact on air, water and land resources. The facility will not create a new pollution source, and traffic associated with the facility will be minimal. The facility will not significantly increase the amount of exposed soils in the site area. As described in Exhibit P, any soils exposed during construction will be revegetated to prevent soil erosion from wind and rain. The proposed facility will have little impact to air and water, and limited impacts on land resources. Construction of the Facility will be conducted pursuant to an NPDES (1200-C) Permit issued by the DEQ, which will ensure the use of erosion control best management practices during construction.

Wastewater generated on-site will be limited to the O&M building, which will be connected to a DEQ-approved on-site septic system. As discussed in ASC Exhibit V, no industrial wastewater will be generated during operations. Impacts to land resources will be limited to the permanent impacts associated with facility construction that will permanently impact approximately 82 acres of A-1 zoned land. The amount of land used for the facility is a very small percentage of the land within the site boundary area, and the Facility components will be located to minimize impacts to existing farm operations. As discussed in ASC Exhibit I and Section IV.C of this Order (Soil Protection), the
applicant will be required to follow the requirements of a Revegetation and Weed Control Plan that has been approved and reviewed by Wasco County.

The Council finds that, subject to compliance with site certificate conditions presented in Section IV.C.2 (Soil Protection), including compliance with the Revegetation and Weed Control Plan, the proposed facility can satisfy WCCP, Section XV, Goal 6, Policy 1.

Policy 4: Noise levels should be maintained in compliance with state and federal standards.

Implementation:

A. Noise levels for all new industries must be kept within standards set by state and federal agencies.

B. Consideration for the effects of noise on the surrounding environment will be given when a new development of any kind is proposed.

C. Noise sensitive areas should be identified and only compatible uses permitted in their vicinity.

As discussed above regarding compliance with WCLUDO 5.020(E) and 19.050(F)(7), noise from construction and operation of the proposed facility is discussed in Section VI.A, Noise Control Regulations. The Council finds that, subject to compliance with Conditions VI.A.2.1 and VI.A.2.2 requiring submittal of a final acoustical analysis and evidence that noise easements have been obtained, the proposed facility satisfies WCCP Section XV, Goal 6, Policy 4.

Goal 8 – Recreational Needs

To satisfy the recreational needs of the citizens of Wasco County and visitors.

Policy 1: Manage the Deschutes and John Day Scenic Waterways to minimize recreational overuse, accumulation of solid waste and conflicts with agricultural use, while maximizing their scenic and recreational values.

The proposed facility will not provide any recreational amenities that would attract additional users to the John Day or Deschutes Scenic Waterways, nor would it alter the land uses in the vicinity of those rivers. The land within the analysis area is primarily used for winter wheat and grazing and is proposed to continue to be used for those purposes. Solid waste generated in the construction and operation of the facility will not have an impact on the John Day or Deschutes Scenic Waterways. The facility will generate minimal construction waste and very little solid waste that would require off-site disposal; that waste that does require off-site disposal is proposed to be disposed of in a landfill. The Council finds that, as proposed, the facility satisfies the WCCP, Section XV, Goal 8, Policy 1.

Policy 2: Develop and maintain a variety of recreational sites and open spaces adjacent to population concentrations to adequately meet the County’s recreational needs.

Implementation D: Aesthetic values in existing and future recreational sites should be preserved and enhanced.

ASC Exhibit R includes a study of the potential impacts that may occur to the scenic and aesthetic resources in the vicinity of the proposed facility, and Exhibit T includes a study of the potential impact to recreational areas. The visibility analysis indicates that some components of the proposed facility may be visible from existing recreational sites, including limited locations
within the CRGNSA and along portions of the Deschutes River and associated hiking and multi-
use trails. No future recreation sites where the facility would be visible have been identified.

The facility is proposed to be located to minimize any visual impacts to these scenic and
recreational resources. The locations within the CRGNSA from where the turbines will be visible
are not generally accessible to the public. The turbines are proposed to be painted flat gray or
off-white, in order to blend in to the surrounding landscape. The Council finds that subject to
compliance with the proposed mitigation measures discussed in Sections IV.E (Protected Areas),
IV.I (Scenic Resources) and IV.J (Recreation) to comply with the standards discussed in Exhibits
R and T, the facility satisfies WCCP Section XV, Goal 8, Policy 2.

Goal 9 – Economy of the State

To diversify and improve the economy of Wasco County.

Policy 1: Maintain agriculture and forestry as a basis of the County’s rural economy.

The proposed facility will benefit the local economy by providing stable revenue for
participating landowners, who will receive lease payments for the use of their land. At the same
time, the relatively small permanent loss of land for agricultural purposes will result in a minimal
impact on farming activities. The farm survey submitted by the applicant indicates that the area
farmers do not believe that construction of the proposed facility will interfere with current
farming practices and that it will primarily affect the movement of vehicles. The Council finds
that, as proposed, the facility satisfies the WCCP, Section XV, Goal 9, Policy 1.

Policy 2: Commercial and industrial development compatible with the County’s agricultural and
forestry based economy will be encouraged.

The proposed facility is consistent with the purposes of the EFU, A-1 zone, which allows
for the development of commercial utility facilities as a conditional use. The facility will have a
minimal impact on the operation of the farms in the area, and the property owners have
voluntarily agreed to the location of the proposed facility on their land. The facility will not
impact any forest-zoned property. The Council finds that the proposed facility satisfies the
WCCP, Section XV, Goal 9, Policy 2.

Policy 3: Wasco County will support the expansion and increased productivity of existing
industries and firms as a means to strengthen local and regional economic development.

Development of the proposed facility expands an existing regional industry (wind power
generation) into Wasco County. Through lease payment to landowners, the facility will provide a
stable long-term income for the farming operation, compared to current revenues from
agricultural products that can fluctuate significantly on a seasonal basis, often depending on
weather and worldwide conditions outside of the farm operator’s control.

The proposed facility will benefit the local economy in the short term by providing short-
term construction-related employment, as described in Exhibit U. Facility construction is
anticipated to take about seven months and employ an estimated 250 workers at peak construction
periods. The applicant has represented that preference will be given to local workers when feasible. The Council finds that, as proposed, the facility satisfies the WCCP, Section XV, Goal
9, Policy 3.

Goal 11 – Public Facilities and Services

To plan and develop a timely, orderly and efficient arrangement of public facilities and
services to serve as a framework for urban and rural development.
Policy 1: Provide an appropriate level of fire protection, both structural and wildfire, for rural areas.

As discussed above with regard to compliance with and WCLUDO Section 5.020(C) and WCLUDO Chapter 10, ASC, Exhibit U identifies the fire and emergency service providers covering the analysis area. There are several fire departments located in the vicinity of the proposed facility that could respond in the event of an emergency, but all are staffed by volunteers and, given the rural nature of the area, can take some time to respond. Federal and state agencies such as United States Forest Service (USFS), BLM, or Oregon Department of Forestry (ODF) also provide fire suppression, and additional support is available from other adjacent fire protection districts, the closest being the City of Dufur. Generally, landowners are the first responders for fires and rely on available farm equipment, mainly 100-gallon water tanks placed in the back of trucks, for fire suppression.

The City of Dufur Fire and Ambulance Service is the first responder in the event of a structural fire and/or medical emergency, although the department does not have the training or equipment for rope rescue operations. Exhibit U addresses this need and provides measures to reduce the potential for fires related to the proposed facility. In addition, the applicant proposes to have trained staff and appropriate equipment on-site to respond to events, such as high angle rescue, that cannot be handled by the fire departments. The Council finds that, subject to compliance with the site certificate conditions discussed in Section IV.K (related to Public Health and Safety Standards) and Section V.C (related to Public Services), the proposed facility satisfies the WCCP, Section XV, Goal 9, Policy 1.

Policy 3: Minimize adverse impacts resulting from power line corridor and utility development.

Implementation:

A. The Bonneville Power Administration should compensate for damage resulting from powerline corridor development at levels based on the loss of agricultural and residential values and productivity.

B. When economically and physically feasible, transmission lines should be laid underground.

C. The Planning Commission and Citizen Advisory Groups should review all future Bonneville Power Administration power line corridor developments which may be routed through Wasco County, as well as all electrical substation and power plant development proposals.

D. Public utility easements and transmission line corridors should be designed to provide for multiple land use.

E. Maximum utilization of existing utility right-of-way should be encouraged to minimize the need for additional rights-of-way.

F. Public utilities shall be responsible for appropriate maintenance including noxious weed control on all existing and future rights-of-way.

These policies are intended to minimize impacts from transmission corridor development. Subsections A and C do not apply, because development of the proposed facility will not require BPA to develop new corridors. The proposed transmission line will be constructed by the applicant on private right-of-way obtained by the applicant from willing landowners, who will be compensated for use of their property and any loss of agricultural income.
SUMMIT RIDGE WIND FARM
FINAL ORDER

The topography of area between the facility substation and the BPA interconnection point located east of the facility is composed of flat or rolling agricultural land interspersed with deep valleys, preventing the transmission line from being located underground. No alternative location that would allow for underground transmission lines exists that is either physically or economically feasible, as required by subsection (B), which can provide a direct route from the substation to the interconnection point because the transmission lines runs generally east/west, while the deeper valley runs in a north/south direction.

The proposed transmission line right-of-way is 150 feet wide across private land, not public land; therefore (D), does not apply. Where feasible, agricultural uses will be preserved within the right-of-way to minimize impacts to existing agricultural operations and reduce the amount of land taken out of production. There is no existing public right-of-way in the vicinity of the proposed facility that can be used for the proposed feeder transmission line as described in (E). The proposed easement on private land is approximately five miles shorter than the closest route available along public right-of-way. The shorter line minimizes visual impacts and power losses, reduces the amount of land needed for the proposed facility, improves the transmission line’s efficiency, and locates it away from residential areas. The Council finds that the proposed facility satisfies WCCP Section XV, Goal 11, Policy 1.

Goal 12 – Transportation

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

Policy 1: Develop and maintain an adequate County road system.

As discussed in further detail with regard to compliance with WCLUDO Section 5.020(C), the proposed facility will use several public roads during the facility’s construction and operation and, where necessary, will improve the roadbed to accommodate construction equipment. There are no projected impacts to the County road system as a result of construction of the proposed facility. Private roads will remain private and be used exclusively by the applicant or landowner. The Council finds that, as proposed, the facility satisfies the WCCP, Section XV, Goal 12, Policy 1.

Goal 13 – Energy Conservation

To conserve energy.

Policy 1: The County will work with appropriate State and Federal agencies to identify and protect, and if feasible, develop potential energy resources, especially renewable energy resources.

This policy refers to coordination between Wasco County and state and federal agencies and is not directly applicable to the proposed facility. The policy does identify, however, the importance that Wasco County places on developing renewable energy resources within the county boundaries. The proposed facility supports this goal by developing an energy facility that is renewable, sustainable, and nonpolluting. To the extent it establishes approval criteria, the Council finds that, as proposed, the facility satisfies the WCCP, Section XV, Goal 13, Policy 1.

Policy 2: Reduce the consumption of non-renewable sources of energy whenever possible.

Implementation:

A. Conversion of energy sources from non-renewable sources to renewable sources shall be encouraged.
B. The allocation of land and uses permitted on the land should seek to minimize the
depletion of non-renewable sources of energy.

The proposed facility is a renewable wind resource generating facility, and while it does not propose to convert nonrenewable energy sources to renewable energy, the facility will provide additional capacity from renewable energy sources thereby reducing the need for non-renewables, such as coal and fossil fuels. During construction, nonrenewable energy will be used, primarily from fossil fuels. However, when operational, the facility will require little nonrenewable energy to operate, needing only limited supplies of fuel for maintenance vehicles. The Council finds that the proposed facility satisfies the WCCP, Section XV, Goal 13, Policy 2.

Policy 5: Use of renewable energy shall be encouraged.

Implementation

A. Wind generators will be permitted in the forestry, agricultural and rural zones.

The proposed facility is a wind power generation facility, and is located entirely within the A-1 zoning district, consistent with this policy. The Council finds that the proposed facility satisfies the WCCP, Section XV, Goal 13, Policy 5.

IV.D.1.b. State Standards—Oregon Revised Statutes

ORS 215.275 (Utility Facilities necessary for public service)

The 230 kV transmission feeder line that is proposed to serve the facility is a “utility facility” for purposes of ORS 215.275, which may be located on EFU land only if it is determined to be “necessary for public service.” WCLUDO Section 3.210(J)(8) directly and fully implements ORS 215.275. The findings of compliance with WCLUDO Section 3.201(J)(8) also fully establish compliance with all requirements of ORS 215.275. The Council finds that the proposed transmission feeder line is a “utility facility that is necessary for public service” and, therefore, allowed under ORS 215.275.

ORS 215.283 (Uses permitted in exclusive farm use zones)

Compliance with ORS 215.283 is addressed above with regard to compliance with Goal 3 of the country’s comprehensive plan, which also requires compliance with ORS 215.283. As explained above, the Council determines that all components of the facility other than the 230 kV transmission feeder line constitute a “Commercial utility facility[y] for the purpose of generating power for public use by sale” for purposes of ORS 215.283(2)(g); and that the findings of compliance with WCLUDO 3.210(3)(14), which also establish compliance with OAR 660-033-0130(37), establish that the proposed wind generation facility is allowed under ORS 215.283(2)(g).

Also as explained above, the Council determines that the 230 kV transmission feeder line constitutes “[utility facilities necessary for public service]” for purposes of ORS 215.283(1)(c), which is permitted subject to compliance with ORS 215.275; and that the findings of compliance with WCLUDO 3.210(J)(8), which also establish compliance with ORS 215.275, establish that the proposed transmission feeder line is allowed under ORS 215.283(1)(c).

ORS 215.296 (Standards for approval of certain uses in exclusive farm use zones)

ORS 215.296 requires that a use allowed under ORS 215.283(2) must be reviewed to ensure that the use will not:
“(a) Force a significant change in accepted farm or forest practices on surrounding lands
devoted to farm or forest use; or

(b) Significantly increase the cost of accepted farm or forest practices on surrounding
lands devoted to farm or forest use.”

WCLUDO Section 5.020(J) and (K) directly implement these provisions and, therefore,
the findings of compliance with Section 5.020(J) and (K) equally establish compliance with
ORS 215.296. The Council finds that as proposed, and as established in the findings of
compliance with Sections 5.020(J) and (K), and subject to the conditions imposed to ensure
compliance with those sections, the facility satisfies ORS 215.296.

IV.D.1.c. State Standards—Oregon Administrative Rules

OAR 660-033-0130(37) Wind energy Siting Standards for the Protection of Farmland

Wasco County has fully implemented the requirements of OAR 660-033-0130(37)
verbatim in the WCLUDO, as Section 3.210(J)(17). The requirements of this section have
been addressed above in the findings of compliance with Section 3.210(J)(17). As discussed
with regard to findings of compliance with WCLUDO Section 3.210(J)(17), the Council
finds that the proposed facility satisfies the requirements of OAR 660-033-0130(37), subject to
conditions described in those findings.

IV.D.2 LAND USE: SITE CERTIFICATE CONDITIONS

Based on the review of the information provided in the ASC and other evidence in the record,
and to ensure compliance with the requirements of the Land Use Standard, including the applicable
substantive criteria of the Wasco County Land Use and Development Ordinance (WCLUDO), the
Council includes the following conditions in the site certificate:

IV.D.2.1 The height of the proposed Operations and Maintenance building shall not exceed 35
feet. [Site Certificate Condition 6.21] [In accordance with WCLUDO Section 3.210(F)(2)]

IV.D.2.2 Signage for the proposed facility shall conform to the following requirements:

(a) The certificate holder shall install the following signs at the facility:

i. “No Trespassing” signs shall be attached to any perimeter fence;

ii. “Danger” signs shall be posted at the height of five feet on turbine towers
and accessory structures;

iii. A sign shall be posted on the tower showing an emergency telephone
number; and

iv. Manual electrical and/or overspeed shutdown disconnect switch(es) shall be
clearly labeled.

[Site Certificate Condition 6.22.a] [In accordance with WCLUDO Section 19.030(C)(7)]

(b) Signage installed in accordance with Condition IV.D.2.2(a) shall meet the following
requirements:

i. Permanent signs shall not project beyond the property line.

ii. Signs shall not be illuminated or capable of movement.

iii. Permanent signs shall describe only uses permitted and conducted on the
property on which the sign is located.

iv. Freestanding signs shall be limited to twelve square feet in area and 8 feet in
height measured from natural grade. Signs on buildings are permitted in a
ratio of one square foot of sign area to each linear foot of building frontage
iv. Freestanding signs shall be limited to one at the entrance of the property. Up to one additional sign may be placed in each direction of vehicular traffic running parallel to the property if they are more than 750 feet from the entrance of the property.

vi. Signs on buildings shall be limited to one per building and only allowed on buildings conducting the use being advertised.

[Site Certificate Condition 6.22.2[b] in accordance with WCLUDO Section 3.210(F)(4)]

IV.D.2.4 Prior to commencement of construction, the certificate holder shall ensure that participating landowners obtain a Farm-Forest Management Easement. The landowner is required to sign and record in the deed records for the county a document binding the landowner, and the landowner’s successors in interest, prohibiting them from pursuing a claim for relief or cease of action alleging injury from farming or forest practices for which no action or claim is allowed under ORS 30.936 or 30.937. [Site Certificate Condition 5.3] [In accordance with WCLUDO section 3.210(F)]

IV.D.2.5 The certificate holder shall be responsible for restoring, as nearly as possible, to its former condition any agricultural land and associated improvements that are damaged or otherwise disturbed by the siting, maintenance, repair or reconstruction of the facility. [Site Certificate Condition 6.24] [In accordance with WCLUDO Section 3.210(J)(9)(c)]

IV.D.2.6 The certificate holder shall consult with area landowners and lessees during construction and operation of the facility and shall implement measures to reduce or avoid any adverse impacts to farm practices on surrounding lands and to avoid any increase in farming costs. [Site Certificate Condition 6.25] [In accordance with WCLUDO Sections 5.020(3) and 5.020(9)]

IV.D.2.7 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. [Site Certificate Condition 6.12] [In accordance with WCLUDO Section 3.210(3)(17)(5)]

IV.D.2.8 Prior to the start of construction the certificate holder shall obtain approval of a Revegetation and Weed Control Plan [Exhibit 1 to this Order] by the Wasco County Weed Department to control the introduction and spread of noxious weeds, and shall implement that approved plan during all phases of construction and operation of the facility. [Site Certificate Condition 5.6] [In accordance with WCLUDO Section 3.210(J)(17)(5)]

IV.D.3 LAND USE: CONCLUSIONS OF LAW

Based on the foregoing findings, and subject to compliance with the site certificate conditions, the Council finds that the proposed facility complies with all applicable substantive criteria from Wasco County except WCLUDO Sections 19.030(C)(3)(a) and (F)(1)(b); and that the proposed facility otherwise complies with the applicable provisions of the statewide planning goals, in
accordance with ORS 469.504(1)(b)(B). The Council finds that the proposed facility complies with OAR 660-033-0130(37) and with all applicable state statutes.
IV.E. PROTECTED AREAS [OAR 345-022-0040]

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

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

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

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

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

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

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

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

(h) State parks and byways as listed by the Oregon Department of Parks and Recreation and the Willamette River Greenway;

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

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

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

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

(m) Agricultural experimental stations established by the College of Agriculture, Oregon State University, including but not limited to:
Coastal Oregon Marine Experiment Station, Astoria
Mid-Columbia Agriculture Research and Extension Center, Hood River
Agriculture Research and Extension Center, Hermiston
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1 Columbia Basin Agriculture Research Center, Pendleton
2 Columbia Basin Agriculture Research Center, Moro
3 North Willamette Research and Extension Center, Aurora
4 East Oregon Agriculture Research Center, Union
5 Malheur Experiment Station, Ontario
6 Eastern Oregon Agriculture Research Center, Burns
7 Eastern Oregon Agriculture Research Center, Squaw Butte
8 Central Oregon Experiment Station, Madras
9 Central Oregon Experiment Station, Powell Butte
10 Central Oregon Experiment Station, Redmond
11 Central Station, Corvallis
12 Coastal Oregon Marine Experiment Station, Newport
13 Southern Oregon Experiment Station, Medford
14 Klamath Experiment Station, Klamath Falls;

(n) Research forests established by the College of Forestry, Oregon State University,
including but not limited to McDonald Forest, Paul M. Dumm Forest, the Bledgett Tract
in Columbia County, the Spaulding Tract in the Mary’s Peak area and the Marchel
Tract;

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

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

IV.E.1 PROTECTED AREAS: FINDINGS OF FACT

Exhibit L of the ASC includes the applicant’s discussion of potential impacts to protected
areas. The analysis area for the Protected Areas standard is the area within the site boundary and
20 miles from the site boundary, including areas outside the state. The proposed facility would
not be located within any protected area designated under OAR 345-022-0040(1). The table
below (“Protected Areas Within 20 Miles of the Facility”) shows the protected areas identified by
the applicant, a reference to the applicable subparagraph of OAR 345-022-0040(1), the
approximate distance from the site boundary, the direction of each protected area from the
proposed facility and the state in which each area is located.

The applicant has assessed the potential impacts to each of these protected areas from noise,
traffic, water use, wastewater disposal, and visibility of the facility components.
<table>
<thead>
<tr>
<th>Protected Area</th>
<th>345-022-0040(1) Subparagraph Reference</th>
<th>Distance (Miles)</th>
<th>Facility visible?</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botanical/Scenic Areas within Columbia Gorge ACEC 165</td>
<td>(c)</td>
<td>15.8</td>
<td>No</td>
<td>OR</td>
</tr>
<tr>
<td>Columbia Hills (Horseshit Lake) State Park</td>
<td>(h)</td>
<td>11.8</td>
<td>No</td>
<td>WA</td>
</tr>
<tr>
<td>Doug's Beach State Park</td>
<td>(h)</td>
<td>14.8</td>
<td>No</td>
<td>WA</td>
</tr>
<tr>
<td>John Day Federal Wild and Scenic River</td>
<td>(k)</td>
<td>18.4</td>
<td>No</td>
<td>OR</td>
</tr>
<tr>
<td>John Day State Scenic Waterway</td>
<td>(k)</td>
<td>18.4</td>
<td>No</td>
<td>OR</td>
</tr>
<tr>
<td>JS Burres State Recreation Site (BLM)</td>
<td>(h)</td>
<td>20.0</td>
<td>No</td>
<td>OR</td>
</tr>
<tr>
<td>Lower Klickitat Federal Wild and Scenic River</td>
<td>(k)</td>
<td>18.3</td>
<td>No</td>
<td>WA</td>
</tr>
<tr>
<td>Maryhill State Park</td>
<td>(h)</td>
<td>12.4</td>
<td>No</td>
<td>WA</td>
</tr>
<tr>
<td>Mayer State Park</td>
<td>(h)</td>
<td>18.1</td>
<td>No</td>
<td>OR</td>
</tr>
<tr>
<td>Memaloose State Park</td>
<td>(h)</td>
<td>19.8</td>
<td>No</td>
<td>WA</td>
</tr>
<tr>
<td>Tom McCall Preserve ACEC</td>
<td>(o)</td>
<td>17.4</td>
<td>No</td>
<td>OR</td>
</tr>
<tr>
<td>White River Falls State Park</td>
<td>(h)</td>
<td>9.1</td>
<td>No</td>
<td>OR</td>
</tr>
<tr>
<td>Badger Creek Wilderness Area</td>
<td>(c)</td>
<td>18.7</td>
<td>Limited</td>
<td>OR</td>
</tr>
<tr>
<td>Deschutes River State Recreation Area</td>
<td>(h)</td>
<td>9.0</td>
<td>Limited</td>
<td>OR</td>
</tr>
<tr>
<td>Heritage Landing (Deschutes) State Park</td>
<td>(h)</td>
<td>9.1</td>
<td>Limited</td>
<td>OR</td>
</tr>
<tr>
<td>John Day Wildlife Refuge</td>
<td>(d)</td>
<td>17.4</td>
<td>Limited</td>
<td>OR</td>
</tr>
<tr>
<td>White River Federal Wild and Scenic River</td>
<td>(k)</td>
<td>8.5</td>
<td>Limited</td>
<td>OR</td>
</tr>
<tr>
<td>White River State Wildlife Area</td>
<td>(p)</td>
<td>11.0</td>
<td>Limited</td>
<td>OR</td>
</tr>
<tr>
<td>Columbia Basin Agriculture Research Area</td>
<td>(m)</td>
<td>6.9</td>
<td>Yes</td>
<td>OR</td>
</tr>
<tr>
<td>Columbia Hills Natural Area Preserve</td>
<td>(l)</td>
<td>14.4</td>
<td>Yes</td>
<td>WA</td>
</tr>
<tr>
<td>Columbia River Gorge National Scenic Area</td>
<td>(g)</td>
<td>7.2</td>
<td>Yes</td>
<td>OR, WA</td>
</tr>
<tr>
<td>Deschutes Federal Wild and Scenic River</td>
<td>(k)</td>
<td>0.6</td>
<td>Yes</td>
<td>OR</td>
</tr>
<tr>
<td>Deschutes State Scenic Waterway</td>
<td>(k)</td>
<td>0.8</td>
<td>Yes</td>
<td>OR</td>
</tr>
<tr>
<td>Lower Deschutes Wildlife Area</td>
<td>(p)</td>
<td>2.0</td>
<td>Yes</td>
<td>OR</td>
</tr>
</tbody>
</table>

**Noise Impacts.** Noise generated by operation of the facility is analyzed in Exhibit X of the application. The facility is expected to comply with the DEQ noise control regulations (see the discussion at Section VI.A of this Order). Based on the noise modeling presented in Exhibit X, noise from facility operations is not expected to exceed the standard for “quiet areas.”

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165 ACEC = Area of Critical Environmental Concern

167 The standard for “quiet areas” (defined in OAR 340-035-0015) is the lowest allowable statistical noise level shown on Table 9, incorporated by reference in OAR 340-035-0035(1)(c). OAR 340-035-0025 defines “quiet area” as any land or facility designated by the [Environmental Quality] Commission as an appropriate area where the qualities of serenity, tranquility and quiet are of extraordinary significance and serve
produced during construction is exempt from the “quiet area” regulation under OAR 340-035-0035(5)(g), but construction noise is not likely to result in any significant adverse impacts because of the distance of the facility from most protected areas. The Council finds that noise generated during construction and operation of the proposed facility would not result in a significant adverse impact to any protected area.

**Traffic Impacts.** The proposed primary and alternate transportation routes for construction and operational traffic are described in Exhibit U of the ASC. The transportation routes do not pass through any protected areas, with the exception of U.S. Interstate Highway I-84 through the Columbia River Gorge National Scenic Area (CRGNSA). Temporary impacts such as short term traffic delays on U.S. 197 and local roads may temporarily affect access to protected areas related to the Deschutes River. Other protected areas are located at such distances that they would be unaffected by increased traffic.

Traffic demands on local roads and highways in the vicinity of the facility are low, and any effects during Summit Ridge construction are expected to be temporary and negligible, and will not adversely affect protected areas. The facility would have up to 26 employees upon operation, resulting in negligible traffic impacts.

The Council finds that facility-related road use during construction and operation of the proposed facility would not result in a significant adverse impact to any protected area.

**Water Use and Wastewater Disposal.** Facility water use would be temporary, relatively small in volume, and predominantly limited to the construction period. During construction of the facility, water would be trucked in from the City of The Dalles primarily for dust suppression and concrete-making. During operation of the proposed facility, water use would be primarily for normal domestic purposes at the O&M building. The water for the O&M facility would be supplied from an on-site well, as discussed in Section VLC of this Order. No impacts to protected areas are expected from on-site water use.

Sanitary wastewater would be discharged to a permitted on-site septic system, and stormwater would infiltrate on site. No water used on the site would be discharged into wetlands or other adjacent resources and no impact to protected areas is expected.

The Council finds that water use and disposal during construction and operation of the proposed facility would not result in a significant adverse impact on water quantity or water quality within any protected area.

**Visual Impacts.** During construction, dust suppression measures would reduce the potential for visible dust clouds. Wind energy facilities have no emissions to affect air quality or visibility during facility operation. However, the visibility analysis of the current proposed turbine layout conducted by the applicant and described in Exhibit L indicates that portions of the facility may be visible from limited areas of the Badger Creek Wilderness Area, Deschutes River State Recreation Area (DRSRA), Heritage Landing State Park, John Day Wildlife Refuge, White River Federal Wild and Scenic River, and White River State Wildlife Area. The facility would be visible from limited, isolated rims of the White River Canyon and John Day River Canyon, but not from the rivers themselves. Field investigations and photo interpretation suggest vegetation would substantially screen views of the facility from these protected areas, and viewing distances of eight miles or more would also negate impacts.

The protected areas with the greatest potential for visual impacts are discussed further below.
Columbia River Gorge National Scenic Area (CRGNSA)

Based on the applicant’s visibility analysis, much of the CRGNSA from which turbines are visible is not publicly accessible, as there are limited roads and most land is privately-owned. The portions of the CRGNSA from which turbines will not be visible include I-84, the Historic Columbia River Highway, Rowena Plateau and Nature Conservancy Viewpoint, and the Columbia River.

The most likely locations from which turbines might be visible occur along Washington State Route 14 in the vicinity of Wishram, WA, at a distance of over 12 miles. The applicant’s analysis suggests the facility would be subordinate to the landscape, which already includes significant man-made development. Interstate and rail transportation corridors, transmission corridors, radio and cellular telephone towers, urban and rural development, and extensive wind turbine development are present in fore- and middle-ground views. Summit Ridge turbines would be visible in the background of these altered views, and are not expected to adversely impact the CRGNSA.

FOCG argues that the visibility of the facility from Washington State Route 14 precludes compliance with this standard, as it relates to the CRGNSA. FOCG’s arguments are addressed in Section IV.I. (Scenic Resources) and for the reasons explained with regard to that standard, FOCG has not established that the visibility from that highway precludes compliance with this standard.

Columbia Hills Natural Area Preserve

The Columbia Hills Natural Area Preserve is located within the CRGNSA, and is managed for rare plant habitat rather than scenic quality. Summit Ridge would be visible at a distance of over fourteen miles—it is not expected to adversely impact the preserve or interfere with its management objectives.168

Columbia Basin Agricultural Research Center

The Columbia Basin Agricultural Research Center is located in Moro, Oregon, at a distance of over six miles, and is not managed for scenic quality. Summit Ridge is not expected to adversely impact the research center or interfere with its management objectives.

Lower Deschutes River Canyon

The Lower Deschutes River Canyon includes the Deschutes Federal Wild and Scenic River, Deschutes State Scenic Waterway, and Lower Deschutes Wildlife Area. The applicant’s visibility analysis and visual simulations show that with the current facility design, turbines will be visible from various locations along the river. It is possible that several of the visible turbines will also be equipped with lighting required by the Federal Aviation Administration (FAA) and will visually impact the night sky as seen from the river level. Generally, views of turbines will be limited to views of turbine rotor blades at distances of two or more miles, and while turbines would be visible from the river level, they would not dominate views, would be subordinate to the surrounding landscape, and, thus, would not result in significant adverse visual impacts to the Deschutes River Canyon.

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168 FOCG claims that the applicant did not include the Columbia Hills State Park in the Protected Areas analysis (SRW-0133, p. 11). The applicant included Columbia Hills State Park in its analysis (see Final ASC, Table L-1), but the proposed facility is almost 12 miles away and will not be visible from the park. See also, Final ASC, Exhibit L.
FOCG argues that the visibility of the facility from areas within the Deschutes River State Scenic Waterway precludes compliance with this standard, as it relates to the Lower Deschutes River Canyon. FOGC’s arguments are addressed at IV.E.1.b.ii (Scenic Resources), and for the reasons explained with regard to that standard, FOGC has not established that the visibility from that area precludes compliance with this standard.

**IV.E.2 PROTECTED AREAS: SITE CERTIFICATE CONDITIONS**

The Council is not requiring additional site certificate conditions specifically related to compliance with the Protected Areas standard.

**IV.E.3 PROTECTED AREAS: CONCLUSIONS OF LAW**

Based on the foregoing findings, the Council finds that the proposed facility is not located in any protected area listed in OAR 345-022-0040 and that the design, construction, and operation of the proposed facility are not likely to result in significant adverse impact to any protected area in compliance with the Protected Areas Standard.
IV.F. RETIREMENT AND FINANCIAL ASSURANCE [OAR 345-022-0050]

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

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

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

IV.F.1 RETIREMENT AND FINANCIAL ASSURANCE: FINDINGS OF FACT

IV.F.1.a. Restoration of Site Following Cessation of Construction or Operations

Exhibits M and W of the ASC address the Council’s Retirement and Financial Assurance standard, which requires the Council to find that the facility site can be restored to a useful, non-hazardous condition at the end of the facility’s useful life. For the purpose of the standard, a “useful, non-hazardous condition” is a condition consistent with the applicable local comprehensive land use plan and land use regulations. The proposed Summit Ridge is located on land zoned Exclusive Farm Use (EFU).\(^{169}\) To satisfy the standard, the applicant must show that the site can be restored to a non-hazardous condition suitable for agricultural use. The proposed wind facility is designed for a life of 20 years, with an estimated useful life of 30 years.\(^{170}\)

Restoring the site to a useful, non-hazardous condition upon retirement will involve dismantling and removing all aboveground structures. Nacelles and rotors would be removed from turbines, and the turbine towers dismantled. Pad-mounted transformers and related aboveground equipment would be removed. Concrete turbine tower and transformer pads and underground foundations would be removed to a minimum depth of three feet below grade. Gravel or crushed rock would be removed from adjacent turbine pad areas. The Operations and Maintenance (O&M) building would be removed (or, at the request of the landowner, the building might be converted to farm use). All aboveground 230 kV and 34.5 kV transmission lines, Supervisory Control and Data Acquisition (SCADA) communication lines, and support structures would be removed. Underground transmission lines and communication cables that are at least three feet below grade would be left in place.\(^{171}\)

All excavated areas would be backfilled with topsoil and the surface topography would be blended with adjacent areas. The affected areas, including areas temporarily disturbed during site restoration activities, would be replanted with native plant seed mixes or agricultural crops, as appropriate, based on the use of surrounding lands. Demolition waste material would be transported for disposal at authorized sites. For the purposes of the site restoration cost estimate, the Department assumes that facility access roads would be removed, except those roads that existed prior to facility construction. Road areas would be restored with topsoil, graded and replanted with native plant seed mixes or agricultural crops, as appropriate. Access roads might be left in place based on landowner preference.

Small quantities of lubricants, vehicle fuel, and coolant might be transported over and across the site during facility retirement. Given the small amounts of such materials used on the site,

\(^{169}\) Final ASC, Section K.4, p. 6 and Figure K-1.

\(^{170}\) Final ASC, Section W.2, p. 1.

\(^{171}\) 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.
significant soil contamination is unlikely. The applicant would drain these materials from each turbine and properly dispose of fluids prior to dismantling turbines. The applicant has proposed implementation of a monitoring plan to ensure proper fluid removal and recycling, to the extent possible. Conditions IV.F.2.3, IV.F.2.4, IV.F.2.5, and IV.F.2.6 (see Section IV.F.2) are conditions required by Council rule to be included in all site certificates. These conditions require the applicant to prevent the development of any conditions on the site that would preclude restoration of the site and to submit a retirement plan to the Council for review and approval upon cessation of construction or operations at the site.

The Council finds that the actions necessary to restore the site as described above are feasible and that restoration of the site to a useful, non-hazardous condition could be achieved.

IV.F.1.b. Estimated Cost of Site Restoration

OAR 345-022-0050(2) addresses the possibility that the certificate holder is unable or unwilling to restore the site upon permanent cessation of construction or operation of the facility. A bond or letter of credit provides a site restoration remedy to protect the State of Oregon and its citizens if the certificate holder fails to perform its obligation to restore the site. The bond or letter of credit must remain in force until the certificate holder has fully restored the site. The applicant estimated that the total site restoration cost in 2nd quarter 2010 dollars would be approximately $5.540 million if the maximum number of 2.3-MW turbines (87) are installed at the facility. The applicant’s estimate for 2.3-MW turbines from Table W-1a of the ASC is reproduced below:

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172 The Department’s site restoration estimates assume that the cost of clean-up of any contamination from minor spills would be covered by contingency amount built into the cost estimation guide.

173 Final ASC, Section W.6, p. 4

174 Final ASC, Table W-1a
<table>
<thead>
<tr>
<th>Cost Estimate Component</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disconnect electrical and ready for disassembly (per turbine)</td>
<td>57</td>
<td>$1,010</td>
<td>$67,870</td>
</tr>
<tr>
<td>Remove turbine blades, hubs and nacelles (per turbine)</td>
<td>57</td>
<td>$16,754</td>
<td>$322,584</td>
</tr>
<tr>
<td>Remove turbine towers (per net ton of steel)</td>
<td>16,744</td>
<td>$65.35</td>
<td>$1,095,764</td>
</tr>
<tr>
<td>Remove and load transformers (per turbine)</td>
<td>87</td>
<td>$1,700</td>
<td>$147,500</td>
</tr>
<tr>
<td>Foundation and transformer pad removal (per cubic yard of concrete)</td>
<td>257</td>
<td>$32.66</td>
<td>$8,461.9</td>
</tr>
<tr>
<td>Restore turbine pads (per turbine)</td>
<td>57</td>
<td>$1,200</td>
<td>$69,300</td>
</tr>
<tr>
<td>Mast Towers</td>
<td>3</td>
<td>$2,540</td>
<td>$7,620</td>
</tr>
<tr>
<td>Dismantle and dispose of mast towers (per tower)</td>
<td>1</td>
<td>$20,000</td>
<td>$70,000</td>
</tr>
<tr>
<td>Substations and O&amp;M Facility</td>
<td>1</td>
<td>$100,000</td>
<td>$100,000</td>
</tr>
<tr>
<td>Dismantle and dispose of substations (each)</td>
<td>1</td>
<td>$20,000</td>
<td>$20,000</td>
</tr>
<tr>
<td>Dismantle and dispose of O&amp;M Facility</td>
<td>1</td>
<td>$100,000</td>
<td>$100,000</td>
</tr>
<tr>
<td>Transmission Line</td>
<td>4,360</td>
<td>$1,61</td>
<td>$7,066</td>
</tr>
<tr>
<td>Removal of 34.5 kV underground transmission line (per LF)</td>
<td>8</td>
<td>$5,300</td>
<td>$42,400</td>
</tr>
<tr>
<td>Junction boxes - remove electrical to 4 feet below grade (each)</td>
<td>76</td>
<td>$1,362</td>
<td>$102,512</td>
</tr>
<tr>
<td>Access Roads</td>
<td>19</td>
<td>$47,383</td>
<td>$856,997</td>
</tr>
<tr>
<td>Road removal, grading and seeding (per mile)</td>
<td>100</td>
<td>$6,754</td>
<td>$57,400</td>
</tr>
<tr>
<td>Temporary Areas</td>
<td>100</td>
<td>$6,754</td>
<td>$57,400</td>
</tr>
<tr>
<td>Restore area disturbed during restoration work (per acre), including: laydown areas adjacent to each W/TG tower; central laydown areas; areas adjacent to meteorological towers; areas adjacent to access roads for crane path; areas adjacent to and corridors disturbed in the course of dismantling 220 kV transmission line towers; and, areas of temporary disturbance associated with each roadway turnaround required for facility restoration.</td>
<td>100</td>
<td>$6,754</td>
<td>$57,400</td>
</tr>
<tr>
<td>General Costs</td>
<td>1</td>
<td>$222,221</td>
<td>$222,221</td>
</tr>
<tr>
<td>Permits, mobilization, engineering, overhead, utility disconnects (unit cost)</td>
<td>1</td>
<td>$222,221</td>
<td>$222,221</td>
</tr>
<tr>
<td>SUBTOTAL</td>
<td></td>
<td>$4,571,079</td>
<td></td>
</tr>
<tr>
<td>Performance Bond %</td>
<td>10%</td>
<td>$457,117</td>
<td></td>
</tr>
<tr>
<td>GROSS COST</td>
<td></td>
<td>$4,416,962</td>
<td></td>
</tr>
<tr>
<td>Administration and Project Management</td>
<td>10%</td>
<td>$461,679</td>
<td></td>
</tr>
<tr>
<td>Future Developments Contingency</td>
<td>10%</td>
<td>$461,679</td>
<td></td>
</tr>
<tr>
<td>Total Site Restoration Cost</td>
<td></td>
<td>$5,849,147</td>
<td></td>
</tr>
<tr>
<td>Total Site Restoration Cost (rounded to nearest $1,000)</td>
<td></td>
<td>$5,840,000</td>
<td></td>
</tr>
</tbody>
</table>
The applicant used the Department’s “Facility Retirement Cost Estimating Guide” (2005) to estimate the site restoration costs. The applicant states that “Certain unit cost factors shown on these spreadsheets were revised upwards to more adequately reflect the conditions of this Facility.”

Estimates were based on removal of 87 turbines and ancillary equipment; three meteorological towers; one substation; one O&M facility; eight miles of 230 kV transmission line; 76 junction boxes; 4,350 feet of underground line; and restoration of 19 miles of roads and 100 acres of temporarily impacted areas.

To assess the reasonableness of the applicant’s cost estimate, the Department conducted its own estimate of the retirement costs, consistent with conservative restoration costs reflecting the maximum design flexibility requested by the applicant. The Department estimated the total site restoration cost (for 2.3-MW turbines, the “worst-case” cost) including administration, project management, and contingency adjustments, to be $6.965 million in 3rd quarter 2010 dollars.

The Department’s estimate for removal of 2.3-MW turbines is higher than the applicant’s estimate of $5.540 million. The difference in the estimates is due to differences in several key components of the estimate, including tower removal and general costs. Other differences are due to the more conservative assumptions used by the Department. For example, the Department assumed that the maximum amount of overhead collector lines would be installed aboveground (up to 10% of the total length), and that the temporary impact acreage for the actual decommissioning would be higher than that assumed by the applicant. Prior to construction it is expected that the applicant will submit a new cost estimate and bond or letter of credit based on the final facility design. The Department must review and approve the applicant’s estimate for reasonableness prior to the start of construction (see Condition IV.F.2.1) and will work with the applicant at that time to resolve differences.

The Council finds that the Department’s estimate of $6.965 million is a reasonable estimate to restore the Summit Ridge site to a useful, non-hazardous condition.

**IV.F.1.c. Ability of the Applicant to Obtain a Bond or Letter of Credit**

OAR 345-022-0050(2) requires the Council to decide whether the applicant has a reasonable likelihood of obtaining a bond or letter of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-hazardous condition. Based on the Department’s calculation of the likely cost of site restoration, the Council finds the value of the financial assurance bond or letter of credit for restoring the site of the proposed Summit Ridge facility would not exceed $6.965 million (3rd Quarter 2010 dollars) adjusted annually as described in Condition IV.F.2.1.

The applicant provided information about its financial capability in Exhibits D and M of the application. The applicant will provide a financial assurance bond or letter of credit in a form approved by the Council before beginning construction of the facility. The applicant has provided a letter from Bank of America stating that it has sufficient available letter of credit capacity to support a request for a letter of credit in the amount of $9 million. The letter does not constitute a firm commitment from the bank to issue the letter of credit, but it is evidence of a reasonable likelihood the applicant could obtain the necessary financial assurance.

It is customary for a performance bond to contain provisions allowing the surety to complete construction of a project in order to reduce its potential liability. Accordingly, when the certificate holder elects to use a bond to meet the financial assurance requirements and the surety retains the right to complete construction, operate, or retire the energy facility, the Council requires the certificate holder to ensure that the surety has agreed to comply with all applicable

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175 Final ASC, Section W.5, p.3
176 Final ASC, Attachment M-2
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statutes, Council rules and site certificate conditions. In addition, the Council requires that the
surety seek Council approval before commencing construction, operation or retirement
activities. These requirements are included in Condition IV.F.2.2.

The Council finds that the applicant has demonstrated a reasonable likelihood of obtaining a
bond or letter of credit in an amount sufficient to cover the estimated site restoration costs.

IV.F.2 RETIREMENT AND FINANCIAL ASSURANCE: SITE CERTIFICATE CONDITIONS

Based on the review of the information provided in Exhibits D and M and other evidence in the
record, and to ensure compliance with the Retirement and Financial Assurance Standard, the Council
includes the following conditions in the site certificate:

IV.F.2.1 Before beginning construction, the certificate holder shall submit to the State of Oregon
through the Council a bond or letter of credit in the amount described herein naming the
State of Oregon, acting by and through the Council, as beneficiary or payee. The initial
bond or letter of credit amount is either $6,965 million (in 3rd Quarter 2010 dollars), to
be adjusted to the date of issuance as described in (b), or the amount determined as
described in (a). The certificate holder shall adjust the amount of the bond or letter of
credit on an annual basis thereafter as described in (b).

(a) The certificate holder may adjust the amount of the bond or letter of credit based
on the final design configuration of the facility and turbine types selected. Any
revision to the restoration costs should be adjusted to the date of issuance as
described in (b), and is subject to review and approval by the Department.

(b) The certificate holder shall adjust the amount of the bond or letter of credit, using
the following calculation and subject to approval by the Department:

i. Adjust the Subtotal component of the bond or letter of credit amount
(expressed in 3rd Quarter 2010 dollars) to present value, using the U.S.
Gross Domestic Product Implicit Price Deflator, Chain-Weight, as
published in the Oregon Department of Administrative Services “Oregon
Economic and Revenue Forecast” or by any successor agency (the
“Index”) and using the 3rd Quarter 2010 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 3rd Quarter 2010 dollars to present value.

ii. Add 1 percent of the adjusted Subtotal (i) for the adjusted performance
bond amount to determine the adjusted Gross Cost.

iii. Add 10 percent of the adjusted Gross Cost (ii) for the adjusted
administration and project management costs and 10 percent of the
adjusted Gross Cost (ii) for the adjusted future developments contingency.

iv. Add the adjusted Gross Cost (ii) to the sum of the percentages (iii) and
round the resulting total to the nearest $1,000 to determine the adjusted
financial assurance amount.

(c) The certificate holder shall use a form of bond or letter of credit approved by the
Council.

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

(e) The certificate holder shall describe the status of the bond or letter of credit in the
annual report submitted to the Council required by Condition VII.4.
(f) The bond or letter of credit shall not be subject to revocation or reduction before 
retirement of the facility site.

[Site Certificate Condition 14.1] [Mandatory Condition OAR 345-027-0020(8)]

IV.F.2.2 If the certificate holder elects to use a bond to meet the requirements of Condition 
IV.F.2.1, the certificate holder shall ensure that the surety is obligated to comply with the 
requirements of applicable statutes, Council rules and this site certificate when the surety 
exercises any legal or contractual right it may have to assume construction, operation or 
retirement of the energy facility. The certificate holder shall also ensure that the surety is 
obligated to notify the Council that it is exercising such rights and to obtain any Council 
approvals required by applicable statutes, Council rules and this site certificate before the 
surety commences any activity to complete construction, operate or retire the energy 
facility. [Site Certificate Condition 14.2]

IV.F.2.3 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. 
[Site Certificate Condition 14.3] [Mandatory Condition OAR 345-027-0020(9)]

IV.F.2.4 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, non-hazardous 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.

[Site Certificate Condition 14.4] [Mandatory Condition OAR 345-027-0020(9)]

IV.F.2.5 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 shall notify the certificate holder and request that the certificate holder submit a 
proposed final retirement plan to the Department within a reasonable time not to exceed 
90 days. If the certificate holder does not submit a proposed final retirement plan by the 
specified date, the Council may direct the Department to prepare a proposed final 
retirement plan for the Council's approval.

[Site Certificate Condition 14.5] [Mandatory Condition OAR 345-027-0020(16)]

IV.F.2.6 Upon the Council’s approval of the final retirement plan, the Council may draw on the 
bond or letter of credit submitted per the requirements of Condition IV.F.2.1 to restore 
the site to a useful, non-hazardous condition according to the final retirement plan, in 
addition to any penalties the Council may impose under OAR Chapter 345, Division 29. 
If the amount of the bond or letter of credit is insufficient to pay the actual cost of 
retirement, the certificate holder shall pay any additional cost necessary to restore the site 
to a useful, non-hazardous condition. After completion of site restoration, the Council 
shall issue an order to terminate the site certificate if the Council finds that the facility has 
been retired according to the approved final retirement plan.

[Site Certificate Condition 14.6] [Mandatory Condition OAR 345-027-0020(16)]
IV.F.3 RETIREMENT AND FINANCIAL ASSURANCE: CONCLUSIONS OF LAW

Based on the foregoing findings, and subject to compliance with the site certificate conditions, the Council finds that the proposed Summit Ridge site, taking into account mitigation, can be restored adequately to a useful, non-hazardous condition following permanent cessation of construction or operation of the facility. The Council finds that the applicant has a reasonable likelihood of obtaining a bond or letter of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-hazardous condition.

Based on these findings and the site certificate conditions described herein, the Council concludes that the proposed facility complies with the Retirement and Financial Assurance Standard.
IV.G. FISH AND WILDLIFE HABITAT [OAR 345-022-0060]

OAR 345-022-0060

To issue a site certificate, the Council must find that the design, construction and operation of the facility, taking into account mitigation, are consistent with the fish and wildlife habitat mitigation goals and standards of OAR 635-415-0025 in effect as of September 1, 2000.

In OAR 635-415-0025, ODFW has defined six categories of habitat in order of value to wildlife. The rule establishes mitigation goals and corresponding implementation standards for each habitat category. The habitat definitions are as follows.\(^{177}\)

"Habitat Category 1" is irreplaceable, essential habitat for a fish or wildlife species, population, or a unique assemblage of species and is limited on either a physiographic province or site-specific basis, depending on the individual species, population or unique assemblage.

The mitigation goal for Category 1 habitat is to have no loss of either habitat quantity or quality. This goal requires avoidance of impacts.

"Habitat Category 2" is essential habitat for a fish or wildlife species, population, or unique assemblage of species and is limited either on a physiographic province or site-specific basis depending on the individual species, population or unique assemblage.

If impacts are unavoidable, the mitigation goal for Category 2 habitat is to have no net loss of either habitat quantity or quality and provision of a net benefit of habitat quantity or quality. The Council interprets this to mean that both habitat quantity and quality must be preserved and either habitat quantity or habitat quality must be improved. To achieve this goal, impacts must be avoided or unavoidable impacts must be mitigated through "reliable in-kind, in-proximity" habitat mitigation to achieve no net loss of either pre-development habitat quantity or quality.\(^{178}\) In addition, a net benefit of habitat quantity or quality must be provided.

"Habitat Category 3" is essential habitat for fish and wildlife, or important habitat for fish and wildlife that is limited either on a physiographic province or site-specific basis, depending on the individual species or population.

The mitigation goal for Category 3 habitat is to have no net loss of either habitat quantity or quality. The Council interprets this to mean that both habitat quantity and quality must be preserved. The goal is achieved by avoidance of impacts or by mitigation of unavoidable impacts through "reliable in-kind, in-proximity" habitat mitigation to achieve no net loss in either pre-development habitat quantity or quality.

\(^{177}\) The ODFW rules define habitat into two broad classifications of "essential" and "important." OAR 635-415-0005(3) defines "essential habitat" as "any habitat condition or set of habitat conditions which, if diminished in quality or quantity, would result in depletion of a fish or wildlife species." OAR 635-415-0005(11) defines "important habitat" as "any habitat recognized as a contributor to sustaining fish and wildlife populations on a physiographic province basis over time."

\(^{178}\) OAR 635-415-0005(12) defines "in-kind habitat mitigation" as habitat mitigation measures that "recreate similar habitat structure and function to that existing prior to the development action." OAR 635-415-0005(13) defines "in-proximity habitat mitigation" as follows: "habitat mitigation measures undertaken within or in proximity to areas affected by a development action. For the purposes of this policy, 'in proximity to' means within the same home range, or watershed (depending on the species or population being considered) whichever will have the highest likelihood of benefiting fish and wildlife populations directly affected by the development." OAR 635-415-0005(29) defines "reliable method" as "a mitigation method that has been tested in areas with site factors similar to those affected by a development action and the area in which the mitigation action is being proposed and that has been found (e.g., through field trials, demonstration projects or scientific studies) to produce the habitat effects required to meet the mitigation goal for that action."
"Habitat Category 4" is important habitat for fish and wildlife species.

Like Category 3, the mitigation goal for Category 4 habitat is to have no net loss in either existing habitat quantity or quality. The Council interprets this to mean that both habitat quantity and quality must be preserved. The goal is achieved by avoidance of impacts or by mitigation of unavoidable impacts. In contrast to Category 3, mitigation options are less constrained and may involve "reliable in-kind or out-of-kind, in-proximity or off-proximity" habitat mitigation to achieve no net loss in either pre-development habitat quantity or quality.

"Habitat Category 5" is habitat for fish and wildlife having high potential to become either essential or important habitat.

The mitigation goal for Category 5 habitat is to provide a "net benefit in habitat quantity or quality." ODFW interprets the "net benefit" goal in the context of Category 5 as requiring "some improvement in habitat quantity or quality." To clarify the "net benefit" goal, ODFW has advised: "The improvement in habitat quantity or quality achieved need not rise to the level of improvement required to meet a goal of "no net loss" (i.e. the level required or recommended in the Mitigation Policy for Habitat Categories 2, 3, and 4)." The goal is achieved by avoidance of impacts or by mitigation of unavoidable impacts through "actions that contribute to essential or important habitat." 

"Habitat Category 6" is habitat that has low potential to become essential or important habitat for fish and wildlife.

The mitigation goal for Category 6 habitat is to minimize impacts. The goal is achieved by actions that minimize direct habitat loss and avoid impacts to off-site habitat.

IV.G. I Fish and Wildlife Habitat: Findings of Fact

The applicant addresses the Council’s Fish and Wildlife Habitat standard in Exhibit P of the Final Application for Site Certificate (ASC). Additional information concerning evidence of the applicant’s ability to meet mitigation compliance requirements was included in Exhibit D of the ASC. The following sections describe the habitat categories and wildlife species that occur (or have the potential to occur) within the analysis area for the proposed facility (IV.G.1.a), the potential fish and wildlife impacts of construction and operation of the facility (IV.G.1.b), the mitigation and monitoring plans proposed by the applicant (IV.G.1.c), and consistency with ODFW goals and standards (IV.G.1.d).

IV.G.1.a. Habitat Categories and Wildlife Species within the Project Analysis Area

IV.G.1.a.i. Habitat Categories within the Project Analysis Area

The applicant provided information about compliance with the Habitat Standard in Exhibit P of the application. As established by the Project Order, the study area for potential fish and wildlife habitat impacts is the area within the site boundary and the area within ½-mile of the site boundary. To identify the habitat characteristics of the proposed Summit Ridge site, Northwest Wildlife Consultants, Inc (NWC) performed initial habitat delineation with global positioning system equipment using 1-meter orthophotos. NWC confirmed these delineations in May and June 2009 and made necessary corrections at that time. Wildlife habitat subtypes within the proposed site boundary were delineated based on differences in vegetation type and structure and were designed to

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179 Letter from ODFW to ODOE re: Habitat Categorization and Mitigation, January 24, 2008 (SRW-0141)
180 OAR 635-415-0025(5)(b)
181 SRW-0020, p. 17
182 Final ASC, Section P.3.1, p. 4 and Attachment P-1
be consistent with the six habitat categories described above.\textsuperscript{183} A total of 5,515.47 acres of habitat were categorized within the site boundary.

**Category 1 Habitat.** No Category 1 habitat was identified by the applicant or ODFW within the proposed project area.\textsuperscript{184}

**Category 2 Habitat (1.3% of total acreage).** Category 2 habitat in the analysis area comprises shrub-steppe consisting of two sub-types: big sagebrush shrub-steppe and rabbitbrush/buckwheat shrub-steppe. There are approximately 70 acres of Category 2 shrub-steppe habitat within the proposed project site.

The big sagebrush shrub-steppe habitat subtype is characterized as having 20-70% cover of basin big sagebrush with lesser amounts of rubber rabbitbrush sometimes present. Vegetation in the understory is largely non-native, due primarily to persistent disturbance from livestock grazing. The general high structural diversity and ecological integrity of the proposed site’s big sagebrush habitats provides valuable cover, nesting and foraging habitat for numerous wildlife species. The relatively intact big sagebrush shrub-steppe habitat in the northern portion of the lease area (shown in the Final ASC, Figure P-2) supplies the highest quality potential habitat for loggerhead shrike, vesper sparrow, and Brewer’s sparrow.\textsuperscript{185}

The rabbitbrush/buckwheat shrub-steppe subtype is characterized by highly variable vegetative cover, species composition, and structural diversity. In the northern portion of the lease area, where these shrublands occur on moderately deep soils, overall vegetation cover is fairly high (50-80%), with well developed shrub, grass, and forb layers. In the south of the lease area, where soils are thin and rocky, these shrublands have much lower overall vegetative cover (30-60%). While shrub species still dominate here, these shrubs are nearly all buckwheats and “other sub-shrubs” less than one foot in height.

In areas with deeper soils and lower impacts from grazing, the grass and forb layers are similar to those in the surrounding native grasslands. In areas exposed to heavy domestic livestock grazing, the grass and forb layers are more similar to those in adjacent exotic annual grasslands, with exotic invasives such as cheatgrass, medusa-head rye, and bulbous bluegrass the dominant species. The grass and forb layers in areas with stony, shallow soils, while naturally sparse, are generally dominated by native dryland plants such as Sandberg’s blue grass, squirrel-tail grass, wild onion and a wide variety of other forb species. Ecological conditions range from poor, in disturbed areas dominated by weedy exotics, to fair or good in more intact native-dominated communities. These areas are used for foraging, cover, and nesting by horned larks, western meadowlarks, and vesper sparrows, among others.\textsuperscript{186}

**Category 3 habitat (27.8% of total acreage).** The applicant identified approximately 1,500 acres of Category 3 habitat within the proposed project site. The Category 3 habitat present consists of five habitat subtypes: revegetated grassland, native perennial grassland, riparian shrubland/woodland, rabbitbrush/buckwheat shrubsteppe, and surface water (ponds).

Of these habitat subtypes, the largest is revegetated grassland, which accounts for almost half of the Category 3 acreage. Revegetated grasslands consist of a species mix of bluebunch wheatgrass, intermediate wheatgrass, crested wheatgrass, Sandberg’s bluegrass, and big bluegrass. Sweet clover and alfalfa, nitrogen-fixing perennial forbs, are also a common element in some of these revegetated

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\textsuperscript{183} Final ASC, Attachment P-1, p. 6  
\textsuperscript{184} Final ASC, Table P-3  
\textsuperscript{185} Final ASC, Section P.3.1.2, p. 13  
\textsuperscript{186} Final ASC, Section P.3.1.2, pp. 13-14
plant communities. Older plantings (>10 years) may have significant cover of native species such as rubber rabbitbrush, lupine and common yarrow. Invasive grasses and forbs including cheatgrass, bulbous bluegrass, prickly lettuce, and tall tumble mustard were noted on some younger, less-established plantations and in harsher areas within older plantings. Revegetated grasslands, especially older, well-established plantings with some shrub cover, can have moderate wildlife use value, offering nest, cover, and forage habitat for some grassland birds, including western meadowlark, vesper sparrow, grasshopper sparrow, savannah sparrow, and Brewer’s sparrow, as well as year-round cover and forage for northern harriers, small mammals, and mule deer. 

The remaining Category 3 habitat is split between the Rabbitbrush/buckwheat shrub-steppe (similar to the type described above in the discussion of Category 2 habitat) and native perennial grasslands. Native perennial grassland occurs throughout the lease area on moderate to relatively steep canyon slopes. The ecological condition of these grasslands is generally poor to fair with localized remnant patches that are in good to excellent condition. Native perennial grasslands are characterized by relatively consistent, high cover of the taller stature bluebunch wheatgrass and shorter stature Sandberg’s bluegrass. Some areas have apparently been subjected to localized and sparse supplementary seeding with the non-native species intermediate wheatgrass and crested wheatgrass. Native grasslands may provide important, high-quality nesting, cover, and foraging habitat for numerous bird and small mammal species. 

Riparian shrubland/woodland (about four acres) and some small ponds make up the remaining fraction of the Category 3 habitat. The ponds appear to have been created as domestic livestock water sources by forming earthen barriers in the bottoms of draws. While man-made, these water sources are an important late-season resource for many wildlife species and are often key stopover locations for migrating passerines and migrating and resident birds.

The riparian shrubland/woodland subtype is confined to the narrow bottoms of draws usually having limited seasonal water. The most common vegetation elements here are riparian shrub species such as rose, chokecherry, blue elderberry, willows, pacific serviceberry, and oceanspray. This type is closely associated with, and often intermixed with, the riparian woodland habitat type. These habitats, while very limited in area, provide important foraging, nesting, and cover for both bats and residential and migratory birds.

**Category 4 Habitat (28.5% of total area).** There are approximately 1,600 acres of Category 4 habitat present on the site, comprised of two subtypes identified as “old field” and “exotic annual” grassland. The old field subtype is represented by formerly cultivated areas that have been abandoned and are naturally revegetating. These areas include a minor component of native species, but are primarily occupied by invasive species. These areas offer marginal foraging habitat for common species such as horned lark and western meadowlark and would likely require significant effort to be restored to native-like habitat.

Exotic annual grasslands within the lease area have developed as the result of past agricultural disturbance and/or intensive domestic livestock use, often compounded by the effects of wildfire. These areas are colonized primarily by non-native, invasive species. Significant populations of an Oregon “B List” Noxious Weed, broadleaf pepperweed (Lepidium latifolium), were noted along Summit Ridge Road, in the center of the lease area. Ecological disruption within these exotic-
dominated communities is so severe that recovery of native plant communities is not likely to occur
naturally. Wildlife use value within these areas is generally minimal, although annual invasive
grasses may have forage value early in the season. 192

**Category 5 Habitat.** No Category 5 habitat was identified within the proposed project area.

**Category 6 Habitat (42.4% of total area).** The applicant identified approximately 2,300 acres of
Category 6 habitat, comprising the subtypes “road,” “farmyard or residence,” and “dryland
wheat/small grain.” The road subtype consists of gravel or paved roads that are not expected to have
a high habitat value for any species. 193 The farmyard or residence subtype consists of areas containing
residences, outbuildings, corrals, and adjacent pasture land. These are landscapes that are expected to
remain in a disturbed state, but can provide nesting and roosting areas for species including bats,
American kestrels, great-horned owls, and barn owls. 194 The dryland wheat/small grain subtype
consists of actively farmed, non-irrigated small grain cropland and also includes fallow fields
expected to reenter active crop production in the near future. This habitat subtype is highly disturbed
and generally will not supply significant habitat for any special status wildlife or plants now or in the
foreseeable future. However, raptors were observed hunting in this subtype, and horned larks will
forage and nest in these areas, particularly when in fallow condition. 195

**IV.G.I.a.ii. Plants and Wildlife within the Project Analysis Area**

The applicant gathered information from the United States Fish and Wildlife Service (USFWS)
and the Oregon Biodiversity Information Center (ORBIC, formerly the Oregon Natural Heritage
Information Center) to identify plant and wildlife species listed or considered as special status species
likely to be present within the site boundary and within five miles from the site boundary. 196 The
applicant also reviewed plant and wildlife studies from nearby wind projects, including the proposed
Golden Hills project, and the Klondike I, II, and III, Hay Canyon, Biglow Canyon, and Leaning
Juniper wind facilities. 197 The applicant discovered 22 records of 12 special status plant and wildlife
species within the search area of the area proposed to contain turbines.

The 12 species include special status species as rare species tracked by ORBIC and comprise one
avian species, two fish species, seven invertebrate species, and two plant species. The avian species
noted was State Candidate Lewis’s woodpecker; one record of 100 individuals in one location was
documented, but habitat appropriate for the Lewis’s woodpecker is not present within the project
boundary. 198 All fish, avian, and invertebrate records were located near the Deschutes River and do
not occur within the proposed project area, except the record for the Lewis’s woodpecker, which
occurs partially within the proposed project area. 199

Nine records of special status plant and wildlife species were reported within the proposed
transmission line area. These include three fish species (six records), one invertebrate species, and
one plant species (two records). The invertebrate record was Columbia dusksnail. Both rare plant
records were of Hood River milk-vetch. 200

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192 Final ASC, Section P.3.1.2, p. 12
193 Final ASC, Section P.3.1.2, p. 12
194 Final ASC, Section P.3.1.2, p. 11
195 Final ASC, Section P.3.1.2., p. 11
196 Final ASC, Section P. 5, p. 15 and Attachments P-2 and P-3
197 Final ASC, Section P.2., p. 2
198 Final ASC, Section P-2, p. 2 and Attachment P-2
199 Final ASC, Section P.2, p. 2
200 Final ASC, Section P.2, pp. 2-3
The applicant engaged NWC to conduct plant and wildlife surveys at the proposed Summit Ridge site. In June 2009, NWC performed special-status plant and wildlife surveys along the proposed turbine strings, in addition to a bat inventory performed in July, August and September 2009. NWC performed special-status plant and wildlife surveys for the proposed transmission line area in May 2010. These surveys identified eight special status avian species and up to seven special status mammal species. No special status plant species were detected in the project area. The avian species identified were bald eagle, ferruginous hawk, Swainson’s hawk, loggerhead shrike, long-billed curlew, grasshopper sparrow, and golden eagle. In addition, NWC detected yellow-breasted chat, a federal species of concern, during surveys of the proposed transmission corridor. Mammal species detected were white-tailed jackrabbit, pallid bat, hoary bat, silver-haired bat, Western small-footed myotis, and either California myotis or Yuma myotis, or both.

NWC conducted avian use surveys in spring and summer 2005 and in winter, spring, summer and fall of 2009, completing all proposed avian use surveys. NWC also performed raptor nest surveys in May 2009 and May 2010 for the proposed project site and transmission line area, respectively. A grassland bird displacement study was also conducted at the request of ODFW to begin to assess whether grassland birds are displaced by construction and operation of wind generation facilities.

IV.G.1.a.iii. Sensitive Wildlife Species in the Analysis Area

ODFW has established a list of “Sensitive Species.” Under OAR 635-100-0040, a wildlife species is eligible to be included on the Sensitive Species list if “its numbers are declining at a rate such that it may become eligible for listing as a threatened species” or if “its habitat is threatened or declining in quantity or quality such that it may become eligible for listing as a threatened species.” There are four categories of Sensitive Species: “Critical” (species for which listing as Threatened or Endangered is pending or may be appropriate if immediate conservation actions are not taken), “Vulnerable” (species for which listing as Threatened or Endangered is not believed to be imminent and can be avoided through continued or expanded use of adequate protective measures and monitoring), “Peripheral or Naturally Rare” (peripheral species are species whose Oregon populations are on the edge of their range; naturally rare species have had low population numbers historically in Oregon because of naturally limiting factors), and “Undetermined Status” (scientific study is needed to determine if the species is susceptible to population decline and qualified for Threatened, Endangered, Sensitive - Critical or Sensitive - Vulnerable status).

The table below (“Sensitive Wildlife Species Observed”) lists Sensitive Species that have been observed within or near the Summit Ridge site boundary. The table also indicates the federal status of the species, if applicable.

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201 Final ASC, Section P.5, pp. 15-16 and Attachment P-1 Addendum (Summit Ridge Wildlife Species Survey of the Proposed Transmission Line, NWC, June 30, 2010)

202 Final ASC, Section P.5, pp. 16-17. Because the calls of the California myotis and the Yuma myotis are difficult to distinguish, both are listed as observed.

203 Final ASC, Table P-1 and Attachment P-1
### Sensitive Wildlife Species Observed

<table>
<thead>
<tr>
<th>Species</th>
<th>Federal Status</th>
<th>State Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Birds</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ferruginous hawk (Buteo regalis)</td>
<td>Species of Concern (SoC) and Birds of Conservation Concern</td>
<td>Sensitive – Critical (SC)</td>
</tr>
<tr>
<td>Bald eagle (Haliaeetus leucocephalus)</td>
<td>Birds of Conservation Concern, Bald and Golden Eagle Protection Act</td>
<td>State Threatened (ST)</td>
</tr>
<tr>
<td>Swainson’s hawk (Buteo swainsoni)</td>
<td>None</td>
<td>State Sensitive – Vulnerable (SV)</td>
</tr>
<tr>
<td>Loggerhead shrike (Lanius ludovicianus)</td>
<td>BCC</td>
<td>SV</td>
</tr>
<tr>
<td>Long-billed curlew (Numenius americanus)</td>
<td>BCC</td>
<td>SV</td>
</tr>
<tr>
<td>Grasshopper sparrow (Ammomimus savannarum)</td>
<td>None</td>
<td>SV</td>
</tr>
<tr>
<td>Golden eagle (Aquila chrysaetos)</td>
<td>Birds of Conservation Concern, Bald and Golden Eagle Protection Act</td>
<td>None</td>
</tr>
<tr>
<td>Yellow-breasted chat (Icteria virens)</td>
<td>SoC</td>
<td>None</td>
</tr>
<tr>
<td><strong>Mammals</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White-tailed jackrabbit (Lepus townsendii)</td>
<td>None</td>
<td>SV</td>
</tr>
<tr>
<td>Pallid bat (Arctocephalus pallidus pacificus)</td>
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<td>SV</td>
</tr>
<tr>
<td>Hoary bat (Lasius cinereus)</td>
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<td>SV</td>
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<tr>
<td>Silver-haired bat (Lasionycteris noctivagans)</td>
<td>SoC</td>
<td>SV</td>
</tr>
<tr>
<td>Small-footed myotis (Myotis ciliolabrum)</td>
<td>SoC</td>
<td>None</td>
</tr>
<tr>
<td>Yuma myotis(^{204}) (Myotis yumanensis)</td>
<td>SoC</td>
<td>None</td>
</tr>
</tbody>
</table>

**IV.G.1.b. Fish and Wildlife Impacts**

To identify the habitat impacts for the likely facility configuration, the applicant estimated the habitat impacts of the “current layout,” as shown in the table below (“Habitat Impacts”).\(^{203}\) The table also shows the total acreage of each habitat subtype within the 400-foot wildlife and habitat survey corridors surrounding all project facilities within the site boundary.\(^{206}\) For the purpose of the habitat impact assessment, the applicant designed a “worst-case layout” which assumes the maximum possible affected area for the proposed facility footprint.\(^{207}\)

\(^{204}\) Either the Yuma myotis, or California myotis, or both, were detected. The calls of these two species are very difficult to distinguish. The California myotis does not have any special status.

\(^{205}\) Based on Final ASC, Table P-3

\(^{206}\) Final ASC, Section P.1, p. 1

\(^{207}\) Final ASC, Section P.7.1, p. 22
### Habitat Impacts

<table>
<thead>
<tr>
<th>Category and Habitat Description</th>
<th>Acres Within Survey Corridors</th>
<th>Temporary Impact (Acres)</th>
<th>Permanent Impact (Acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category 1 (None found)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Category 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big Sagebrush Shrub-Steppe</td>
<td>69.62</td>
<td>0.37</td>
<td>0.43</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>69.62</td>
<td>0.37</td>
<td>0.43</td>
</tr>
<tr>
<td><strong>Category 3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revegetated Grassland</td>
<td>703.23</td>
<td>18.00</td>
<td>11.08</td>
</tr>
<tr>
<td>Native Perennial Grassland</td>
<td>406.13</td>
<td>6.89</td>
<td>2.96</td>
</tr>
<tr>
<td>Riparian Shrublands/Woodlands</td>
<td>4.23</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Rabbitbrush/Buckwheat Shrub-Steppe</td>
<td>417.6</td>
<td>3.34</td>
<td>3.39</td>
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<td>Surface Water (Pond)</td>
<td>0.17</td>
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<td>0</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td>1,531.36</td>
<td>28.03</td>
<td>17.43</td>
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<td><strong>Category 4</strong></td>
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<tr>
<td>Developed (Old Agricultural Field)</td>
<td>57.09</td>
<td>0.67</td>
<td>0.63</td>
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<td>Exotic Annual Grassland</td>
<td>1,517.16</td>
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<td>18.26</td>
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<td><strong>Subtotal</strong></td>
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<td>18.89</td>
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<td><strong>Category 5 (None found)</strong></td>
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<td><strong>Category 6</strong></td>
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<td>Developed Dryland Wheat</td>
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<td>Developed Farmyard/Residence</td>
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<td>0</td>
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<tr>
<td>Developed Roadway</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td>2,340.24</td>
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<tr>
<td><strong>Total Area</strong></td>
<td>5,515.47</td>
<td>99.52</td>
<td>82.02</td>
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</table>

### IV.G.1.b.i. Construction Impacts

Construction of the proposed Summit Ridge facility will result in permanent loss of wildlife habitat (during the life of the facility) for the area occupied by facility components. The applicant has calculated the maximum impact of the proposed facility at a permanent loss of 36.75 acres of habitat in Categories 2 through 4, rated as “important” or “essential” to wildlife species. Permanent loss of Category 6 habitat would amount to 43.27 acres. Altogether, the permanent footprint of facility components occupies 82.02 acres of habitat in all categories, of which roughly 55 percent will occur on Category 6 habitat areas. The micrositing area is approximately 5,515 acres in size, and roughly 1.3 percent of the land within this boundary will be permanently impacted.208

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208 Final ASC, Table P-3
The use of laydown areas during construction, widening of roads, trenching for underground collector lines and other ground-disturbing construction activities will result in temporary impacts. The applicant estimates that temporary impacts will affect 48.16 acres of “important” or “essential” wildlife habitat (Categories 2 through 4). The applicant estimates that temporary disturbance of Category 6 habitat is estimated to affect 51.36 acres. The applicant’s total estimate of temporarily impacted areas for all habitat categories is 99.52 acres. Under Condition IV.G.2.1, the certificate holder must provide to the Department a description of the final design layout of facility components and an assessment of the affected habitat before beginning construction. The actual habitat impacts will then be determined according to the final layout.

Some areas of temporary disturbance will be heavily affected by construction, resulting in loss of vegetation and heavy soil compaction. In other areas, the construction impacts will be lighter, resulting in crushed (but viable) vegetation and less soil compaction. Although the certificate holder will be required to restore the areas of temporary disturbance, the habitat would be in a degraded condition for the period after completion of construction activities until restoration success is achieved. The Department refers to this period as a “temporal impact” on habitat quality resulting from facility construction.

In addition to direct habitat disturbance, potential impacts to wildlife include fatalities or injuries as a result of incidental strikes by construction equipment. Because large construction equipment, such as cranes, will be stationary move slowly across the site for much of the time, there is likely to be a low risk of avian and bat fatalities from such equipment. There could be an increased risk of avian fatalities from destruction of nest sites for ground-nesting species, unless nesting habitat is avoided during construction. Construction will increase the volume of truck and small vehicle traffic on roads throughout the site, increasing the risk that vehicles could strike wildlife resulting in injuries or death. Construction activity and noise could cause wildlife to avoid nearby habitat areas and could affect breeding and fledging success.

In May 2009, 23 active raptor nests were identified within the proposed Summit Ridge site boundary and a 2-mile buffer outside the site boundary; in May 2010, four active raptor nests were identified within a one-mile corridor centered on the proposed transmission line location. The raptor nest survey performed in 2009 for the proposed project site found a raptor nest density of 0.24 nests per square mile. This density is slightly lower than the average density (0.26) surveyed at comparable wind projects located in the Columbia Plateau Ecoregion. If construction activities are scheduled to occur during the sensitive breeding season for raptors, construction noise and human activity near active nests could adversely affect raptor nesting or fledging success.

### IV.G.1.b.ii. Operation Impacts

There is substantial data on avian and bat mortality at operating wind facilities in the Columbia Plateau Ecoregion, including data for 12 wind projects of 25 MW or greater. The

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209 Final ASC, Table P-3
210 Final ASC, Section P.7.2.1. p. 24
211 Final ASC, Section P.7.2.1. p. 24
212 Final ASC, Section P.6.3, p. 19
213 Final ASC, Section P.7.2, p. 23 and Attachment P-1, Table 15
214 The “Columbia Plateau Ecoregion” is defined in ODFW, Conservation Strategy for Oregon, September 2005. This region is also known as the “Columbia Basin Ecoregion,” as defined in Oregon Natural History Information Center, Rare, Threatened and Endangered Species of Oregon, March 2007.
215 Final ASC, Section P.7.2.1. p. 24
applicant reviewed this data for information on mortality for the species identified at the Summit
Ridge site.

**Birds.** Passerines, often referred to as songbirds, have been the most abundant avian fatality
at wind projects in the Columbia Plateau Ecoregion, comprising >65% of the fatalities overall.\(^{216}\)
Passerines include dozens of species, which generally outnumber other groups (such as raptors),
thus their collision rate may not be out of proportion to their overall relative abundance in the
landscape. A review of avian fatalities at eight new generation projects in the west and Midwest
showed that most fatalities are of horned lark (29.6%), followed by sparrows (13.8%), warblers
(9.2%), upland game birds (8.8%), and <5% for other groups of birds. The overall fatality rate
for birds was approximately three fatalities/MW\(\text{yr}\) in the US. Estimates of passerine fatalities
observed at some newer generation wind power projects in Washington have ranged from
approximately 0.63–2.98 birds/turbine/\(\text{yr}\), although two recently studied wind power facilities
in Oregon (for the Klondike II and Leaning Juniper projects) demonstrated fatality rates of 4.46
birds/turbine/\(\text{yr}\) and 9.13 birds/turbine/\(\text{yr}\).\(^{217}\)

Passerines were the most abundant avian group observed during studies of the Summit
Ridge Wind Power Facility. Species most at risk include those with the highest use of the
proposed project site, including horned lark, western meadowlark, European starling, and
common raven. Horned lark, due to high use of the proposed site and a history of collisions on
the Columbia Plateau, would be the species at greatest risk. Common ravens may have lower
levels of fatalities because they appear far less susceptible to collision than would be expected
based on their level of use. While ravens are usually within the top five most abundant birds
observed at projects and are known to have flight heights in the turbine rotor swept area, very few
have been reported as fatalities at Columbia Plateau wind projects.\(^{218}\) Smaller numbers of
migrant species (i.e. golden-crowned kinglet) and species nesting elsewhere in the region would
likely also be found as fatalities at the proposed Summit Ridge facility based on trends from
regional wind projects such as the recently studied Klondike II, Stateline and Big Horn wind
projects.\(^{219}\)

The applicant addressed the impacts on other species groups, including upland gamebirds,
waterfowl/waterbirds/shorebirds, and species classified as sensitive in Oregon (grasshopper
sparrow, loggerhead shrike, and long-billed curlew). The applicant concluded that there would
not be significant population consequences for these species groups.\(^ {220}\)

**Raptors.** Facilities constructed with newer generation wind turbines cause fewer raptor
fatalities than earlier generation facilities, such as the Altamont Pass project in California, which
experienced a raptor fatality rate almost 25 times greater than eight new generation wind projects
in the midwest and west.\(^ {211}\) Although raptor fatality numbers are lower for newer turbine designs
in general, it appears that there is a correlation between avian use metrics from pre-construction
surveys and raptor fatalities during post-construction surveys.\(^ {222}\)

Overall raptor nest density within the 2009 survey area for the Summit Ridge facility
(turbines plus a 2-mile buffer) was 0.24/\(\text{mi}^2\) (not including turkey vulture and long-eared owl,

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\(^{216}\) Final ASC, Section P.7.2.1, p. 25 and Attachment P-1, Table 14
\(^{217}\) Final ASC, Section P.7.2.1, p. 27
\(^{218}\) Final ASC, Section P.7.2, p. 28 and Attachment P-1, Table 14
\(^{219}\) Final ASC, Section P.7.2.1., p. 28
\(^{220}\) Final ASC, Section P.7.2.1., pp. 28-30 and Section P.7.3, p. 35
\(^{221}\) Final ASC, Section P.7.2.1, p. 25
\(^{222}\) Final ASC, Section P.7.2.1, p. 25
SUMMIT RIDGE WIND FARM
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0.01/mi\(^2\) each, for purposes of comparison), which is roughly equivalent to the average of ten
other wind projects in the region (0.26/mi\(^2\)).\(^{223}\)

Most of the active nests identified in the Summit Ridge study area were greater than \(\frac{1}{4}\) mile
from proposed turbines and permanent access roads. Three active nests were within \(\frac{1}{4}\) mile of
proposed turbines: one each of red-tailed hawk (1,260 feet from proposed turbines), turkey
vulture (1,097 feet from proposed turbines), and common raven (482 feet from proposed
turbines). Four inactive, large nests that might have been constructed by golden eagles were also
identified; these are 3,681 feet (nest in locust tree), and 10,129 feet, 4,915 feet, and 1,017 feet
(cliff nests) from the nearest proposed turbines.\(^{224}\)

Average annual fatality estimates for raptors (including owls) at twelve Columbia Plateau
wind projects range from 0 to 0.21 per MW/year.\(^{225}\) These data may provide a basis for
predicting fatality rates at the proposed Summit Ridge facility. Habitat types identified at the
proposed Summit Ridge site are similar to those found at other Columbia Plateau projects; in
addition, the observed raptor mean use is within the range found at other Columbia Plateau wind
projects.\(^{226}\) American kestrel and red-tailed hawk are estimated to be at the highest risk of
collision at the proposed site because these two species showed the highest mean use estimates at
the proposed site and because these two species are also nesting in the area.\(^{227}\) Sixteen red-tailed
hawk nests were observed during the aerial raptor nest survey and although American kestrel
nests were not documented during surveys, this species was frequently observed using the
proposed site during spring and summer avian use surveys and likely nest on-site.\(^{228}\) These two
raptor species are consistently found as fatalities at other Columbia Plateau wind projects.\(^{229}\)
Turkey vultures are also at risk of collision; one nest was found during the raptor nest survey and
this species was recently documented as a fatality at another wind energy facility in the region.\(^{230}\)

Other diurnal raptor species at risk for collision with turbines at the proposed Summit Ridge
facility based on avian use surveys at the proposed site and history of collision at other Columbia
Plateau sites include rough-legged hawk, northern harrier, prairie falcon, and Cooper’s hawk,
among others.\(^{231}\) Owl species which may be found as casualties based on nest surveys and
collision history at other Columbia Plateau sites include short-eared owl, barn owl, great-horned
owl, and long-eared owl.\(^{232}\)

\(^{223}\) Final ASC, Section P.6.3, p. 19 and Section P.7.2, p. 23
\(^{224}\) Final ASC, Section P.7.2.1, p. 26
\(^{225}\) Final ASC, Section P.7.2.1, p. 26 and Attachment P-1, Table 13. FOCG (SRW-0133, p. 13) cites this
statement to criticize reliance on a study entitled “Avian and Bat Cumulative Impacts Associated with
Wind Energy Development in the Columbia Plateau Ecoregion of Eastern Washington and Oregon,” West,
Inc. (February, 2010) (West Study). FOCG argues that the West Study is not reliable because it is not peer-
reviewed. The rule governing application requirements for the Fish and Wildlife Habitat Standard (OAR
345-021-0010 (1)(p) does not require peer reviewed studies. In addition, nothing in the record indicates
that Table 13 is based on the West Study.
\(^{226}\) Final ASC, Section P.7.2.1, p. 26
\(^{227}\) Final ASC, Sections P.7.2.1, p. 26 and Attachment P-1, Table 6
\(^{228}\) Final ASC, Section P.7.2.1, p. 26
\(^{229}\) Final ASC, Section P.7.2.1, p. 26 and Attachment P-1, Table 14
\(^{230}\) Final ASC, Section P.7.2.1, p. 26
\(^{231}\) Final ASC, Section P.7.2.1, p. 26 and Attachment P-1, Tables 3 and 12
\(^{232}\) Final ASC, Section P.7.2.1, pp. 26-27 and Attachment P-1, Table 14
The applicant analyzed impacts on special status raptor species, including golden eagle, bald eagle, ferruginous hawk and Swainson’s hawk. These species were all identified to be at low or very low risk of collision; collision fatalities are not expected to have a significant impact on populations of these species.  

The golden eagle is not a State-listed or federally-listed threatened or endangered species; nor is it a State Sensitive Species. Golden eagles, however, are protected under the federal Migratory Bird Treaty Act (MBTA) 234 and under the Bald and Golden Eagle Protection Act (BGEPA) 235. Unlike bald eagles, which tend to feed on fish or scavenge, golden eagles are predators and move through the landscape in search of upland prey. Twelve detections of this species were made during avian use studies and while in-transit between survey points. The majority of these detections were of distant birds flying over canyons rather than the ridges where turbines are proposed. The golden eagle is considered to be at low risk of collision. 236 No active nests were found in the analysis area, though four inactive nests likely built by this species were identified. 237

In commenting 238 on the application, USFWS recommended that Lotus Works prepare an Avian and Bat Protection Plan consistent with the Service’s white paper “Considerations for Avian and Bat Protection Plans,” 239 in order to demonstrate compliance with the BGEPA and the MBTA. The USFWS provided information about specific measures for the avian and bat protection plan, including suggested setbacks 240 from golden eagle nests; golden eagle surveys; project design to avoid golden eagle fatalities; and monitoring consistent with USFWS interim protocols. 241 In response to the comments, the applicant has worked with the USFWS to develop an Avian and Bat Protection Plan for the facility 242 to demonstrate compliance with the federal statutes. Implementation of federal requirements will be monitored by the USFWS.

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233 Final ASC, Section P.7.3, pp. 34-35
234 16 USC § 703-712
235 16 USC § 668-668d
236 Final ASC, Section P.7.3, p. 34
237 Final ASC, Section P.6.3, p. 19 and Section P.7.2.1, p. 26
238 SRW-0100. The USFWS protocols are as described in Interim Golden Eagle Technical Guidance: Inventory and Monitoring Protocols; and Other Recommendations in Support of Golden Eagle Management and Permit Issuance (February 2010). USFWS also submitted comments on the Notice of Intent, on July 13, 2009 (SRW-0017). The USFWS did not file comments on the DPO.
239 Considerations for Avian and Bat Protection Plans - USFWS White Paper 2010, July 1, 2010 (SRW-0147)
240 Richard Jolly and Tyler and Leanne Neal, individual commenters, urged the Council to adopt the 6-mile setback addressed in the USFWS comments as a condition of the site certificate. However, USFWS comments do not require a six mile set back, but instead suggest that turbines “proposed closer than six miles to golden eagle nest should not be built” until studies are completed that indicate where golden eagle use occurs. The USFWS suggests that the information will be taken into account during the “micrositing” design process to avoid areas of golden eagle use (SRW-0147).
241 In the Comments, USFWS also urged the Council to delay issuance of the site certificate until the avian and bat protection plan is in place. However, as the applicant correctly points out, the MBTA and the BGEPA do not provide conditions of approval for the site certificate under the Council’s rules (SRW-0120, p. 8-9). Furthermore, ORS 469.370 (9) places a time limit on the Council to decide whether to grant a site certificate. However, the site certificate does not authorize construction or operation of the facility in violation of federal law and the Council expects site certificate holders to fully comply with applicable federal law, which may impose different or additional requirements than the Oregon site certificate.
242 Letter from Nancy Gilbert of the USFWS to LotusWorks regarding the USFWS review of the proposed Summit Ridge Golden Eagle study plan, January 12, 2011 (SRW-0146)
In addition, as noted below, in order to find compliance with the Council’s Fish and Wildlife Habitat Standard, the Council requires a Wildlife Monitoring and Mitigation Plan (WMMP) to ensure that the facility operation complies with the Council’s standard. The WMMP would require the certificate holder to conduct short-term and long-term raptor nest monitoring to determine whether operation of the facility results in a reduction of nesting activity or nesting success in the local populations of golden eagles and other raptors. If monitoring under the WMMP indicates a reduction in nesting success or nest use, the certificate holder will be required to propose and implement additional mitigation. In addition, the WMMP includes two years of fatality monitoring for all avian species at the facility site during operation and provides for additional mitigation if fatality rates for golden eagles (or any individual species) are found to be higher than expected and at a level of biological concern. The WMMP also requires the certificate holder to report to the USFWS on any fatalities of species protected under the Migratory Bird Treaty Act found during fatality monitoring or found anytime by maintenance personnel.

**Bats.** The primary impact to bats is expected to occur through turbine collision; the proposed project is not expected to impact bat roosting habitat or foraging areas. Throughout the Columbia Plateau Ecoregion, fatalities have been primarily silver-haired and hoary bats; data from other Columbia Plateau wind projects show that >96% of bat fatalities were hoary and silver-haired bats, most during fall migration.

Bat mortality numbers at the proposed Summit Ridge facility is expected to fall within the range of fatalities at other Columbia Plateau projects, which was from 0.39 to 2.47/MW/year with a mean of 1.38. Bat species composition of fatalities at the proposed facility will likely be similar to fatalities found at wind projects in the region. Silver-haired and hoary bats (both State Sensitive-Vulnerable) constitute most of the fatalities at regional wind energy projects. Small numbers of other bat species, such as big brown bat, little brown bat, and other unidentified *Myotis* species, have been found at wind projects on the Columbia Plateau and may also be found as fatalities at the proposed Summit Ridge facility.

Predicting impacts to bats is complex and uncertain because the proposed Summit Ridge project is relatively distant from projects in operation for which fatality monitoring has been conducted. However, bat fatalities at the proposed facility are expected to fall within the range of fatalities at other Columbia Plateau wind facilities, and to consist of a similar species composition.

In summary, the applicant has provided estimated turbine-related avian and bat fatality rates for the region, based on data collected at 12 wind energy facilities in the Columbia Plateau Ecoregion. Estimates of the fatalities anticipated to occur at the proposed Summit Ridge facility may be made by applying the mean fatality rates from the applicant’s impacts analysis to the maximum proposed build-out of approximately 200 MW (87 turbines) of generating capacity. The predicted annual avian fatalities at the proposed facility would be approximately 466 birds,

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243 Final ASC, Section P.7.2.2, p. 30
244 Final ASC, Section P.7.2.2, p. 30 and Attachment P-1, Appendix G
245 Final ASC, Section P.7.2.2, p. 31 and Attachment P-1, Table 16
246 Final ASC, Section P.7.2.2, p. 30 and Attachment P-1, Appendix G
247 Final ASC, Section P.7.2.2, p. 31
248 Final ASC, Section P.7.2.2, p. 31
including 20 raptor fatalities, and the predicted annual bat fatalities would be approximately 276 bats.  

IV.G.1.c. Mitigation and Monitoring

The Council has previously approved site certificates for wind energy facilities before the final layout has been decided and the actual habitat impacts are known. This practice has enabled the wind energy industry to obtain construction financing before the final micrositing and design engineering decisions are made. Micrositing considerations include the size of the turbine selected and available for the project, optimization of capture of the wind energy resource, geotechnical factors, avoidance of higher-value wildlife habitat and reduction of adverse impacts on accepted farm practices in the area. The Council follows the same practice for the proposed Summit Ridge facility. Under Condition IV.G.2.1, the certificate holder would provide to the Department a description of the final design layout of facility components and an assessment of the affected habitat before beginning construction. The actual habitat impacts would be determined according to the final layout.

The ODFW goals and standards in OAR 635-415-0025 indicate a preference for avoidance of impacts on habitat in Categories 1 through 5. No Category 1 habitat is located within the proposed project boundaries; therefore there will be no impact to Category 1 habitat.  

The applicant has estimated habitat impacts using a “worst-case” layout; using this layout, the proposed Summit Ridge facility would have both permanent and temporary impacts on habitat in Categories 2, 3, 4 and 6. Approximately 47 percent (84.91 acres) of permanent and temporary impacts would occur on habitat in Categories 2, 3 and 4, and 53 percent (94.63 acres) of the permanent and temporary impacts would occur on Category 6 habitat. The applicant proposes to construct the proposed facility in such a way as to minimize temporary and permanent impacts to higher-quality habitat and to retain habitat cover in the general landscape. The Council includes Condition IV.G.2.2, requiring the applicant to implement design measures to minimize impacts on sensitive wildlife habitat.

IV.G.1.c.i Mitigation of Permanent Impacts

The permanent footprint of the proposed facility would potentially affect habitat in Categories 2, 3, 4 and 6. Category 2 habitat is considered “essential” habitat that is “limited.” The ODFW mitigation goal is “no net loss” of either habitat quality or quantity plus a “net benefit” of quality or quantity. Category 3 and Category 4 habitats are considered “essential” or “important” wildlife habitats, and the ODFW mitigation standard is “no net loss.” Category 6 habitat has “low potential to become essential or important wildlife habitat,” and the ODFW mitigation goal is to minimize impacts.

Reducing the impact on higher-value wildlife habitat necessarily results in an increase in impact on agricultural lands (Category 6 habitat). The Council includes Condition IV.D.2.7, as discussed in Section IV.D (Land Use), which requires the certificate holder to design components of the facility to occupy the minimum area needed for safe operation and to locate components to minimize disturbance of farming practices.

IV.G.1.c.i Mitigation of Temporary Impacts

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249 The Department calculated these estimates by multiplying the maximum generating capacity of the proposed Summit Ridge facility (200 MW) by the mean fatality rates shown in the impacts analysis (Final ASC, Attachment P-1, pp. 26-34) and rounding up to the nearest whole number.

250 Final ASC, Table P-3

251 Final ASC, Section Q.5, p. 7
Habitat in Categories 2, 3 and 4 will be disturbed during construction of the facility. This additional disturbance area is temporary, until successful habitat restoration is achieved.

The Council includes Condition IV.G.2.3, which requires the applicant to minimize temporary construction disturbance by minimizing unnecessary road construction, creating maps of exclusion areas to be provided to contractors, and limiting construction activity to approved and surveyed areas. The applicant proposes to restore habitat temporarily affected by construction activities.\textsuperscript{252} The Council also includes Condition IV.C.2.6, as discussed in Section IV.C (Soil Protection), which requires the certificate holder to restore vegetation in temporarily disturbed areas according to the draft \textit{Revegetation and Weed Control Plan}, incorporated herein as Exhibit 1. As discussed in Section IV.C.1 (related to Soil Protection), both ODFW and the Wasco County Weed Superintendent have reviewed and approved the draft plan.

Restoration of grassland habitats is expected to take two to five years and restoration of shrub-steppe habitats may take much longer.\textsuperscript{253} Until restoration is achieved, there is a reduction in habitat quality compared to the pre-disturbance conditions, which is known as a temporal impact. Mitigation for temporal impacts has been included in the proposed \textit{Habitat Mitigation Plan} (See Exhibit 3).

\textbf{IV.G.I.c.ii. Habitat Mitigation Plan}

The applicant proposes to establish a habitat mitigation area (HMA) to address the permanent impacts to habitat in Categories 2, 3 and 4.\textsuperscript{254} The protected mitigation area would replace wildlife habitat lost due to the footprint of permanent facility components within the facility site and offset the temporal loss of habitat quality due to construction disturbance. The HMA is proposed to include 2 acres of protected habitat for every acre of permanent impact to Category 2 habitat (a 2:1 ratio).\textsuperscript{255} The land in the HMA designated for mitigation of Category 2 impacts must be of Category 2 quality or be capable of enhancement to achieve Category 2 quality within a reasonable time. The HMA would include one acre for every acre of permanent impacts to Category 3 and 4 habitats (a 1:1 ratio). As with the Category 2 mitigation, the portion of the HMA designated as mitigation for Category 3 and 4 impacts would have to currently possess, or be capable of achieving, habitat quality matching the quality category of the land it is serving to mitigate.

The applicant has identified four parcels of land that could potentially be used for habitat mitigation. These parcels are revegetated grasslands of varying quality, which the applicant believes are appropriate for mitigating the habitat expected to be lost and providing benefits to the species expected to be impacted by development of the proposed facility. The applicant may also consider other parcels for mitigation purposes. The applicant proposes to cooperate with ODFW and landowners to identify the exact location of mitigation areas prior to construction.\textsuperscript{256}

The Council includes Condition IV.G.2.4, which requires the certificate holder to protect and enhance a mitigation area as described in the proposed Summit Ridge \textit{Habitat Mitigation Plan} (HMP), incorporated herein as Exhibit 3. ODFW has reviewed and conditionally approved the plan, and conducted a site visit of the applicant’s proposed mitigation parcels. In a subsequent

\textsuperscript{252} Final ASC, Section P.8.1, p. 38 and Attachments P-6 and I-2

\textsuperscript{253} Final ASC, Attachment P-6

\textsuperscript{254} Final ASC, Attachment P-6

\textsuperscript{255} Final ASC, Attachment P-6

\textsuperscript{256} Final ASC, Section P.8.2, p. 39 and Attachment P-6
letter to the applicant\textsuperscript{277}, ODFW had several suggestions related to some of the proposed
mitigation sites. The applicant responded that it “is in agreement with the recommendations of
this letter, and will undertake the improvements identified in establishing these as mitigation
sites.”\textsuperscript{278} The purpose of the proposed HMP is to enhance and protect the habitat quality of the
mitigation area by implementing the actions described in the plan. The certificate holder would
monitor the mitigation area to assess progress toward meeting success criteria. The plan
describes monitoring and reporting procedures and the criteria for evaluating the success of
habitat mitigation.

Before beginning construction, the certificate holder will calculate the size of the HMA
according to the final design configuration of the facility and the estimated areas of habitat
affected in each ODFW category, and the certificate holder will acquire the legal right to create,
enhance, maintain and protect the HMA for the life of the facility. The certificate holder may use
one or more of the four potential mitigation areas identified in the proposed HMP, or may select a
different area that is consistent with the plan and approved by ODFW.

Exhibit D of the ASC includes a description of the applicant’s past experience with
successfully meeting mitigation compliance requirements at projects it has managed.

\textbf{IV.G.I.c.iii. Wildlife Monitoring and Mitigation Plan}

The proposed HMP addresses the ODFW goals for habitat quantity and quality. To further
address the issue of habitat quality and ensure that facility operation complies with the Council
standard, the applicant proposes wildlife monitoring during operation of the proposed facility.\textsuperscript{279}
The draft WMM is incorporated here as Exhibit 2. The Council includes Condition IV.G.2.5,
which would require the certificate holder to conduct wildlife monitoring as described in the
WMM. The objectives for the proposed wildlife monitoring program are to determine whether
the proposed facility causes significant fatalities of birds and bats, and to determine whether the
proposed facility results in a loss of overall habitat quality.

Monitoring during the operation of the proposed Summit Ridge facility is necessary to
determine whether additional mitigation may be required for compliance with the Fish and
Wildlife Habitat Standards. Adequate monitoring provides data necessary to evaluate the impacts
of facility operation on nearby wildlife habitat. The WMMP describes wildlife monitoring
components, statistical analysis and data reporting that the certificate holder will be required to
implement during operation of the proposed facility. Under the terms of the WMMP, the
Department may require the certificate holder to implement additional monitoring or mitigation,
subject to approval by the Council, if the monitoring results show significant fatalities of avian or
bat species, adverse impact to raptor nesting or other significant loss of habitat quality.

Subject to compliance with the site certificate conditions listed below, the Council finds that
the design, construction and operation of the facility, taking into account mitigation, are
consistent with the fish and wildlife habitat mitigation goals and standards of OAR 345-415-
6025, in compliance with the Council’s wildlife habitat standard.

\textbf{IV.G.2 Fish and Wildlife Habitat: Conditions}

Based on the review of the information provided in Exhibit P of the ASC and other evidence in the
record, and to ensure compliance with the Wildlife Habitat standard in OAR 345-022-0060, the Council
includes the following conditions in the site certificate:

\textsuperscript{277} ODFW Review of Summit Habitat Mitigation and Wildlife Monitoring Plans, May 24, 2010 (SRW-0051)
\textsuperscript{278} Final ASC, Section P.8.2, p. 39
\textsuperscript{279} Final ASC, Attachment P-7
IV.G.2.1 Before beginning construction, the certificate holder shall provide to the Department, to the Oregon Department of Fish and Wildlife (ODFW) and to the Planning Director of Wasco County detailed maps of the facility site, showing the final locations where the certificate holder proposes to build facility components, and a table showing the acres of temporary habitat impact by habitat category and subtype and the acres of permanent habitat impact by habitat category and subtype. The detailed maps of the facility site shall indicate the habitat categories of all areas that would be affected during construction. In classifying the affected habitat into habitat categories, the certificate holder shall consult with ODFW. The certificate holder shall not begin ground disturbance in an affected area until the habitat assessment has been approved by the Department. The Department may employ a qualified contractor to confirm the habitat assessment by on-site inspection. [Site Certificate Condition 10.1]

IV.G.2.2 In addition to the requirements of IV.D.2.7 (requiring facility design to minimize impact to farming practices), the certificate holder shall incorporate the design elements listed below into the final facility design to avoid or mitigate impacts to sensitive wildlife habitat:

(a) Where practicable, facility components and construction areas shall be located to avoid or minimize temporary and permanent impacts to high quality native habitat and to retain habitat cover in the general landscape.

(b) No facility components may be constructed within areas of Category 1 habitat and temporary disturbance of Category 1 habitat shall be avoided.

(c) The design of the facility and areas of temporary and permanent disturbance shall avoid impacts to any Category 1 habitat, to any State-listed threatened or endangered plant or wildlife species, and to any State Candidate plant species. [Site Certificate Condition 10.2]

IV.G.2.3 In addition to the requirements of IV.C.2.2 (limiting traffic to improved road surfaces to the extent possible), the certificate holder shall implement measures to avoid or mitigate impacts to sensitive wildlife habitat during construction including, but not limited to, the following:

(a) Preparing and distributing maps to employees and contractors to show areas that are off-limits to construction personnel, such as nesting or denning areas for sensitive wildlife species;

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

(c) Limiting construction work to approved and surveyed areas shown on facility constraint maps; and

(d) Ensuring that all construction personnel are instructed to avoid driving cross-country or taking short-cuts within the site boundary or otherwise disturbing areas outside of the approved and surveyed construction areas. [Site Certificate Condition 10.3]

IV.G.2.4 The certificate holder shall acquire the legal right to create, enhance, maintain and protect a habitat mitigation area, as long as the site certificate is in effect, by means of an outright purchase, conservation easement or similar conveyance and shall provide a copy of the documentation to the Department prior to the start of construction. Within the habitat mitigation area, the certificate holder shall improve the habitat quality as described in the Habitat Mitigation Plan that is incorporated as Exhibit 3 of the Order and as amended from time to time. [Site Certificate Condition 10.4]

IV.G.2.5 The certificate holder shall conduct wildlife monitoring as described in the Wildlife Monitoring and Mitigation Plan that is incorporated as Exhibit 2 of the Order and as amended from time to time. [Site Certificate Condition 10.5] [Mandatory Condition OAR 345-027-0020(6)]
IV.G.2.6 The certificate holder shall hire a qualified environmental professional to provide environmental training during construction and operation. Environmental training includes information on the sensitive species present onsite, precautions to avoid injuring or destroying wildlife or sensitive wildlife habitat, exclusion areas, permit requirements and other environmental issues. The certificate holder shall instruct construction and operations personnel to report any injured or dead wildlife detected while on the site to the appropriate onsite environmental manager. [Site Certificate Condition 10.6]

IV.G.2.7 Before beginning construction and after considering all micrositing factors, the certificate holder shall provide to the Department a map showing the final design locations of all components of the facility and the areas that would be disturbed during construction and identifying the survey areas for all plant and wildlife surveys. This information may be combined with the map submitted per the requirements of Condition IV.G.2.1. The certificate holder shall hire a qualified professional biologist to conduct a pre-construction plant and wildlife investigation of all areas that would be disturbed during construction that lie outside of the previously surveyed areas. The certificate holder shall provide a written report of the investigation to the Department and to the Oregon Department of Fish and Wildlife (ODFW). [Site Certificate Condition 10.7]

**IV.G.3 Fish and Wildlife Habitat: Conclusions of Law**

Based on the foregoing findings, and subject to compliance with the site certificate conditions, the Council finds that the design, construction and operation of the proposed facility would be consistent with ODFW’s habitat mitigation goals and standards (OAR 635-415-0025) and therefore the proposed facility complies with the Council’s Fish and Wildlife Habitat Standard.
IV.H. THREATENED AND ENDANGERED SPECIES [345-022-0070]

OAR 345-022-0070
To issue a site certificate, the Council, after consultation with appropriate state agencies, must
find that:

1. For plant species that the Oregon Department of Agriculture has listed as threatened or
endangered under ORS 564.105(2), the design, construction and operation of the proposed
facility, taking into account mitigation:
   (a) Are consistent with the protection and conservation program, if any, that the Oregon
       Department of Agriculture has adopted under ORS 564.105(3); or
   (b) If the Oregon Department of Agriculture has not adopted a protection and conservation
       program, are not likely to cause a significant reduction in the likelihood of survival or
       recovery of the species.

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

IV.H.1 THREATENED AND ENDANGERED SPECIES: FINDINGS OF FACT

The applicant provided information about compliance with the Council's Threatened and
Endangered Species Standard in Exhibit Q of the application. The analysis area for threatened or
endangered plant and wildlife species is the area within the site boundary and five miles from the site
boundary. In the application, those species listed as threatened or endangered by the responsible agencies
in Oregon are referred to as "State-listed" species. Although the Council's standard does not directly
address federally-listed threatened or endangered species, certificate holders must comply with all
applicable federal laws, including laws protecting those species.

ORS 564.100 defines "endangered" and "threatened" plant species as follows:
"Endangered species" means:
(a) Any native plant species determined by the department to be in danger of extinction throughout any
significant portion of its range.
(b) Any native plant species listed as an endangered species pursuant to the federal Endangered

"Threatened species" means:
(a) Any native plant species the director determines by a finding of fact is likely to become an
endangered species within the foreseeable future throughout any significant portion of its range.
(b) Any native plant species listed as a threatened species pursuant to the federal Endangered Species

ORS 496.004 defines "endangered" and "threatened" wildlife species as follows:
"Endangered species" means:
(a) Any native wildlife species determined by the commission to be in danger of extinction throughout
any significant portion of its range within this state.
(b) Any native wildlife species listed as an endangered species pursuant to the federal Endangered

"Threatened species" means:
(a) Any native wildlife species the commission determines is likely to become an endangered species
within the foreseeable future throughout any significant portion of its range within this state.
(b) Any native wildlife species listed as a threatened species pursuant to the federal Endangered
In order to identify State-listed or candidate plant species that might occur within the analysis area, the applicant conducted searches of the ORBIC and USFWS databases for documented and projected occurrences of endangered, threatened and special-status plant and wildlife species likely to be found in that area. In addition, the applicant reviewed existing literature and scientific data regarding special-status species occurrences in the region. The applicant used information from the database searches to inform plant and wildlife field surveys of the analysis area that were performed June 1-2, 2009. The proposed transmission line area was surveyed on May 28, 2010.

IV.H.1.a. Plant Species

No listed or candidate plant species were identified during field surveys of the analysis area; however, five plant species with state conservation status were identified which may occur within the analysis area based on habitat suitability and records of nearby occurrences. These plants included Tygh Valley milk vetch (threatened) and Henderson’s ricegrass, dwarf evening-primrose, diffuse stickseed, and hepatic monkey flower (candidate species).

To ensure protection of populations of these species during construction and operation of the proposed facility the Council includes Condition IV.G.2.2 (requiring incorporation of elements into the final facility design to minimize impacts to sensitive wildlife habitat), Condition IV.G.2.3 (requiring implementation of measures during construction to avoid sensitive wildlife habitat), and Condition IV.G.2.6 (requiring that a qualified environmental professional provide environmental training to construction and operation staff). These conditions are discussed in more detail in Section IV.G (Fish and Wildlife Habitat).

IV.H.1.b. Fish and Wildlife Species

During field surveys of the analysis area, four detections of bald eagles were recorded. The bald eagle has been removed from the federal endangered species list, but is still protected under the federal Bald and Golden Eagle Protection Act and is listed at the state level as threatened. No other listed or candidate species were identified as likely to occur within the analysis area, nor during field surveys of the analysis area. Bald eagles nest and forage along fish-bearing streams throughout Oregon and Washington from late winter to early summer and are known to winter near the Columbia River. The species uses communal night roosts primarily during winter. Communal roosts generally occur in multi-layered mature or old-growth conifer stands that provide protection from weather and human disturbance.

Nesting typically begins in January, followed by egg-laying and incubation in February and March. Young are reared from April to June and fledging occurs in July and August. Bald eagles are primarily predators, but they are also opportunistic scavengers that feed on a variety of prey, including salmon, other fish, small mammals, waterfowl, seabirds and carrion. Bald eagles usually forage in large open areas with a wide visual field and suitable perch trees located near the food source. Bald eagles concentrate their foraging and roosting in areas along or close to the Columbia River, but they scavenge on carrion and small mammals in the upland areas.

As stated above, four bald eagles were observed during the wildlife surveys of the proposed Summit Ridge site. Bald eagles may pass through the site while foraging for upland mammals or

262 Final ASC, Section Q.3.1, p. 2
263 Final ASC, Section Q.3.1, p. 3
264 Final ASC, Section Q.4, p. 4 and Table Q-1
265 Final ASC, Section Q.4, p. 4
266 The bald eagle was removed from the federal endangered species list in 2007. It continues to be protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act.
carrion, but are not expected to make extensive use of the site. The applicant’s database search did not turn up any records of bald eagle nests or roosting areas within five miles of the proposed site and bald eagles are not expected to nest in the vicinity of the proposed project.\textsuperscript{267}

Potential adverse impacts to bald eagles passing through the site could occur from collisions with proposed wind turbines; however, the applicant notes that there have been no reported instances of bald eagle fatalities at any wind energy facility in the United States.\textsuperscript{268} The likelihood of adverse effects appears to be low due to the limited use of the facility site by bald eagles.

\textbf{IV.H.1.c. Potential Impacts and Mitigation}

The Council adopts conditions requiring that most of the facility collector lines be placed underground, which will help to mitigate the risk to bald eagles and other avian species from wire strikes and electrocution (see Section IV.K, Public Health and Safety Standards). Condition IV.H.2.1 requires the certificate holder to design aboveground transmission lines to minimize raptor injury by adhering to the Avian Power Line Interaction Committee suggested practices for raptor protection on power lines. In addition, it requires that meteorological towers be non-guyed structures to eliminate the risk of avian collision with guy-wires, and turbine towers be smooth tubular structures rather than lattice towers to avoid creating perching opportunities.\textsuperscript{269} Transformer cabinets at each turbine would be designed to avoid creation of artificial habitat for raptor prey and each turbine must have a 15-foot graveled area around the base (Condition V.C.2.8), which will reduce weeds and so reduce cover for raptor prey near turbines.

As described in the draft \textit{Wildlife Monitoring and Mitigation Plan} (WMMP) (Exhibit 2), the certificate holder will conduct standardized fatality searches of turbine tower areas during operation and will conduct ongoing monitoring of all facility structures. The certificate holder will be required to notify USFWS, ODFW and the Department of any bald eagle fatalities attributable to collision with wind turbines or other facility structures. Under the WMMP, the Council may require additional mitigation if the fatality rate for raptor species exceeds a level of concern. Based on the limited use of the facility site by bald eagles and considering the mitigation measures that the certificate holder will implement, the Council finds that the design, construction and operation of the proposed facility are not likely to cause a significant reduction in the likelihood of survival or recovery of the bald eagle species.

\textbf{IV.H.2 THREATENED AND ENDANGERED SPECIES: SITE CERTIFICATE CONDITIONS}

Based on the review of the information provided in Exhibit Q of the ASC, and to ensure compliance with the Threatened and Endangered Species Standard in OAR 345-022-0070, the Council includes the following conditions in the site certificate:

\textbf{IV.H.2.1} The certificate holder shall reduce the risk of injuries to avian species by:

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

\textsuperscript{267} Final ASC, Section Q.4, p. 4
\textsuperscript{268} Final ASC, Section Q.4, p. 4
\textsuperscript{269} FOCG objected to the requirement to use tubular turbine towers as a mitigation measure (SRW-0133, p. 13). However, the USFWS Wind Energy Guidelines (p. B2) state that using tubular towers reduces the ability of birds to perch [U.S. Fish and Wildlife Service (USFWS) Draft Land-Based Wind Energy Guidelines: Recommendations on measures to avoid, minimize, and compensate for effects to fish, wildlife, and their habitats, February 11, 2011 (SRW-0148)]. See also SRW-0120, Lotus Works citing the Wind Turbine Guidelines Advisory Committee Recommendations.
(b) Installing meteorological towers that are non-guyed structures to eliminate the risk of avian collision with guy-wires.

(c) Designing and installing all aboveground transmission line support structures following the most current suggested practices for avian protection on power lines published by the Avian Power Line Interaction Committee.

[Site Certificate Condition 10.8]

IV.H.3 Threatened and Endangered Species: Conclusions of Law

Based on the foregoing findings and subject to compliance with the site certificate conditions, the Council finds that the design, construction and operation of the proposed facility do not have the potential to significantly reduce the likelihood of the survival or recovery of any threatened or endangered plant or wildlife species listed under Oregon law. Based on these findings and subject to the site certificate conditions described herein, the Council concludes that the proposed facility complies with the Threatened and Endangered Species Standard.
**IV.I. Scenic Resources [OAR 345-022-0080]**

**OAR 345-022-0080**

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

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**IV.I.1 Scenic Resources: Findings of Fact**

The applicant provided evidence about potential impacts to scenic resources in Exhibit R of the application. The analysis area for the Scenic Resources Standard is the area within the site boundary and 20 miles from the site boundary, including areas outside the state. In applying this standard, the Council focuses on the effects of facility structures on scenic resources described in “local land use plans, tribal land management plans and federal land management plans for any lands located within the analysis area described in the project order.”

The tallest components of the proposed Summit Ridge are the turbine towers, and these structures are the visual elements of the facility most likely to be visible from a distance. Although the turbine towers for the proposed facility would be approximately 80 meters at hub height, the visual impact of the towers diminishes with distance.

**IV.I.1.a. Visual Features of the Site and the Proposed Facility**

The proposed Summit Ridge site consists of facility components spread out within an area of approximately 27,093 acres. Within this site boundary, the applicant proposes to construct up to 87 wind turbine towers. The towers would have a maximum hub height of 80 meters (263 feet) and maximum blade tip height of 130 meters (427 feet). In addition, the applicant proposes up to three 80-meter met towers, aboveground transmission lines on support structures up to 70 feet tall, a limited amount (10% or less of the total) of aboveground collector lines on support structures up to 55 feet tall, and a combined O&M and substation area on approximately five acres.

The wind turbine towers would be painted a low-reflective neutral gray, white, or off-white color. Other facility structures would be designed to blend with the surrounding landscape. The certificate holder would design signs in accordance with applicable county ordinances. Facility lighting would be limited to aviation safety lighting on turbine towers and limited lighting for safety and security purposes at the O&M facility and substation. The Council includes Conditions IV.I.2.1 and IV.I.2.2, IV.I.2.3 (as presented in Section IV.I.2 below), and Conditions IV.D.2.2 (regarding limitations on use of signs) and IV.D.2.3 (regarding shielding and hoisting lights to reduce adverse impacts to the night sky) to mitigate impacts to identified scenic values.

The applicant performed a visibility analysis of the project area (20 miles from the site boundary). This analysis was performed using ESRI ArcGIS software and based on US Geological Survey Digital Elevation Models. Modeling techniques were used to determine areas from which the proposed facility would potentially be visible. The precision of these modeling techniques are limited by the resolution of the Digital Elevation Models, which in this case were 10 meter resolution models. It is also important to note that the models do not incorporate weather conditions, vegetation or structures which might affect on-the-ground visibility. The model considers an object to be visible if any part of

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270 Final ASC, Section R.6, p. 12
271 Final ASC, Section R.2, p. 1
that object (turbine or transmission tower), is within a line-of-sight, based on that object’s maximum height.

In comments FOCG raised issues related to the demonstration of compliance with the Scenic Resources Standard. FOCG urged the Council to reject the visual resource study provided by the applicant and to require the applicant to perform the visual analysis using the Bureau of Land Management’s (BLM) Visual Resource Management (VRM) system.\textsuperscript{272} In addition, FOCG urges the Council to adopt the practices propounded by the National Research Council of the National Academy of Sciences as the standard for creating simulations for wind energy facilities.\textsuperscript{273} FOCG urges the Council to require the applicant to use specific wind project simulation software. Based on its preferred methodology, FOCG lists a number of deficiencies in the analysis. However, FOCG did not provide an alternative visual impact study conducted pursuant to its preferred methodology, nor did FOCG provide any qualified authority to support its assertions regarding the visual impact study.

The applicant provided responsive comments to the FOCG issues regarding visual resource modeling. The applicant correctly points out that the applicable EFSC administrative rules do not specify the methodology to be used to determine compliance with the Scenic Standard. In addition, the applicant noted that BLM identified the VRM analysis as a “tool for managing public lands.” As the applicant points out, the project will be located on private land not managed by BLM and, thus, use of the BLM VRM is not required for this project.

The applicant performed an initial visibility analysis based on a preliminary project design incorporating 167 turbines; the analysis showed that this project design would potentially have a significant impact on views. The applicant then revised the project design to incorporate 87 turbines and the analysis discussed here was performed based on this currently proposed design.\textsuperscript{274} The applicant used the visibility analysis to determine the Zone of Visual Influence (ZVI) of the proposed facility, based on the proposed layout. Figure R-1 of Exhibit R of the ASC shows the areas from which turbines will likely be visible. Using the results of the ZVI, visual simulations were prepared to show potential visibility from key viewpoints along the Deschutes River. The applicant selected viewpoint locations based on the visibility analysis and fieldwork conducted August 30-31, 2009.\textsuperscript{275} These visual simulations are shown in Figures R-2 through R-6 of Exhibit R of the ASC (see discussion below in IV.I.I.B.ii.)

To decide whether the proposed facility would comply with the Council’s Scenic Resources standard, the Council must first determine whether any of the land management plans for locations within the analysis area identify “significant or important” scenic resources and values. The Council must then decide whether the proposed facility could be visible from those locations and, if so, whether

\textsuperscript{272} FOCG also asserts that the analysis must be conducted by a qualified landscape architect (SRW-0133, p. 3). The applicant provided additional information demonstrating that the consultant who prepared the visual impact study meets the qualifications identified by FOCG (SRW-0120, p. 5).

\textsuperscript{273} SRW-0133, p. 4

\textsuperscript{274} Final ASC, Section R.2, p.1 and Section R.5.3.2, pp. 8-9

\textsuperscript{275} Final ASC, Section R.2, pp. 1-2
the visual impact of the proposed facility would result in "significant adverse impact"\textsuperscript{276} to the
identified scenic resources and values.\textsuperscript{277}

The applicant identified the following local, tribal and federal land management plans that apply to
land within the analysis area:

- Management Plan for the Columbia River Gorge National Scenic Area, September 1992, revised
  May 10, 2004;
- Mt. Hood National Forest Land and Resource Management Plan Final Environmental Impact
  Statement, October, 1990;
- Lower Deschutes River Management Plan and Final Environmental Impact Statement, January
  1993 (Record of Decision issued February 1993);
- White River National Wild and Scenic River Management Plan, Decision Notice, and Finding of
  No Significant Impact, 1994;
  Amendments and Final Environmental Impact Statement, June 2000 (Record of Decision issued
  February 2001);
- Lewis and Clark National Historic Trail Comprehensive Plan and Management and Use, January
  1982;
- Management and Use Plan Update Final Environmental Impact Statement Oregon National
  Historic Trail and Mormon Pioneer National Historic Trail, August 1999;
- Spokane Resource Management Plan and Record of Decision, May, 1987;
- Comprehensive Plan for Wasco County [Oregon];
- Hood River County Comprehensive Land Use Plan [Oregon];
- Comprehensive Plan for Land Use in Gilliam County, Oregon, May, 1977 (Amended 1987);
- Sherman County [Oregon] Comprehensive Land Use Plan, 1994, (Updated 2007);
- Comprehensive Plan for the City of Dufur, Oregon, 1977;
- Maupin [Oregon] Comprehensive Land Use Plan, 1980;
- Rufus [Oregon] Comprehensive Land Use Plan, June, 1978;

\textsuperscript{276} OAR 345-001-0010(51) defines "significant" to mean "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."

\textsuperscript{277} Contrary to FOGG’s comments that the facility should “avoid all adverse impacts” (SRW-0133, p. 7), the
Council’s standard does not require the elimination of all visual impacts.
SUMMIT RIDGE WIND FARM
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- Grass Valley [Oregon] Comprehensive Land Use Plan, April, 1978; and,

Not all of these plans identify significant visual or aesthetic resources within the analysis area. The applicant identified scenic resources that are identified in one or more of the above plans for analysis. Significant or important scenic resources identified in these management plans that are within the analysis area are listed in the table below ("Scenic Resources in the Analysis Area").

<table>
<thead>
<tr>
<th>Scenic Resource</th>
<th>Management</th>
<th>Location</th>
<th>Distance from the Site Boundary (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbia River Gorge National Scenic Area</td>
<td>Federal</td>
<td>Oregon/Washington</td>
<td>11.0</td>
</tr>
<tr>
<td>Lower Deschutes River Canyon</td>
<td>Federal and State</td>
<td>Oregon</td>
<td>2.0</td>
</tr>
<tr>
<td>White River Canyon</td>
<td>Federal</td>
<td>Oregon</td>
<td>10.0</td>
</tr>
<tr>
<td>John Day River Canyon</td>
<td>Federal and State</td>
<td>Oregon</td>
<td>15.5</td>
</tr>
<tr>
<td>Mt. Hood National Forest</td>
<td>Federal</td>
<td>Oregon</td>
<td>15.0</td>
</tr>
<tr>
<td>Oregon National Historic Trail</td>
<td>Federal</td>
<td>Oregon</td>
<td>8.5</td>
</tr>
<tr>
<td>Journey Through Time Scenic Byway</td>
<td>State</td>
<td>Oregon</td>
<td>6.5</td>
</tr>
<tr>
<td>Wasco County</td>
<td>County</td>
<td>Oregon</td>
<td>The entire facility lies within the county.</td>
</tr>
<tr>
<td>Sherman County</td>
<td>County</td>
<td>Oregon</td>
<td>6.0</td>
</tr>
</tbody>
</table>

IV.I.I.a.i. Columbia River Gorge National Scenic Area (CRGNSA)

The CRGNSA Management Plan identifies key viewing areas which are important viewpoints open to the public offering opportunities to view the gorge. Key viewing areas within the analysis area include Interstate Highway 84 (I-84), Historic Columbia River Highway, Washington State Route 14 (SR-14), Rowena Plateau and Nature Conservancy Viewpoint, and the Columbia River. Scenic travel corridors within the analysis area include I-84 and SR-14.

The applicant’s visibility analysis indicates some portions of the proposed facility (i.e., turbines and/or transmission towers) would be visible from the eastern portion of the CRGNSA within the analysis area.279 Much of the area from which the proposed facility may be visible is not publicly accessible; there are limited roads and most land is held in private ownership. Modeling results and field investigation indicate that the proposed Summit Ridge would not be visible from I-84, Historic Columbia River Highway, Rowena Plateau and Nature Conservancy Viewpoint, or the Columbia River. The most likely locations from which to view the proposed Summit Ridge facility occur along Washington SR-14 in the vicinity of Wishram, Washington.

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278 Distance from the management area to the nearest part of the site boundary estimated by the Department based on the Final ASC, Figure R-1
279 Final ASC, Section R.5.3.1, p. 8 and Figure R-1
Turbines and transmission lines would be located roughly 11 and 12 miles, respectively, from SR-14. Given the viewing distance, it is not clear whether transmission towers would be discernable to the naked eye. Where visible, the Summit Ridge facility would likely be subordinate to the landscape setting that typically includes significant man-made development such as interstate and rail transportation corridors, other wind turbine development projects, transmission corridors, radio and cellular towers, and urban and rural development in the foreground and middleground.\(^{280}\)

In comments the FOGC challenges this characterization of the visibility of the Summit Ridge facility, stating that the “analysis is a gross mischaracterization of the views from the National Scenic Area.” The comment continues:

Despite a few discordant features, these views are largely outstanding as evidenced by the rigorous inventories and management directives completed pursuant to the National Scenic Area Act. On a very common sense level the importance of these views is clearly evident by the fact that the area was included within the boundaries of the National Scenic Area in the first place.\(^{281}\)

The comments continue to explain how the scenic resource inventory was conducted for the CRGNSA Management Plan, concluding that:

Based on these inventories the majority of the land visible to the south of State Route 14 was given a land use designation of Large-Scale Agriculture and a landscape setting designation of Grassland. Notably, the existing development in the landscape, including transmission and transportation corridors, did not substantially reduce the quality of the scenic resources.

\[**\]

However, FOGC does not distinguish land within the CRGNSA from land outside the NSA that might be visible from the NSA. The Management plan is clear that it applies to new development within the national scenic area:

The goals, objectives, policies and guidelines of this chapter provide a framework to guide actions of federal, state, and local agencies and private entities that may affect scenic resources of the scenic area.

\[**\]

This section includes overall scenic provisions that apply to all new proposed developments in the GMA [general management area] regardless of whether other specific provisions related to key viewing areas, landscape settings, scenic travel corridors, or signs apply.\(^{282}\)

(Emphasis added.)

In other words, by its terms the Management Plan does not apply to development outside the NSA. Thus, neither the Act nor the Management Plan provides a basis for limiting development on private land outside the CRGNSA. In fact, Congress specifically disclaimed any intention to extend the protections of the Scenic Act outside the boundaries of the NSA:

Nothing in sections 544 to 544p of this title shall

(10) establish protective perimeters or buffer zones around the scenic area or each special management area. The fact that activities or uses inconsistent with the management directives for the scenic area or special management areas can be seen or heard from these

\(^{280}\) Final ASC, Section R.5.3.1, p. 8

\(^{281}\) SRW-0133, p. 9

areas shall not, of itself, preclude such activities or uses up to the boundaries of the scenic area or special management areas.

16 U.S.C. § 5440(a)(10). The Act and the Management plan protect scenic resources within the NSA from additional degradation from development within the NSA, but do not preclude development of the Summit Ridge facility on private land outside the boundaries of the NSA, even if there will be a visual impact within the NSA. The standard to be applied is whether the facility will have a “significant adverse effect on the existing resources” under the Council’s Scenic Standard. The existence of development in the existing views is relevant to the determination of whether the proposed facility has a “significant adverse impact.”

Based on the amount of existing development in the foreground and middleground views, viewing distances, and limited opportunities to view turbines, the proposed Summit Ridge facility would likely result in minimal impacts, if any, to the CRGNSA. The Council finds that the proposed Summit Ridge Facility is not likely to have a significant adverse effect on the identified scenic resources associated with the CRGNSA.

IV.I.1.a.ii. Lower Deschutes River Canyon

The Lower Deschutes is a designated federal Wild and Scenic River (recreational river classification) and Oregon State Scenic Waterway. The river corridor is popular for its diverse recreational opportunities including fishing and rafting. A railroad corridor (to the west) and roadway (to the east) parallel the river within the canyon. Recreational development occurs in several areas throughout the canyon.

The BLM and Oregon Parks and Recreation Department (OPRD) administer the majority of public lands within the canyon. The BLM Lower Deschutes Management Plan Record of Decision states that the Lower Deschutes River Canyon is an “Area of High Visual Quality” that should be managed to provide “protection and enhancement to the river’s outstandingly remarkable values while providing adequate levels of recreation use and diversity of opportunities.”

The Two Rivers Resource Management Plan identifies the Deschutes River Canyon (the rim-to-rim area) as an “area of high visual quality” and as a Special Management Area which should be protected while allowing compatible uses in the same area.\(^{283}\)

The visibility analysis performed based on the current layout indicates that portions of some turbines may be visible from areas of the Deschutes River. Transmission towers will be visible from isolated canyon rims near the mouth of the river, but not from the canyon interior or river shorelines. The applicant has provided five visual simulations showing the potential visibility of facility components from viewpoints along the river closest to the proposed facility (and therefore most likely to be impacted). These simulations were included as Figures R-2 through R-6 in Exhibit R of the ASC.

The simulations use mapping and imagery information, which does not incorporate the presence of riparian vegetation or built structures in the landscape. The analysis is based simply on which features would be in the viewer’s “line of sight” considering the intervening terrain elevation. The simulations do not account for vegetation that could obscure views. For example, the model results indicate turbines would be visible from Heritage Landing and the DRSRA; however, the applicant performed field investigation which verified that riparian vegetation would substantially screen views of turbines from the campgrounds and developed recreation sites associated with these facilities. Further, turbines viewed from these developed recreation sites, if visible, would be viewed at distances generally greater than ten miles.

\(^{283}\) Final ASC, Section R.4.2, p. 4
Viewpoints along the Deschutes River used for the simulations are near Game Commission
Camp, Bedsprings, Snake-in-the-Box, Box Elder Canyon, and Cedar Island. The simulations show
that portions of turbines will be visible from some locations along the Deschutes River. Visible
portions of turbines may include turbine blades, nacelles, and in some cases, portions of the tower.
It is possible that several turbines visible from the Deschutes River will require red flashing lights to
comply with the requirements of the FAA and will impact view of the night sky. Views of turbines
would be primarily from distances of two or more miles. While turbines will be visible from the
river, they are not expected to dominate views and would generally be subordinate to the
surrounding landscape.\footnote{284}

FOCG raised several issues related to the Deschutes Wild and Scenic River and application of
the Management Plans. FOGC asserts that the analysis does not refer to “any of the management
goals for scenic resources listed in any of the applicable management documents or VQOs adopted
by the BLM.”\footnote{285} FOGC further asserts that the “DPO must be revised to acknowledge specific
ORV’s for the Deschutes River, which likely include scenic resources. Without a meaningful
discussion of ORVS, the DPO does not comply with state laws requiring protection of scenic areas *
* * * \footnote{286}

FOGC states that the landscape visible from the Lower Deschutes Wild and Scenic River “likely
has visual resource inventory rating of Class 1”\footnote{287} and argues that if any portion of the proposed
facility would be visible from the Deschutes River, then the project would attract attention and
undermine the Class 1 Objective. As such the project would cause significant adverse impacts.
FOGC argues that the only means to eliminate adverse impacts is to relocate turbines so that no
turbine parts break the skyline of views from the Deschutes River; site out of Deschutes River
viewshed, including FAA safety lighting.\footnote{288}

The Application and DPO adequately identify and apply the resources and values identified in
the applicable federal land management plans.\footnote{289} Those plans do not purport to regulate
development on the project site, which is located some distance away from the designated Lower
Deschutes Wild and Scenic River. Similarly, although the area is designated as a State Scenic
Waterway pursuant to ORS 390.845, the administrative rules adopted by the Oregon Parks and
Recreation Department for the management of State Scenic Waterways protect scenic values “seen
from the waters” or “visible from the river.”\footnote{290} Lands beyond the boundaries of “related adjacent
land” (defined as land within a quarter-mile of the riverbank), whether or not such land is visible
from the river, is outside state management jurisdiction.

As noted above, while the application acknowledges that portions of the proposed facility might
be visible from the Deschutes River Canyon, the turbines will generally be subordinate to the
surrounding landscape and will not dominate the views. As a result, even assuming that any visual
impacts can be characterized as “adverse,” the proposed Summit Ridge facility would likely result in
minimal impacts, if any, to the Lower Deschutes Wild and Scenic River, and thus cannot be
determined to be “significant.” Therefore, the Council finds that the proposed Summit Ridge facility

\footnote{284} Final ASC, Section R.5.3.2, pp. 9-10
\footnote{285} SRW-0133, p. 6
\footnote{286} Id.
\footnote{287} Id., p. 7.
\footnote{288} Id.
\footnote{289} Final ASC, Section R.5.3.2, pp. 9-10
\footnote{290} OAR 736-040-0015
is not likely to have significant adverse impacts to identified scenic resources associated with the Deschutes River Canyon.

**IV.II.a.iii. White River Canyon**

The White River is a designated federal Wild and Scenic River, administered jointly by the USFS and the BLM. The river corridor is divided into segments A-F in the White River National Wild and Scenic River Management Plan; river segments E and F occur within the analysis area. Opportunities to view the river corridor within segments E and F occur primarily from State Highway 216 and at White River Falls State Park.291

Computer modeling results and field investigation indicate that the proposed Summit Ridge facility would not be visible from White River Falls State Park. Portions of turbines may be visible at distances of greater than ten miles from the higher canyon walls of the White River, but access to these locations is extremely limited, limiting the visual impact to these areas. The applicant's model demonstrates that transmission towers would not be visible from these same locations.292

An opportunity to view the river is available on Highway 216; however, because the White River is south of Highway 216 and the proposed facility would be located north of the highway, there are no expected visual impacts to views of the White River from Highway 216.293 Therefore, the Council finds that the proposed facility is not likely to have significant adverse impacts to identified scenic resources associated with the White River Canyon.

**IV.II.a.iv. John Day River Canyon**

The John Day River system includes more than 500 river miles and is one of the longest free-flowing river systems in the continental United States. The landscape within the analysis area features high desert communities of sagebrush and juniper with intermingled private ranches adding visual interest along the river. The John Day River Canyon (i.e., the area rim-to-rim) is also identified as an “area of high visual quality” and managed as a Visual Resource Management Class II resource. Beginning at Tumwater Falls near river mile 10 upstream through the analysis area, the river is a designated Federal Wild and Scenic River and classified as Recreational. This segment is also designated as a State Scenic Waterway. The Two Rivers Resource Management Plan Record of Decision also identifies two Special Management Areas relevant to this proposal: the Oregon Trail Historic Site McDonald Crossing and the John Day River Canyon.294

The applicant’s visibility analysis indicates that the proposed Summit Ridge facility will not be visible from the John Day River and may be potentially visible from extremely small portions of the higher canyon walls at distances of over 18 miles.295 Due to distance and lack of access to areas from which the proposed facility may be visible, the Council finds that the proposed Summit Ridge facility is not likely to have significant adverse impacts to identified scenic resources associated with the John Day River Canyon.

**IV.II.a.v. Mt. Hood National Forest**

The Mt. Hood National Forest includes over 1.1 million acres and is administered by the USFS. The Mt. Hood Forest straddles the Cascade Mountain Range and varies in elevation from 65 feet

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291 Final ASC, Section R.4.3, pp. 4-5
292 Final ASC, Section R.5.3.3, p. 10
293 Final ASC, Section R.5.3.3, p. 10
294 Final ASC, Section R.4.4, p. 5
295 Final ASC, Section R.5.3.4, p. 10
above sea level along the Columbia River to the summit of Mt. Hood at an elevation of 11,235 feet. The Forest's natural environment includes a number of attractions such as mountain lakes and streams, diverse wildlife and habitats, and multiple recreational opportunities. The portion of the Forest located within the analysis area includes a number of scenic viewsheds that are protected by the USFS's Visual Management System Visual Quality Objectives; these objectives include preservation, retention, partial retention, modification, and maximum modification.

The applicant's computer model suggests that the proposed Summit Ridge facility would be visible from Mt. Hood National Forest; however, these results may not be accurate due to the fact that the model does not incorporate vegetation and the Mt. Hood National Forest area is generally heavily treed. The scenic resources in the Forest and in the analysis area include forest stands with a retention or preservation Visual Quality Objective. The purpose of these Visual Quality Objectives is to limit logging activity and other man-made developments within these units and thus maintain the units' scenic quality, which in turn will maintain vegetation, obscuring possible views of the proposed Summit Ridge facility. Access to these areas is also rather limited and viewing distances to the proposed Summit Ridge project is greater than 15 miles. Given these considerations, the Council finds that the proposed Summit Ridge facility would not have significant adverse visual impacts on the Mt. Hood National Forest.

IV.I.1.a.vi. Oregon National Historic Trail

The Oregon National Historic Trail was authorized by congress in 1978, to provide for this significant historic route's preservation, interpretation, public use, and understanding. The management plan is a coordinating document that provides broad-based policies, guidelines, and standards for administering the trail (as well as the California, Pony Express, and Mormon Pioneer National Historic Trails) in such a manner as to ensure the protection of trail resources, their interpretation, and their appropriate public use. This plan identifies both segments and sites along the trail with a high potential for public use. The plan identifies four high-potential sites within the analysis area, based on "historic significance, presence of visible historic remnants, scenic quality, and relative freedom from intrusion." The four sites are the Deschutes River Crossing, The Dalles Complex, Tygh Valley, and Biggs Junction. The Plan does not identify specific scenic or aesthetic resources at these sites.

The applicant's computer model and field investigations indicate that the proposed Summit Ridge facility will not be visible from any of the four identified high-potential sites. Therefore, the Council finds that the proposed Summit Ridge project will not significantly impact these resources of the Oregon National Historic Trail.

IV.I.1.a.vii. Journey Through Time Scenic Byway

The Journey Through Time Management Plan is administered through Oregon Department of Transportation Scenic Byway Program. This Plan is referenced by the Sherman County Comprehensive Plan and therefore applies to the proposed Summit Ridge facility. The Sherman County Comprehensive Plan does not provide any additional guidance on management of the scenic or aesthetic resources associated with the Journey Through Time Scenic Byway. The Journey Through Time Management Plan describes the rural heritage and history of the 286-mile route through north central Oregon; however, the Journey Through Time Management Plan does not

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296 Final ASC, Section R.4.5, p. 5
297 Final ASC, Section R.5.3.5, p. 10
298 Final ASC, Section R.4.6, pp. 5-6
299 Final ASC, Section R.5.3.6, p. 10
identify any significant visual or aesthetic resources for protection or consideration. The plan
defines four goals: create jobs; maintain rural lifestyles; protect important values (i.e., historic
attractions and an emphasis on education); and build identity in the region.300

The applicant’s visibility analysis shows that portions of turbines will be visible in the
background along portions of the Journey Through Time Scenic Byway, primarily between the
towns of Wasco and Grass Valley. Transmission towers will not be visible. The proposed Summit
Ridge facility is compatible with the Journey Through Time Scenic Byway’s stated goals,
particularly the goals of job creation and building a regional identity. Turbines that are visible from
the Byway will be visible in the background, and will be subordinate to the surrounding landscape,
which includes extensive turbine development in the foreground and middleground.301 For these
reasons the Council finds that the proposed Summit Ridge facility will not significantly impact the
Journey Through Time Scenic Byway.

IV.II.a.viii. Wasco County Resources

The WCCP identifies the following scenic highways within the analysis area: Interstate 84 (I-
84) east of The Dalles city limits; OR Hwy 197 between I-84 and just north of the town of Dufur;
and a second segment of Hwy 197 beginning at the summit of Tygh Ridge and continuing south
approximately thirteen miles before leaving the analysis area. The WCCP has designated these
highway segments as scenic resources due to their being “adjacent to or passing through scenic areas
in State or Federal parks, historic sites, or in areas of natural beauty...designated by the Scenic Area
Board.” In addition, the WCCP identifies Pine Hollow Lake and its surroundings as an outstanding
scenic and recreational area. The WCCP also identifies the CRGNSA as a scenic resource; this
resource is addressed Section IV.II.b.i, above.302

The visibility analysis indicates that the proposed Summit Ridge facility will not be visible
from Pine Hollow Lake and therefore will not have adverse impacts on that resource. The analysis
does indicate that portions of turbines and transmission towers will be intermittently visible from the
identified scenic highway segments at distances of at least 7.6 miles and 1.8 miles, respectively. As
stated above in the discussion of impacts to the CRGNSA, the proposed Summit Ridge facility will
not be visible from I-84. Given the intermittent nature of the visibility of the proposed facility,
viewing distances, the presence of existing transmission facilities in the vicinity, and the fact that the
turbines and towers would be subordinate to the surrounding landscape, the Council finds that the
proposed Summit Ridge facility would have minimal impacts, if any, to the scenic highway
segments in the analysis area identified by the WCCP.303

IV.II.a.ix. Sherman County Resources

The Sherman County Comprehensive Plan Goal VI is to “Encourage preservation of the rural
nature of the Sherman County landscape.” Policy VII of the section states “trees should be
considered an important feature of the landscape and therefore the County Court shall encourage the
retention of this resource when practical.” Trees within the analysis area are sparsely distributed and
occur primarily along the riparian corridor of the Lower Deschutes River and in developed rural
communities (i.e., Moro and Dufur) located in Wasco County.304

300 Final ASC, Section R.4.7, p. 6
301 Final ASC, Section R.5.3.7, pp. 10-11
302 Final ASC, Section R.4.8, p. 6
303 Final ASC, Section R.5.3.8, p. 11
304 Final ASC, Section R.4.9, pp. 6-7
The proposed Summit Ridge facility is located entirely within Wasco County and will not impact trees in Sherman County or affect the rural nature of the Sherman County landscape. For these reasons, the Council finds that the proposed Summit Ridge facility will not adversely impact visual resources identified as significant by the Sherman County Comprehensive Plan.

IV.1.2 SCENIC RESOURCES: SITE CERTIFICATE CONDITIONS

Based on the review of the information provided in Exhibit R of the ASC and other evidence in the record, and to ensure compliance with the Scenic Resources Standard in OAR 345-022-0080, the Council includes the following conditions in the site certificate:

IV.1.2.1 To reduce the visual impact of the facility, the certificate holder shall:

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

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

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

(d) Use only those signs required for facility safety, required by law or otherwise required by this site certificate, except that the certificate holder may erect a sign near the O&M building to identify the facility, may paint turbine numbers on each tower and may allow unobtrusive manufacturers' logos on turbine nacelles.

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

[Site Certificate Condition 6.15]

IV.1.2.2 The certificate holder shall design and construct the O&M building to be generally consistent with the character of similar buildings used by commercial farmers or ranchers in the area and shall paint the building in a low-reflectivity, neutral color to blend with the surrounding landscape. [Site Certificate Condition 6.16]

IV.1.2.3 The certificate holder shall not use exterior nighttime lighting except:

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

(b) Safety and security lighting at the O&M facility and substation, if such lighting is shielded or downward-directed to reduce offsite glare.

(c) Minimum lighting necessary for repairs or emergencies.

[Site Certificate Condition 6.26]

IV.1.3 SCENIC RESOURCES: CONCLUSIONS OF LAW

Based on the foregoing findings, and subject to compliance with the site certificate conditions, the Council finds that the design, construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impact to scenic resources and values identified as significant or important in local land use plans, tribal land management plans and federal land management plans for any lands located within the analysis area, in compliance with the Scenic Resources Standard.

306 Final ASC, Section R.5.3.9, p. 11
IV.J. RECREATION [OAR 345-022-0100]

OAR 345-022-0100

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

(a) Any special designation or management of the location;
(b) The degree of demand;
(c) Outstanding or unusual qualities;
(d) Availability or rareness;
(e) Irreplaceability or irretrievability of the opportunity.

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IV.J.1 RECREATION: FINDINGS OF FACT

The applicant provided information about compliance with the Council’s Recreation Standard in
Exhibit T of the application. The analysis area for the Recreation Standard is the area within the site
boundary and five miles from the site boundary.

The area within the site boundary is privately owned, and it contains no County, State or federally
designated lands or recreational facilities. Recreational activities in the analysis area include upland bird
and big game hunting, rafting, boating, fishing, sightseeing, nature and wildlife photography, camping,
and bicycling. Horseback riding and hiking occur on a limited basis, and water-based recreation activities
occur on the Deschutes River.306 Similar opportunities for each of these activities are available on public
and private lands outside the analysis area.

IV.J.1.a. Deschutes River Corridor

The Deschutes River within the analysis area is designated as a federal Wild and Scenic River,
classified as a recreational river area, and a State Scenic Waterway. A section of the Deschutes River
within the analysis area is also part of the Lower Deschutes Wildlife Area. Public access within the
analysis area is generally gained via the Lower Deschutes River Back Country Byway, which follows
a BLM road along the east bank of the River ending at Mack’s Canyon. Very limited access on the
west side of the river is provided by county roads. Otherwise access is limited to boat, foot,
horseback, or mountain bike, via a series of trails on the east side of the River.

Primary recreational uses include boating, rafting, fishing, hiking, and camping in developed
campgrounds and primitive campsites. Secondary uses include upland bird hunting, sightseeing, and
nature/wildlife photography. Use levels are generally moderate to high, varying throughout the year
with peaks during rafting and fishing seasons.307

Due to the high degree of demand, the outstanding quality, uncommon availability and
irreplaceable opportunity, the Council finds that the site offers an important recreational opportunity.

IV.J.1.b. Mack’s Canyon Archeological and Recreational Site

306 Final ASC, Section T.2, p. 1
307 Final ASC, Section T.2.1, p. 2
Mack's Canyon was identified as a Special Management Area for its unusual prehistoric significance in the Two Rivers Resource Management Plan. The area contains the evidence of winter dwellings of native peoples. Round pit-house remnants were unearthed and documented in the late 1960s. The site is also listed in the National Register of Historic Places. Due to the uncommon availability and irreplaceable opportunity, the Council finds that the site offers an important recreational opportunity.

IV.J.1.c. Lower Deschutes Back Country Byway

This BLM road winds along the east bank of the Deschutes from near the town of Maupin northward, terminating at Mack's Canyon Recreation Area. The narrow gravel road is a popular river-access point for anglers and boaters. Other recreational uses include wildlife viewing, hiking, and upland bird hunting access. There are no developed viewpoints or waysides in the analysis area. The byway has outstanding quality since it follows the bank of the Deschutes River, providing scenic, recreational and wildlife viewing opportunities, and use levels are moderate. Due to the degree of demand and the outstanding quality, the Council finds that the site offers an important recreational opportunity.

IV.J.1.d. Wasco County Scenic Highway Segments

The Wasco County Comprehensive Plan (WCCP) identified portions of several highways within the county as scenic highway corridors. A portion of one scenic highway occurs within the recreation analysis area: US Highway 197 between Fivemile Creek and the town of Dufur. The primary recreational use includes road touring. There are no developed viewpoints along this portion of the highway. The highway is adjacent to scenic areas, historic sites, and areas of natural beauty. The applicant characterizes the highway as having a moderate demand, possessing an outstanding quality, somewhat uncommon availability, but a replaceable opportunity. The Council finds the Wasco County Scenic Highway as an important recreational opportunity according to the factors listed in the Recreation Standard.

Based on the noise analysis conducted for the proposed facility, noise would not be audible from any important recreational opportunities in the analysis area.

US Highway 197 is the primary access route linking the facility site to other local highways. Construction-related traffic may cause short-term traffic delays when trucks deliver construction-related equipment and the turbines, but those delays will be temporary and are not anticipated to have an adverse impact on highways or overall traffic movement in the facility area. Traffic impact to all recreational opportunities during operation of the proposed facility would be negligible.

Visual simulations provided by the applicant confirm that portions of turbines will be intermittently visible from various locations along the Deschutes River, including areas along the Deschutes Backcountry Scenic Byway that parallels the river between Maupin and Mack's Canyon. Portions of some turbines may be visible in the vicinity of Mack's Canyon Archeological and Recreational Area. Visible portions of turbines may include turbine blades, nacelles, and in some cases, portions of the tower. It is possible that several turbines visible from the Deschutes River will require FAA lighting, thus increasing impacts to the night sky. Generally, views of turbines would be limited to views of blades at distances of two or more miles. While turbines will be visible from the Deschutes River, they would not

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308 Final ASC, Section T.2.2, p. 2
309 The Mack Canyon Archeological Site was added to the National Register of Historic Places in 1975.
310 Final ASC, Section T.2.3, p. 2
311 Final ASC, Section T.2.4, pp. 2-3
dominate views and would generally be subordinate to the surrounding landscape. Therefore, the visual
impacts of the proposed facility on recreational opportunities in the analysis area would be negligible.\textsuperscript{312}

**IV.J.2 RECREATION: SITE CERTIFICATE CONDITIONS**

The Council is not requiring additional site certificate conditions specifically related to the
compliance with the Recreation Standard.

**IV.J.3 RECREATION: CONCLUSIONS OF LAW**

Based on the foregoing findings, the Council finds that the design, construction, and operation of the
facility, taking into account mitigation, are not likely to result in a significant adverse impact to the
important recreational opportunities identified in the analysis area, and therefore the proposed facility
complies with the Recreation Standard.

\textsuperscript{312} FOCG asserts that the Council must “ensure that the project will not adversely affect recreational resources
on the [Lower Deschutes Wild and Scenic River]” SRW-0133, p. 12. FOCG misstates the standard, which
requires a determination whether there is a “significant adverse impact” from the facility. This Order
analyzes visual impacts on the Lower Deschutes Wild and Scenic River in section IV.I, under the Scenic
Resources standard, OAR 345-022-0080, and section IV.E, Protected Areas standard, OAR 345-022-0040.
IV.K. PUBLIC HEALTH AND SAFETY STANDARDS [OAR 345-024-0010]

OAR 345-024-0010

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

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

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

IV.K.1 PUBLIC HEALTH AND SAFETY: FINDINGS OF FACT

The applicant addressed the Public Health and Safety Standards for Wind Energy Facilities in Exhibit DD of the application. Because the proposed facility would be located on private property, public access would be restricted. The Council includes the site certificate conditions described below to address safety issues associated with wind energy facilities.

Turbine blade tips would be a minimum of 29.5 meters above ground at the closest point of rotation (80 meter hub height with 101 meter rotor diameter). The turbine towers would have no exterior ladders or access to the turbine blades, and tower entry doors would be locked (Condition IV.K.2.1). There would be no public access to the nacelles or turbine tower interiors or to the electrical equipment contained therein. Pad-mounted step-up transformers would be located within locked cabinets (Condition IV.K.2.2). The proposed substation site would be enclosed with fencing and would have locked gates (Condition IV.K.2.3).

Both the Federal Aviation Administration (FAA) and the Oregon Department of Aviation are responsible for determining whether any turbine tower presents a hazard to aviation in Oregon. Condition IV.K.2.4 requires the certificate holder to submit a Notice of Proposed Construction or Alteration to the FAA and to the Oregon Department of Aviation for each turbine location when the final design configuration of the facility is known. The notice identifies the proposed final location of each turbine and met tower. After receiving the notices, the FAA conducts a flight path review to determine whether the proposed turbine locations would interfere with public or private air traffic. If the FAA finds that a proposed turbine would not present a safety hazard, the FAA issues a “Determination of No Hazard to Air Navigation” letter. The certificate holder must receive the FAA determination before beginning construction of each turbine. Similarly, in response to a Notice of Proposed Construction or Alteration, the Oregon Department of Aviation makes a determination whether the proposed construction would be a hazard to air navigation and whether further aeronautical study is necessary.

Based on site-specific geotechnical investigation, turbine towers and foundations and aboveground transmission line support structures will be designed according to applicable building codes to avoid dangers to human safety presented by structural failure or collapse and seismic hazards (see conditions in Section V.A, Structural Standards). The certificate holder must follow manufacturer’s recommended

313 Final ASC, Section K.5, p. 39
314 Final ASC, Section K.5, p. 39
315 ORS 836.530 authorizes the Oregon Department of Aviation to adopt rules to “define physical hazards to air navigation and determine whether specific types or classes of objects or structures constitute hazards.” The agency has adopted rules in OAR Chapter 738, Division 70, regarding physical hazards to air safety.
316 OAR 738-070-0090
handling instructions and procedures to prevent damage to towers or blades that could lead to failure
(Condition IV.K.2.5). 317

During operation, the certificate holder is required to have a safety-monitoring program and to
inspect turbine blades on a regular basis for signs of wear (Condition IV.K.2.6). All turbines are proposed
to have self-monitoring devices, which shall be linked to sensors at the O&M building to alert operators
to potentially dangerous conditions (Condition IV.K.2.7).

Condition IV.K.2.8 incorporates the language of Council rule OAR 345-026-017 and requires the
certificate holder to notify the Department and Wasco County within 72 hours if there is an attempt by
anyone to interfere with the safe operation of the facility, if there is a natural or human-caused event that
could threaten public health or safety, or if there is any fatal injury at the facility. 318

IV.K.2 Public Health and Safety: Site Certificate Conditions

Based on the review of the information provided in Exhibit DD of the ASC and other evidence in the
record, and to ensure compliance with the Public Health and Safety Standards in Oar 345-024-0010, the
Council includes the following conditions in the site certificate:

IV.K.2.1 The certificate holder shall construct turbine towers with no exterior ladders or access to the
turbine blades and shall install locked tower access doors. The certificate holder shall keep
tower access doors locked at all times, except when authorized personnel are present. [Site
Certificate Condition 7.1]

IV.K.2.2 For turbine types having pad-mounted step-up transformers, the certificate holder shall
install the transformers at the base of each tower in locked cabinets designed to protect the
public from electrical hazards and to avoid creation of artificial habitat for raptor prey. [Site
Certificate Condition 7.2]

IV.K.2.3 To protect the public from electrical hazards, the certificate holder shall enclose the facility
substation with appropriate fencing and locked gates. [Site Certificate Condition 7.3]

IV.K.2.4 Before beginning construction, the certificate holder shall submit a Notice of Proposed
Construction or Alteration to the Federal Aviation Administration (FAA) and the Oregon
Department of Aviation identifying the proposed final locations of turbine towers and
meteorological towers. The certificate holder shall promptly notify the Department of the
responses from the FAA and the Oregon Department of Aviation. [Site Certificate Condition 5.4]

IV.K.2.5 The certificate holder shall follow manufacturers' recommended handling instructions and
procedures to prevent damage to turbine or turbine tower components that could lead to
failure. [Site Certificate Condition 7.4]

IV.K.2.6 The certificate holder shall have an operational safety-monitoring program and shall inspect
all turbine and turbine tower components on a regular basis. The certificate holder shall
maintain or repair turbine and turbine tower components as necessary to protect public
safety. [Site Certificate Condition 7.5]

IV.K.2.7 The certificate holder shall install and maintain self-monitoring devices on each turbine,
linked to sensors at the operations and maintenance building, to alert operators to potentially
dangerous conditions, and the certificate holder shall immediately remedy any dangerous
conditions. The certificate holder shall maintain automatic equipment protection features in

317 Final ASC, Section DD.2, p. 1
318 Under ORS 469.401(2), the site certificate must include conditions “for the protection of public health and safety.”
SUMMIT RIDGE WIND FARM
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each turbine that would shut down the turbine and reduce the chance of a mechanical
problem causing a fire. [Site Certificate Condition 7.6]

IV.K.2.8 The certificate holder shall notify the Department of Energy and Wasco County within 72
hours of any occurrence involving the facility if:

(a) There is an attempt by anyone to interfere with its safe operation;
(b) A natural event such as an earthquake, flood, tsunami or tornado, or a human-caused
    event such as a fire or explosion affects or threatens to affect the public health and
    safety or the environment;
(c) There is a mechanical failure or accident on the site associated with construction or
    operation of the facility that may result in public health and safety concerns; or
(d) There is any fatal injury at the facility.

[Site Certificate Condition 7.7]

IV.K.3 PUBLIC HEALTH AND SAFETY: CONCLUSIONS OF LAW

Based on the foregoing findings and subject to compliance with the conditions, the Council finds
that the applicant can design, construct and operate the facility to exclude members of the public from
close proximity to the turbine blades and electrical equipment. The Council also finds that the applicant
can design, construct and operate the facility to preclude structural failure of the tower or blades that
could endanger public safety, and to have adequate safety devices and testing procedures designed to
warn of impending failure and to minimize the consequences of such failure, in compliance with the
IV.L. SITING STANDARDS FOR WIND ENERGY FACILITIES [OAR 345-024-0015]

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

(1) Using existing roads to provide access to the facility site, or if new roads are needed, minimizing the amount of land used for new roads and locating them to reduce adverse environmental impacts.

(2) Using underground transmission lines and combining transmission routes.

(3) Connecting the facility to existing substations, or if new substations are needed, minimizing the number of new substations.

(4) Designing the facility to reduce the risk of injury to raptors or other vulnerable wildlife in areas near turbines or electrical equipment.

(5) Designing the components of the facility to minimize adverse visual features.

(6) Using the minimum lighting necessary for safety and security purposes and using techniques to prevent casting glare from the site, except as otherwise required by the Federal Aviation Administration or the Oregon Department of Aviation.

IV.L.1 WIND ENERGY FACILITY SITING STANDARDS: FINDINGS OF FACT

The applicant addressed the Siting Standards for Wind Energy Facilities in Exhibit DD of the Final ASC. Exhibit DD contains information regarding the measures specified in the standard to reduce cumulative adverse environmental effects.

IV.L.1.a. Access Roads

The applicant proposes to use existing Wasco County roads to gain access to the proposed Summit Ridge facility, and does not propose any new roads to gain access to the site. The applicant does propose approximately 19 miles of new roads on-site, to allow travel to the different components of the proposed facility.\textsuperscript{319} Condition IV.D.2.7 requires the applicant to minimize the amount of new road constructed in order to minimize impacts to the site. The applicant proposes to use existing roads to the maximum extent possible, and to construct roads to a cross-section incorporating 20 feet of gravel with 10 foot compacted shoulders during construction to allow crane access along maintenance roads and thereby eliminate the need to construct crane paths.\textsuperscript{320} The applicant proposes to restore these 10 foot shoulders after the construction phase of the project in accordance with the Revegetation and Weed Control Plan, Exhibit 1 to this Final Order.

IV.L.1.b. Transmission Lines and Substations

This standard encourages the applicant to use underground transmission lines, combine transmission routes and minimize the number of new substations. The proposed facility includes an underground and aboveground 34.5 kV onsite collection system, a facility substation, and eight miles of 230 kV overhead transmission line leading to an interconnection substation at the point of connection to the BPA Big Eddy to Maupin-Redmond line.\textsuperscript{321}

The applicant stated that some portions of the collector system may be located aboveground if necessary due to site conditions that make it infeasible to run collector cable underground; the

\textsuperscript{319} Final ASC, Section W.3, p. 1
\textsuperscript{320} Final ASC, Section K.3.2, p. 4
\textsuperscript{321} Final ASC, Section DD.2, p. 2
applicant stated that it anticipated no more than 10 percent of the collector system will be located aboveground. The Council includes Condition VI.D.2.1, which limits the amount of aboveground 34.5 kV collector line to a total of five miles.

IV.L.1.c. Wildlife Protection

The standard encourages facility design that reduces the risk of injury to raptors or other vulnerable wildlife in areas near turbines or electrical equipment. A detailed discussion of impacts and mitigation of potential adverse impacts to wildlife are discussed with the Threatened and Endangered Species Standard in Section IV.H of this document, and the Fish and Wildlife Habitat Standard in Section IV.G. The applicant proposes to design the facility to minimize raptor injury by adhering to the 2006 Avian Powerline Interaction Committee suggested practices for raptor protection on power lines. In addition, for turbine types having pad-mounted step-up transformers, the transformer cabinets at each turbine would be designed to avoid use by raptors or prey species as artificial habitat (Condition IV.K.2.2). Turbine pad areas would have a 15-foot gravel apron on all sides of the turbine tower for fire protection and to help to reduce weeds and reduce cover for raptor prey near turbines (Condition V.C.2.8). The proposed turbine towers would be smooth steel structures rather than lattice structures, limiting avian perching opportunities in proximity to turbine blades (Condition IV.H.2.1). Condition IV.H.2.1 also requires that met towers be freestanding structures without guy lines.

IV.L.1.d. Visual Features

The standard encourages the certificate holder to design the proposed facility to minimize adverse visual features. Turbine towers, nacelles, and rotors would be uniformly painted in a neutral white color (Condition IV.1.2.1). Pad-mounted cabinets at the base of each turbine tower would be uniformly painted in a neutral gray, white, off-white or earth-tone color to help them blend into the landscape. Low-reflectivity finishes would be used on the O&M building and substation equipment and fencing. No advertising signs would be posted at the facility. Signs would be minimized, and the facility would not include any unusual visual features.

IV.L.1.e. Lighting

The standard requires the use of the minimum lighting necessary for safety and security purposes and the use of techniques to prevent casting glare from the site. The standard does not restrict the use of lighting otherwise required by the FAA or the Oregon Department of Aviation. The facility would have the minimum nighttime turbine tower lighting required by the FAA. The O&M building and the substation would have security lighting that would be shielded or downward-directed to reduce glare. During construction, lighting would be restricted to the minimum necessary for construction, directed to illuminate the work area and shielded or downward-directed to reduce glare. Minimum lighting would be used for necessary nighttime repairs during operation. The Council includes Conditions IV.D.2.3 and IV.1.2.3 to address restrictions on lighting at the facility.

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322 Final ASC, Section DD.2, p. 3
323 Final ASC, Section R.6, pp. 11-12
324 Final ASC, Section K.5, p. 16
325 Final ASC, Section R.6, p. 12
IV.L.2 Wind Energy Facility Siting Standards: Site Certificate Conditions

Because there are numerous site certificate conditions imposed elsewhere in this Order that address the requirements directly applicable to this standard, the Council is not requiring additional conditions specifically related to the compliance with the Wind Energy Facility Siting Standards.

IV.L.3 Wind Energy Facility Siting Standards: Conclusions of Law

Based on the foregoing findings, the Council finds that the proposed design, construction, and operation of the proposed Summit Ridge facility would minimize cumulative adverse environmental effects in the vicinity by practicable measures in compliance with the requirements of the Council's Siting Standards for Wind Energy Facilities in OAR 345-024-0015.
IV.M. SITING STANDARDS FOR TRANSMISSION LINES [OAR 345-024-0090]

OAR 345-024-0090

To issue a site certificate for a facility that includes any high voltage transmission line under Council jurisdiction, the Council must find that the applicant:

(1) Can design, construct and operate the proposed transmission line 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;

(2) Can design, construct and operate the proposed transmission line so that induced currents resulting from the transmission line and related or supporting facilities will be as low as reasonably achievable.

IV.M.1 TRANSMISSION LINE SITING STANDARD: FINDINGS OF FACT

The applicant provided information on the Siting Standards for Transmission Lines in Exhibit AA of the application. These standards address safety hazards associated with electric fields around transmission lines. Section (1) of OAR 345-024-0090 sets a limit for electric fields from transmission lines of not more than 9 kV per meter at one meter above the ground surface in areas that are accessible to the public. Section (2) requires measures to reduce the risk of induced current.

IV.M.1.a. Electric Fields

The proposed Summit Ridge facility includes underground and aboveground 34.5 kV collector lines and one approximately eight-mile segment of aboveground 230 kV transmission line. The electric field associated with the underground lines is contained within the insulation of the cable and the soil over the line. Due to this soil and insulation there would be no measurable electric field at the surface (or at one meter above the ground surface).

The applicant calculated the electric field that would be produced by the both the aboveground 34.5 kV collector lines and the proposed 230 kV transmission line using BPA’s Corona and Field Effect Program (Version 3). The assumed peak line loading for the aboveground 34.5 kV collector lines was 600 amperes per phase. The minimum conductor ground clearance was assumed to be 20 feet. For the 34.5 kV collector lines, the calculated maximum electric field strength at one meter above ground surface was roughly 0.5 kV per meter. For the 230 kV transmission line, the assumed peak line loading was 502 amperes per phase and the assumed minimum ground clearance was 25 feet. The calculated maximum electric field strength at one meter above ground surface was 3.6 kV per meter.

IV.M.1.b. Induced Current

The magnetic and electric fields around alternating current transmission lines can induce current or voltage in nearby objects. Induced currents are not hazardous to people but can be a concern for railroad communications and cathodic protection systems for pipelines that parallel transmission lines. An ungrounded fence or metal roof located within an electric field can carry an induced voltage. Induced voltage can be a hazard when the ungrounded object is shorted to ground. The induced voltage can result in an electrical shock when a person or animal touches the object, which allows a current to flow to the ground. Grounding of potentially charged structures minimizes the hazard by providing path for the electric current. Passing current through the grounding wire

326 Final ASC, Section AA.2, p. 3
327 Final ASC, Section AA.2, pp. 2-5
328 Final ASC, Section AA.2, p. 4 and Table AA-1
minimizes the current that would otherwise flow through a person or animal that comes in contact
with the object. Because the underground 34.5 kV cables do not create an electric field at the ground
surface, they would not present an induced voltage risk. The proposed aboveground 34.5 kV and
230 kV transmission lines could cause induced voltage. Condition IV.M.2.2 requires the certificate
holder to develop and implement a program to prevent hazards from induced voltage. To ensure
compliance with Condition IV.M.2.2, the Council also includes Condition IV.M.2.3, requiring the
certificate holder to maintain a copy of its electrical protection plan at the O&M building and to
make it available upon request by ODOE staff.

The Council finds that the applicant can design, construct and operate the proposed transmission
line 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 and that induced currents from the proposed
transmission will be as low as reasonably achievable.

**IV.M.2 TRANSMISSION LINE SITING STANDARD: SITE CERTIFICATE CONDITIONS**

Council rule OAR 345-027-0023(4) provides standard condition language to address public
safety for transmission lines, including the requirement to design transmission lines and implement
programs that reduce the risks from induced current. In compliance with this requirement, and based
on the information provided in Exhibit AA of the ASC and other evidence in the record, and to
ensure compliance with the Transmission Line Siting Standard, the Council includes the following
conditions in the site certificate:

**IV.M.2.1** The certificate holder must design, construct and operate the transmission line in
accordance with the requirements of the National Electrical Safety Code (American

[Mandatory Condition OAR 345-027-0023(4)(a)]

**IV.M.2.2** The certificate holder must develop and implement a program that provides reasonable
assurance that all fences, gates, cattle guards, trailers, or other objects or structures of a
permanent nature that could become inadvertently charged with electricity are grounded
or bonded throughout the life of the line. [Site Certificate Condition 7.10]

[Mandatory Condition OAR 345-027-0023(4)(b)]

**IV.M.2.3** A current copy of the electrical protection plan developed in compliance with Condition
IV.M.2.2 must be available at the O&M building and provided upon request by ODOE
staff. [Site Certificate Condition 7.11]

**IV.M.3 TRANSMISSION LINE SITING STANDARD: CONCLUSIONS OF LAW**

Based on the foregoing findings, and subject to compliance with the site certificate conditions,
the Council finds that the design, construction, and operation of the transmission line for the
proposed facility will not result in alternating current electric fields that exceed 9 kV per meter at
one meter above the ground surface in areas accessible to the public and that induced currents
resulting from the transmission lines will be as low as reasonably achievable and, therefore, the
proposed facility complies with the Siting Standards for Transmission Lines.
V. STANDARDS NOT APPLICABLE TO SITE CERTIFICATE ELIGIBILITY

Under ORS 469.501(4), the Council may not approve or deny a site certificate based on the Council’s Structural Standard; Historic, Cultural and Archaeological Resources Standard; Public Services Standard; or Waste Minimization Standard. However, the Council may impose site certificate conditions based on the requirements of these standards.

V.A. STRUCTURAL STANDARD [OAR 345-022-0020]

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

(a) The applicant, through appropriate site-specific study, has adequately characterized the site as to Maximum Considered Earthquake Ground Motion identified at International Building Code (2003 Edition) Section 1615 and maximum probable ground motion, taking into account ground failure and amplification for the site specific soil profile under the maximum credible and maximum probable seismic events; and

(b) The applicant can 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 maximum probable ground motion events. As used in this rule "seismic hazard" includes ground shaking, ground failure, landslide, liquefaction, lateral spreading, tsunami inundation, fault displacement, and subsidence; and

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

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

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

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V.A.1 STRUCTURAL STANDARD: FINDINGS OF FACT

The applicant provided information regarding the seismic characteristics of the site and possible seismic and geological hazards in Exhibit H of the application. The proposed Summit Ridge facility site is located in the Columbia Plateau Physiographic Province, which consists of a large plateau underlain by a series of basalt flows. The top of the plateau tends to be relatively flat, but ephemeral streams have dissected the plateau into steep-sided canyons. The Deschutes River canyon forms the eastern boundary of the site; drainages on the east and southeast portions of the site flow toward the Deschutes River, and drainages on the west and northwest portions of the site flow toward Fifteen Mile Creek. Elevations at the site range from approximately 270 feet at the Deschutes River to 2,800 feet on the top of the plateau.\(^{29}\)

The applicant’s consultant (CH2M HILL) conducted a limited geotechnical and geological site reconnaissance to supplement a literature review.\(^{30}\) Three sources of potential seismic hazards were

\(^{29}\) Final ASC, Section H.2.1, p. 2

\(^{30}\) Final ASC, Section H.3.2, p. 5
identified in the proposed project area: interplate events in the Cascadia Subduction Zone, intraslab events within the Cascadia Subduction Zone, and crustal events. CH2M HILL reported that ruptures of the interplate or intraslab Cascadia Subduction Zone could result in earthquakes with a moment magnitude of approximately 9.0 or 7.5, respectively. The third potential source of earthquakes was identified as movement along crustal faults. In the vicinity of the proposed facility, earthquakes occur within the crust of the North American tectonic plate when built-up stresses near the surface are released through fault rupture.

Under OAR 345-021-0010(1)(h)(F)(ii), the Council requires applicants to identify earthquake sources capable of generating median peak ground accelerations (PGA) greater than 0.05g on rock at the site. Based on its calculations CH2M HILL characterized the risk of seismic hazards at the proposed facility as "low," considering the potential for fault displacements, the behavior of subsurface materials, and the depth of groundwater in the area.

CH2M HILL assessed the risk of non-seismic geological hazards, such as landslides, erosion potential, collapsing soils and volcanic eruptions; the risks of non-seismic geological hazards were characterized as low. The proposed facility layout is designed to avoid steep slopes and drainages that could be subject to debris flows, rockfalls, landslides, and soil creep.

The soils within the site boundary are susceptible to erosion from wind and water. The applicant characterized the soils on the site as moderate to highly erodible by sheet erosion and rill erosion by water; the applicant indicated that the soils on site have a low to moderate susceptibility to wind erosion. Silty soils are sometimes susceptible to collapse and/or piping. The loess in the area is typically silty in composition and susceptible to piping or collapse; however, on the project site, loess is either very thin or absent, so the risk of piping or collapse is very low.

Direct or indirect effects could also be experienced at the proposed site as a result of volcanic eruption. Mount St. Helens, which erupted in 1980, is approximately 75 miles from the site. Other volcanoes considered to be active are within 100 miles from the site, including Mount Jefferson, Mount Adams, and Mount Hood.

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331 Final ASC, Section H.7.1, pp. 7-8
332 Earthquake magnitude is measured in moment magnitude ("Mw"). The amount of seismic force is given in "g," a unit of force equal to the force exerted by gravity, which indicates the force to which a body is subjected when it is accelerated.
333 Final ASC, Section H.7.1, p. 8
334 g = acceleration from gravity
335 To fulfill this requirement, CH2M HILL calculated the maximum credible earthquake (MCE) for each of the three identified sources of seismic hazard. The MCE is the maximum event that each source is believed to be capable of producing. The estimated crustal MCE, with a modal moment magnitude of 5.2, would have a mean PGA of 0.20g with an epicentral distance of 13 kilometers (km). The estimated intraslab MCE has a modal moment magnitude of 8.3, a mean PGA of 0.09g, and an epicentral distance of 226 km. The estimated interplate MCE has a modal moment magnitude of 9.0, a mean PGA of 0.20g, and an epicentral distance of 224 km, Final ASC, Table H-2.
336 Final ASC, Section H.7.4, pp. 11-12
337 Final ASC, Section H.8, pp. 12-14
338 Final ASC, Section H.8.1.1, p. 13
339 Final ASC, Section H.8.1.3, p. 14
340 Final ASC, Section H.8.1.4, p. 14
341 Final ASC, Section H.8.1.2, p. 13
The applicant consulted with the Oregon Department of Geology and Mineral Industries (DOGAMI) regarding the appropriate scope and methods for on-site geotechnical investigations.\textsuperscript{342} The applicant states that it will conduct a detailed geotechnical exploration of the facility site prior to construction. The exploration would assess subsurface soil and geologic conditions and provide information that would be used to identify geological or geotechnical hazards. The applicant proposes to use this information to design turbine foundations and foundations of related and supporting facilities and to design the installation of underground collector cables and overhead collector and transmission lines.

**V.A.2 STRUCTURAL STANDARD: SITE CERTIFICATE CONDITIONS**

Based on its review of the information in Exhibit H of the ASC, the foregoing findings and other evidence in the record, and, in accordance with ORS 469.501(4) and OAR 345-022-0020(2), the Council includes the following site certificate conditions to address potential seismic and non-seismic geologic hazards at the site:

**V.A.2.1** Before beginning construction, the certificate holder must conduct a site-specific geotechnical investigation and report its findings to the (DOGAMI) and the Department. The certificate holder shall conduct the geotechnical investigation after consultation with DOGAMI and in general accordance with DOGAMI open file report 00-04 “Guidelines for Engineering Geologic Reports and Site-Specific Seismic Hazard Reports.” [Site Certificate Condition 5.8]

**V.A.2.2** The certificate holder shall notify the Department, the State Building Codes Division and DOGAMI 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 DOGAMI and the Building Codes Division and to propose mitigation actions. [Site Certificate Condition 6.13]

[Optional: Mandatory Condition OAR 345-027-0020(13)]

**V.A.2.3** The certificate holder shall notify the Department, the State Building Codes Division and DOGAMI promptly if shear zones, artesian aquifers, deformations or clastic dikes are found at or in the vicinity of the site. [Site Certificate Condition 6.14]

[Optional: Mandatory Condition OAR 345-027-0020(14)]

**V.A.2.4** The certificate holder shall design and construct the facility in accordance with requirements set forth by the Oregon Building Codes Division and any other applicable codes and design procedures. [Site Certificate Condition 6.8]

**V.A.2.5** The certificate holder shall design, engineer and construct the facility to avoid dangers to human safety presented by non-seismic hazards. As used in this condition, “non-seismic hazards” include settlement, landslides, flooding and erosion. [Site Certificate Condition 6.10]

**V.A.2.6** 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. “Seismic hazard” includes ground shaking, landslide, liquefaction, lateral spreading, tsunami inundation, fault displacement and subsidence. [Site Certificate Condition 6.11]

[Optional: Mandatory Condition OAR 345-027-0020(12)]

\textsuperscript{342} Final ASC, Section H.4, p. 5
V.B.  HISTORIC, CULTURAL AND ARCHAEOLOGICAL RESOURCES [OAR 345-022-0090]

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

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

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

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

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

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V.B.1 HISTORIC, CULTURAL AND ARCHAEOLOGICAL RESOURCES: FINDINGS OF FACT

The applicant provided information regarding historic, cultural, and archaeological resources in Exhibit S of the application. The analysis area for potential impacts to these resources is the area within the site boundary, which is entirely composed of private lands.

The applicant engaged AMEC Earth and Environmental (AMEC) to conduct a survey for historic, cultural, and archaeological resources; the study area included a 400-foot wide corridor centered on the proposed turbine locations and a 1,000-foot wide corridor centered on the proposed transmission line. AMEC reviewed archaeological records maintained by SHPO relevant to the proposed site of the Summit Ridge facility and also reviewed General Land Office maps, photographs, and historic archival materials available at The Dulles Public Library. Background research was accompanied by two pedestrian surveys of the subject site. AMEC surveyed the proposed wind farm area in May 2009, and surveyed the proposed transmission line site in November 2009.

The proposed Summit Ridge facility site is located within the traditional territory of the Confederated Tribes of the Warm Springs Reservation (CTWSR). In addition, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Siletz, and the Confederated Tribes of Grand Ronde were identified as potentially interested parties. The applicant contacted these entities, and received a response from the Confederated Tribes of Grand Ronde indicating that this project was outside of their area of interest, and from the CTWSR indicating an interest in the project. AMEC contacted a CTWSR representative to follow up on May 29, 2009. The representative confirmed that the CTWSR are interested in the project; consultation with the CTWSR is ongoing.

The pedestrian field surveys performed at the site identified 19 prehistoric archaeological sites, one historic archaeological site, 30 isolated finds, and five historic buildings/building complexes. Fourteen of the prehistoric archaeological sites identified are significant and are possibly eligible for listing on the

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343 Confidential 4-13-10 Archaeological Survey, April 13, 2010 (SRW-0042)
344 Confidential Supplemental Archaeological Survey, April 20, 2010 (SRW-0043)
345 SRW-0042
346 Id.
NRHP. One historic building, the Center Ridge Schoolhouse, is possibly eligible for NRHP listing. No resources that are already identified on the NRHP were identified at the subject site.

The applicant states that all identified sites were considered significant and that the proposed turbine locations were redesigned to avoid encroachment to any site. Isolated finds are not eligible for listing on the NRHP, so no action was necessary to mitigate these finds. The applicant proposes a 100-foot avoidance buffer for all lithic scatter sites, and a 200-foot buffer around rock feature sites. The Council includes Condition V.B.2.1, which incorporates the avoidance measures proposed by the applicant.

The applicant proposes to avoid all identified archaeological or cultural sites, regardless of eligibility for listing on the NRHP. The applicant also proposes to employ an archaeological monitor to delineate "no-work" areas around identified archaeological sites, closely monitor construction activity and identify any inadvertent finds. In accordance with Oregon law (ORS 97.745 and ORS 358.920), the applicant proposes to cease all ground-disturbing activities in the immediate area if any archaeological or cultural resources are found during construction of the facility until a qualified archaeologist can evaluate the significance of the find.

V.B.2 Historic, Cultural and Archaeological Resources: Site Certificate Conditions

Based on its review of the information in Exhibit S of the ASC, the foregoing findings and other evidence in the record, and, in accordance with ORS 469.501 (4) and OAR 345-022-0090(2) the Council includes the following site certificate conditions to address impacts of the facility on Historic, Cultural and Archaeological Resources:

V.B.2.1 Before beginning construction, the certificate holder shall label all identified historic, cultural or archaeological resource sites on construction maps and drawings as "no entry" areas. The applicant shall implement a 200 foot buffer for all rock alignment and cairn sites, and shall implement a 100 foot buffer for all other archaeological sites. The certificate holder may use existing private roads within the buffer areas but may not widen or improve private roads within the buffer areas. The no-entry restriction does not apply to public road rights-of-way within the buffer areas. [Site Certificate Condition 11.1]

V.B.2.2 Before beginning construction, the certificate holder shall provide to the Department a map showing the final design locations of all components of the facility, the areas that would be temporarily disturbed during construction and the areas that were previously surveyed as described in the Application for Site Certificate. [Site Certificate Condition 11.2]

V.B.2.3 The certificate holder shall hire qualified personnel to conduct field investigation of all areas to be disturbed during construction that lie outside the previously-surveyed areas. The certificate holder shall provide a written report of the field investigation to the Department and to the Oregon State Historic Preservation Office (SHPO). If any potentially significant historic, cultural or archaeological resource sites are found during the field investigation, the certificate holder shall instruct all construction personnel to avoid the identified sites and shall implement appropriate measures to protect the sites, including the measures described in Condition

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347 Final ASC, Section S.1, p. 1
348 Final ASC, Section S.4.2, p. 4
349 SRW-0042
350 Final ASC, Section S.4.3, p. 4
351 Final ASC, Section S.4.3, p. 4
352 Final ASC, Attachment S-1
353 Final ASC, Attachment S-1
V.B.2.5 and in accordance with the Archaeological Monitoring Plan required per Condition V.B.2.6. [Site Certificate Condition 11.3]

V.B.2.4 The certificate holder shall ensure that a qualified archaeologist, as defined in OAR 736-051-0070, instructs construction personnel in the identification of cultural materials and avoidance of accidental damage to identified resource sites. Records of such training shall be maintained at the Operations and Maintenance Building and made available to authorized representatives of the Oregon Department of Energy upon request. [Site Certificate Condition 11.4]

V.B.2.5 The certificate holder shall ensure that construction personnel cease all ground-disturbing activities in the immediate area if any archaeological or cultural resources are found during construction of the facility until a qualified archeologist can evaluate the significance of the find. The certificate holder shall notify the Department and SHPO of the find. If the SHPO determines that the resource is significant, the certificate holder shall make recommendations to the Council for mitigation, including avoidance, field documentation and data recovery, in consultation with the Department, SHPO, interested tribes and other appropriate parties. The certificate holder shall not restart work in the affected area until the certificate holder has demonstrated to the Department and the SHPO that it has complied with archaeological resource protection regulations. [Site Certificate Condition 11.5]

V.B.2.6 The certificate holder shall prepare and implement an Archaeological Monitoring Plan for construction and maintenance activities to address and mitigate impacts from exposure of unanticipated or previously unidentified cultural properties that may be exposed during construction or operation of the facility. A current copy of the plan must be maintained at the Operations and Maintenance Building and made available to authorized representatives of the Oregon Department of Energy upon request. [Site Certificate Condition 11.6]
V.C. **PUBLIC SERVICES [OAR 345-022-0110]**

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

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

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V.C.1 **PUBLIC SERVICES: FINDINGS OF FACT**

The applicant provided information in Exhibit U of the ASC about the potential impacts of the facility on public services. The applicant’s analysis area for public services is the area within the site boundary and the area within a 30-mile radius of the site, which includes portions of Gilliam, Hood River, Sherman, Wasco, and Klickitat (WA) counties. Exhibit U discusses each of the public services listed in the sections below. Section U.5.12 of Exhibit U included a list of mitigation measures proposed by the applicant.

In accordance with OAR 345-027-0020(10), in those cases where the applicant has proposed measures in the ASC to mitigate impacts to the ability of providers in the analysis area to provide public services, the Council deems the measures to be binding commitments by the applicant and includes the measures as conditions within the site certificate.

V.C.1.a. **Sewage, Storm Water, and Solid Waste**

During construction of the Summit Ridge facility, the impact on sewage treatment will be minimal. No community in the analysis area currently provides storm water drainage service or solid waste management services to the facility site, with the exception of minimal storm water drainage facilities associated with public roads maintained by Wasco County. Condition V.C.2.1 requires that the certificate holder provide and maintain portable toilets for on-site sewage handling during construction. During operation, sewage from the O&M buildings would be discharged to an on-site septic system (Condition V.C.2.2).

Condition IV.C.2.1 requires the certificate holder to conduct construction activities in accordance with an NPDES 1200-C stormwater permit, which would ensure appropriate on-site handling of storm water and measures to reduce erosion. The applicant must use appropriate measures to avoid or reduce erosion from storm water run-off during construction and operation of the facility.

Solid waste generated during construction and operation will be recycled to the extent practical. Conditions V.D.2.1 and V.D.2.2, discussed in the following section (V.D.2, Waste Minimization) requires the certificate holder to use licensed commercial waste-hauling services to remove non-recycled solid waste to a local landfill. The nearest landfill is the Wasco County Landfill.

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354 Final ASC, Section U.4.2, p. 15
355 Final ASC, Section U.4.2, p. 15. The on-site septic system would be subject to a DEQ Construction/Installation Permit.
356 Final ASC, Section I.5, p. 5 and Attachment I-1
357 Final ASC, Section U.4.5, pp. 16-17
V.C.1.b. Water

The applicant estimates that up to 90,000 gallons of water will be needed daily during peak construction activity for dust control, road and earthwork compaction, and concrete mixing.\textsuperscript{358} The applicant provided Attachment U-1, which is a letter dated July 30, 2009 from the City of The Dalles stating that the city will provide this water during the construction phase of the proposed project. Alternatively, the applicant could obtain water from an existing or newly constructed on-site well under a limited license issued to the landowner or construction contractor.

During operation, less than 5,000 gallons of water per day will be needed for incidental uses (kitchen and restroom) at the proposed O&M building.\textsuperscript{359} This water is proposed to come from a new on-site well. Condition VI.C.2.1 discussed in Section VI.C (Groundwater Act) will limit the use of well-water to no more than 5,000 gallons per day (the limit for industrial wells exempted from OWRD license requirements). The facility's use of water during operation will have no impact on municipal water systems. The small volume of water needed during facility operation is not likely to have an impact on other wells that serve local landowners.

V.C.1.c. Housing

The applicant estimates that construction of the Summit Ridge facility will employ 26 (average workforce) to 250 (maximum during peak construction months) resident and transient workers.\textsuperscript{360} Based on the assumption that up to 80 percent of the construction workforce will come from outside the area, as many as 200 workers might need temporary housing.\textsuperscript{361} Construction of the facility is expected to take approximately 16 months. The applicant expects that most construction workers will seek lodging in area motels and other temporary housing opportunities (e.g., trailer or RV parks).\textsuperscript{362, 363} The applicant estimates that, during operation, the Summit Ridge facility will employ approximately 26 people.\textsuperscript{364} Assuming that roughly 80% of these workers are new residents who move into the area, the addition of roughly 20 households would not have a significant adverse effect on available housing.\textsuperscript{365}

V.C.1.d. Police and Fire Protection

Police services for the facility site will be provided by the Wasco County Sheriff's Office. Backup law enforcement service is available from the Gilliam County Sheriff's Office, Hood River County Sheriff's Office, and Sherman County Sheriff's Office.\textsuperscript{366} The applicant consulted the Wasco County Sheriff's Office about police services during construction and operation of the proposed facility; which indicated that no adverse impacts are anticipated to police services in the area as a

\textsuperscript{358} Final ASC, Section U.4.3, p. 15
\textsuperscript{359} Final ASC, Section U.4.3, p. 15
\textsuperscript{360} Final ASC, Section U.4.6, p. 18 and Section U.4.6.1, p. 18
\textsuperscript{361} Final ASC, Section U.4.6.1, p. 18
\textsuperscript{362} Final ASC, Section U.4.6.1, p. 18
\textsuperscript{363} The applicant has not proposed to provide temporary worker housing pursuant to OAR 660-033-0130, and this site certificate does not approve such housing for inclusion in the conditional use permit to be issued by Wasco County.
\textsuperscript{364} Assuming that up to 20 of the operations and maintenance positions would be filled by workers coming from outside the analysis area and assuming a household size of 2.47 people for each worker, the applicant estimates that approximately 50 new permanent residents could be added to the local population (Final ASC, Section U.4.1.1, p. 13).
\textsuperscript{365} The applicant provided information about housing supply in the analysis area (Final ASC, Table U-3).
\textsuperscript{366} Final ASC, Section U.4.8, p. 20
result of the proposed facility’s construction or operation. Condition V.C.2.3 requires the certificate holder to establish and maintain communication with the local law enforcement personnel during construction and operation of the Summit Ridge facility.

The southern half of the site is not covered by either a rural fire protection district or a city’s fire department. Protection for non-structural fires in this area is provided by the U.S. Forest Service (USFS), BLM or the Oregon Department of Forestry (ODF). Additional support is available from other adjacent fire protection districts, the nearest being the City of Dufur Fire District.

The northern area of the Facility site lies within the Columbia Rural Fire District, which is a non-tax fire district comprised of approximately 75 landowners. Member of this district rely on available farm equipment, mainly 100-gallon water tanks placed in the back of trucks, for fire suppression. The landowners occasionally receive assistance from outside the district. The ODF maintains a mutual aid agreement with the district and BLM sometimes responds.

The applicant provided a letter from the City of Dufur Fire District dated July 24, 2009, which states that the Columbia Rural Fire District would be the first responder to a potential ground fire while Dufur Fire would be the first responder for a structure fire. Dufur Fire would also be the first responder in the event of a medical emergency occurring in the Summit Ridge area; however, the district’s ability to provide medical service is currently limited to ground rescue. Dufur Fire is not equipped or trained for rope rescue operations. To accommodate this limited ability, the applicant proposes to train and equip construction contractors and operations personnel for tower rescue.

Conditions V.C.2.4 and V.C.2.5 require the certificate holder to provide appropriate tower rescue training and equipment during construction and operation of the facility.

To minimize the potential of fires starting from construction-related activities, the applicant proposes to establish roads prior to construction to minimize vehicle contact with dry grass. Idling vehicles in grassy areas will be avoided; and open flames, such as cutting torches, will be kept away from grassy areas. Staging areas will be graveled to minimize fire potential; in addition, a water truck will be available on site to respond to any potential fire incidents. In the event of a critical injury, helicopter service could be dispatched to the facility. Accident victims would be transported to the Mid-Columbia Medical Center in The Dalles.

Conditions V.C.2.6 through V.C.2.11, related to emergency response and fire protection at the proposed facility, ensure compliance with these representations.

V.C.1.e. Health Care

Conditions V.C.2.4 and V.C.2.5 require the certificate holder to implement on-site health and safety plans during construction and operation of the facility. The only full-service medical facility located within the analysis area is the Mid-Columbia Medical Center, located in The Dalles. Other hospitals located in the area include Providence Hood River Memorial Hospital, a 25-bed critical access hospital located in Hood River, Klickitat Valley Hospital, which offers inpatient care and some minor surgery services, and Skyline Hospital, a 32-bed facility located in White Salmon, WA.

Ambulance service to the proposed project site would be provided by either the Moro Rural Fire Protection District or the Dufur Fire District, which contracts with Mid-Columbia Fire and Rescue (The Dalles) and the Dufur Volunteer Ambulance to provide ambulance service to areas adjacent to

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367 Final ASC, Section U.4.8, p. 20 and Attachment U-2
368 Final ASC, Section U.4.9, p. 21
369 Final ASC, Section U.4.9, p. 21 and Attachment U-3
370 Final ASC, Section K.6.2.8, pp. 60-61
371 Final ASC, Section U.4.9, p. 21
372 Final ASC, Section U.4.10, p. 22
the site. The applicant does not anticipate that the number of construction workers temporarily
locating in the area and the number of permanent employees and their families moving into the area
will adversely affect the ability of these providers to deliver health services.

V.C.1.f. Schools

The Dufur, South Wasco, and North Wasco School Districts provide the school services located
closest to the proposed project site. These school districts are currently experiencing growth in
student population; however, the proposed facility is not expected to have a significant impact in
student population in the analysis area. Construction workers who are not already living in the
analysis area are not likely to move their families to the area for the temporary duration of the work.
Facility construction, therefore, is not likely to increase the number of students attending area schools.
The estimated increase within the area of up to 20 new households during operation of the proposed
facility is not expected to have a significant adverse impact on local schools.

V.C.1.g. Traffic Safety

The applicant expects that construction-related traffic will use I-84 and US Highway 197 to
access the proposed project site. From these highways, construction-related traffic is expected to use
Wasco County public roads to access the private land on which the proposed project is located.
State designated rural collectors such as Emerson Loop Road and Boyd Loop Market Road could
potentially be used for access into northern and southern portions, respectively, of the Facility area.
Local roads are generally gravel rural roadways with little traffic other than local agricultural and
residential traffic. Portions of local roads that will be used include Fifteen Mile Road, Roberts
Market Road, Summit Ridge Market Road, Center Ridge Market Road, Old Tygh Market Road,
Wrentham Market Road, and Long Hollow Market Road. The applicant proposes to improve
roughly six miles of public roads to accommodate heavy equipment and construction traffic
associated with the proposed project.

Private roads will also be used for access to turbines, laydown areas and the proposed O&M
facility on the site itself. The applicant proposes to use existing private roads to the extent possible
and proposes to construct approximately 19 miles of new private roads where necessary to access the
site. New roads constructed to accommodate cranes and other large equipment will have a cross-
section that includes 20 feet of graveded surface with a 10-foot compacted shoulder on either side; at
the end of construction the new roadways will be removed, or at the request of the landowners the 10-
foot shoulders are proposed to be restored to farmable condition.

Construction-related traffic may cause short-term traffic delays when trucks deliver construction-
related equipment and the turbines; the applicant expects that those delays will not have a significant

373 Final ASC, Section U.4.10, pp. 21-22
374 Final ASC, Section U.4.9, p. 21
375 Final ASC, Section U.4.10, p. 22
376 Final ASC, Section U.4.11, p. 22
377 Final ASC, Section U.4.11, p. 23
378 Final ASC, Section U.4.7, p. 19
379 Final ASC, Section U.4.7, p. 19
380 Final ASC, Section U.4.7, p. 19
381 Final ASC, Section U.4.7, p. 19
382 Final ASC, Section U.4.7, p. 19
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adverse impact on traffic safety or the flow of traffic on local roads due to the low volume of traffic
on the roads on which delays will occur. 383

Truck traffic during operations will be minimal. The applicant expects that typically there will be
two to three vehicles on-site to perform routine services and maintenance on the turbines.
Infrequently, larger delivery vehicles will be on site to deliver materials and parts to the turbines or
the O&M facility. Permanent staff for the proposed Summit Ridge facility, approximately 26 full and
part-time employees, will use the improved local road system. 384 Because the traffic generated from
these employees is small and existing usage is low, no adverse impacts to the road system as a result
of new permanent staff are anticipated.

V.C.2 PUBLIC SERVICES: SITE CERTIFICATE CONDITIONS

Based on its review of the information in Exhibit U of the ASC, the foregoing findings of fact and
other evidence in the record, and in accordance with ORS 469.501(4) and OAR 345-022-0110 (2), the
Council includes the following site certificate conditions to address impacts of the facility on Public
Services:

V.C.2.1 The certificate holder shall provide portable toilets for on-site sewage handling during
construction and shall ensure that they are pumped and cleaned regularly by a licensed
contractor who is qualified to pump and clean portable toilet facilities. [Site Certificate
Condition 6.2]

V.C.2.2 During operation, the certificate holder shall discharge sanitary wastewater generated at the
Operations and Maintenance building to a licensed on-site septic system in compliance with
State of Oregon permit requirements. The certificate holder shall design the septic systems
for a discharge capacity of less than 5,000 gallons per day. [Site Certificate Condition 7.8]

V.C.2.3 During construction and operation of the facility, the certificate holder shall provide for on-
site security and shall establish good communications between on-site security personnel
and the Wasco County Sheriff’s Office. During operation, the certificate holder shall ensure
that appropriate law enforcement agency personnel have an up-to-date list of the names and
telephone numbers of facility personnel available to respond on a 24-hour basis in case of an
emergency on the facility site. [Site Certificate Condition 8.1]

V.C.2.4 During construction, the certificate holder shall require that all on-site construction
contractors develop and implement a site health and safety plan that informs workers and
others on-site about first aid techniques and what to do in case of an emergency and that
includes important telephone numbers and the locations of on-site fire extinguishers and
nearby hospitals. The certificate holder shall ensure that construction contractors have
personnel on-site who are trained and equipped for tower rescue and who are first aid and
CPR certified. [Site Certificate Condition 8.2]

V.C.2.5 During operation, the certificate holder shall develop and implement a site health and safety
plan that informs employees and others on-site about first aid techniques and what to do in
case of an emergency and that includes important telephone numbers and the locations of
on-site fire extinguishers and nearby hospitals. The certificate holder shall ensure that
operations personnel are trained and equipped for tower rescue. The facility must maintain
training records and have a current copy of the site health and safety plan on-site and
available upon request by the Department of Energy. [Site Certificate Condition 8.3]

383 Final ASC, Section U.4.7, p. 20
384 Final ASC, Section U.4.7, p. 20
V.C.2.6 During construction and operation of the facility, the certificate holder shall develop and implement fire safety plans in consultation with the Columbia Rural Fire District to minimize the risk of fire and to respond appropriately to any fires that occur on the facility site. In developing the fire safety plans, the certificate holder shall take into account the dry nature of the region and shall address risks on a seasonal basis. The certificate holder shall meet annually with local fire protection agency personnel to discuss emergency planning and shall invite local fire protection agency personnel to observe any emergency drill or tower rescue training conducted at the facility. [Site Certificate Condition 8.4]

V.C.2.7 Upon the beginning of operation of the facility, the certificate holder shall provide a site plan to the Columbia Rural Fire District. The certificate holder shall indicate on the site plan the identification number assigned to each turbine and the actual location of all facility structures. The certificate holder shall provide an updated site plan if additional turbines or other structures are later added to the facility. During operation, the certificate holder shall ensure that appropriate fire protection agency personnel have an up-to-date list of the names and telephone numbers of facility personnel available to respond on a 24-hour basis in case of an emergency on the facility site. [Site Certificate Condition 8.5]

V.C.2.8 The certificate holder shall construct turbines and pad-mounted transformers on concrete foundations and shall cover the ground within a 15-foot radius with non-flammable material. The certificate holder shall maintain the non-flammable pad area covering during operation of the facility. [Site Certificate Condition 8.6]

V.C.2.9 During construction and operation of the facility, the certificate holder shall ensure that the O&M building and all service vehicles are equipped with shovels and portable fire extinguishers of a 4A50BC or equivalent rating. [Site Certificate Condition 8.7]

V.C.2.10 During construction, the certificate holder shall ensure that construction vehicles and equipment are operated on graveled areas to the extent possible and that open flames, such as cutting torches, are kept away from dry grass areas. [Site Certificate Condition 8.8]

V.C.2.11 During operation, the certificate holder shall ensure that all on-site employees receive annual fire prevention and response training by qualified instructors or members of the local fire districts. The certificate holder shall ensure that all employees are instructed to keep vehicles on roads and off dry grassland, except when off-road operation is required for emergency purposes. [Site Certificate Condition 8.9]

V.C.2.12 Before beginning construction of any new State Highway approaches or utility crossings, the certificate holder shall obtain all required permits from the Oregon Department of Transportation (ODOT) subject to the applicable conditions required by OAR Chapter 734, Divisions 51 and 55. The certificate holder shall submit the necessary application or applications in a form satisfactory to ODOT and the Department for the location, construction and maintenance of approaches to State Highway 197 for access to the site. The certificate holder shall submit the necessary application or applications in a form satisfactory to ODOT and the Department for the location, construction and maintenance of collector cables or transmission lines crossing Highway 197. [Site Certificate Condition 5.9]

V.C.2.13 The certificate holder shall design and construct new access roads and private road improvements to standards approved by the Wasco County Road Department. Where modifications of County roads are necessary, the certificate holder shall construct the modifications entirely within the County road rights-of-way and in conformance with County road design standards subject to the approval of the Wasco County Road Department. Where modifications of State roads or highways are necessary, the certificate holder shall construct the modifications entirely within the public road rights-of-way and in
conformance with ODOT standards subject to the approval of ODOT. [Site Certificate Condition 6.17]

V.C.2.14 The certificate holder shall cooperate with the Wasco County Public Works Department to ensure that any unusual damage or wear to county roads that is caused by construction of the facility is repaired by the certificate holder. Upon completion of construction, the certificate holder shall restore public roads to pre-construction condition or better to the satisfaction of the applicable county departments. [Site Certificate Condition 6.18]

V.C.2.15 During construction of the facility, the certificate holder shall implement measures to reduce traffic impacts, including:

(a) Providing notice to adjacent landowners when heavy construction traffic is anticipated.

(b) Providing appropriate traffic safety signage and warnings.

(c) Requiring flaggers to be at appropriate locations at appropriate times during construction to direct traffic to reduce accident risks.

(d) Using traffic diversion equipment (such as advance signage and pilot cars) when slow or oversize construction loads are anticipated.

(e) Maintaining at least one travel lane at all times to the extent reasonably possible so that roads will not be closed to traffic because of construction vehicles.

(f) Encouraging carpooling for the construction workforce.

(g) Including traffic control procedures in contract specifications for construction of the facility.

(h) Keeping Highway 197 free of gravel that tracks out onto the highway at facility access points.

[Site Certificate Condition 6.19]

V.C.2.16 The certificate holder shall ensure that no equipment or machinery is parked or stored on any County road whether inside or outside the site boundary. The certificate holder may temporarily park equipment off the road but within County rights-of-way with the approval of the County Roadmaster. [Site Certificate Condition 6.20]
V.D. WASTE MINIMIZATION [OAR 345-022-0120]

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

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

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

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

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V.D.1 WASTE MINIMIZATION: FINDINGS OF FACT

The applicant provided information about waste minimization in Exhibits G and V of the site certificate application. Exhibit V includes the applicant’s plans for solid waste and wastewater management during construction and operation of the proposed facility. Exhibit G includes additional information about management of potentially hazardous materials.

The accumulation, storage, disposal and transportation of waste generated by construction and operation of the proposed facility are not likely to have an adverse impact on surrounding and adjacent areas for the reasons discussed below. Most waste will be removed from the site and reused, recycled, or disposed of at an appropriate facility. Water used on-site during construction for dust suppression and road compaction is expected to evaporate or infiltrate into the ground. Wastewater produced during operation will be discharged to an on-site septic system. Hazardous materials that could potentially be used on the project site during construction or operation include lubricating oils, antifreeze, cleaners, and pesticides.

V.D.1.a. Solid Waste

Solid waste generated during construction would consist primarily of concrete waste from concrete turbine transformer pads, transmission line support structures, O&M building and the proposed substation; wood waste from the O&M building and wood forms used for concrete pad construction; and scrap metal from construction of turbine towers, met towers and transmission line support structures. Other solid waste generated during construction could include erosion control materials (straw mulch, straw wattles and silt fencing) and packaging materials for associated turbine parts and other electrical equipment. The applicant proposes to minimize the generation of waste from construction through detailed estimating of materials needs and through efficient construction practices.

Solid waste generated during construction will go through the following procedures in order to minimize waste: sorted and stored in dumpsters, transported to the regional landfill, and sorted and recycled, as appropriate, by the regional landfill. All concrete waste will either be reused on-

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383 Final ASC, Section V.2, p. 1
386 Final ASC, Section V.3, p. 2
site as fill or transported to the regional landfill for disposal. Pursuant to OAR 340-093-0030, such concrete waste is considered "clean fill" which does not require a permit from the DEQ for on-site disposal. All packaging wastes will be sorted and recycled and transported to the regional landfill. All non-recyclable materials will be collected in dumpsters and transported to the regional landfill for disposal.\textsuperscript{387} The Council includes Condition V.D.2.1, which requires the applicant to implement a solid waste management plan during construction.

Little solid waste would be generated from facility operations. Office waste, such as paper and food packaging and scrap, would be generated at the O&M building. In addition, repair or replacement of electrical or turbine equipment could generate incidental solid waste materials. Waste from the O&M buildings and other solid waste generated on site would be collected and recycled or transported to the regional landfill, as applicable.\textsuperscript{388} The Council includes Condition V.D.2.2, which requires the applicant to implement a solid waste management plan during operation.

V.D.1.b. Wastewater

During construction, water loss would occur primarily through evaporation from wetted road surfaces and from drying concrete.\textsuperscript{389}

Concrete delivery trucks would be rinsed at a local batch plant.\textsuperscript{390} During construction of the facility, the certificate holder would be subject to the NPDES 1200-C permit and its associated Erosion and Sediment Control Plan (ESCP). An ESCP describes best management practices for erosion and sediment control, spill prevention and response procedures, regular maintenance for vehicles and equipment, employee training on spill prevention and proper disposal procedures.

Portable toilets will be provided for onsite sewage handling during construction. The toilets would be pumped and cleaned regularly by the construction contractor. No other sewage would be generated during construction.\textsuperscript{391} The Council includes Condition V.C.2.1, which would require that a licensed contractor pump and clean portable toilets and dispose of the wastewater off-site.

The applicant proposes to construct an on-site septic system to serve the sanitary uses at the proposed O&M building during operation. The design capacity of the proposed new septic system would be less than 5,000 gallons per day.\textsuperscript{392} The Council includes Condition V.C.2.2, which would require the certificate holder to discharge sanitary wastewater generated at the O&M facilities to a licensed on-site septic system in compliance with State permit requirements.

No industrial wastewater would be generated during operation. If blade-washing becomes necessary, the limited quantity of water used would evaporate or infiltrate into the ground near the point of use (Condition V.I.C.2.2). Water would not be discharged into wetlands, streams or other waterways.

V.D.1.c. Hazardous Materials

\textsuperscript{387} Final ASC, Section V.3, p. 2
\textsuperscript{388} Final ASC, Section V.3, pp. 2-3
\textsuperscript{389} Final ASC, Section O.4, p. 1
\textsuperscript{390} Final ASC, Section V.2, p. 1
\textsuperscript{391} Final ASC, Section V.2, p. 1
\textsuperscript{392} Final ASC, Section V.2, p. 1
Hazardous materials that might be used on-site during construction and operation include lubricating oils, antifreeze, cleaners and pesticides. Each turbine will contain lubricating oil and hydraulic oil, depending on the turbine type selected, the amount of oils in each turbine ranges from 83.2 to 395 gallons. Turbines contain 7.5 to 9.25 gallons of ethylene glycol (antifreeze), depending on the type of turbine selected for the facility.

Hazardous materials will be stored indoors at the proposed O&M facility to prevent any contamination from leaks or spills. All hazardous materials required for the construction and operation of the facility will be used and stored per an internal hazardous materials program that contains guidelines in accordance with US Environmental Protection Agency and Occupational Safety and Health Administration regulations. In addition, the applicant states that all hazardous materials stored and used on-site will be catalogued and materials safety data sheets for each material will be filed and available to employees.

In addition, all employees are proposed to be trained and receive guidelines on the handling of hazardous materials and how to properly store, transport, and dispose of hazardous materials. In the event of a hazardous material spill, hazardous material containment and cleanup kits would be available on site to minimize the impact resulting from a spill. These hazardous material containment and cleanup kits would be maintained by the applicant or its designated contractor at all times. The Council includes Condition IV.C.2.4, which addresses proper handling of hazardous materials, and Condition IV.C.2.5, which addresses preparation for, and response to, spills and accidental releases of hazardous materials.

V.D.2 WASTE MINIMIZATION: SITE CERTIFICATE CONDITIONS

Based on its review of the information in Exhibit G and V of the ASC, the foregoing findings and other evidence in the record, and in accordance with ORS 469.501(4) and OAR 345-022-0110 (2), the Council includes the following site certificate conditions to address the facility’s potential impacts related to the Waste Minimization Standard:

V.D.2.1 The certificate holder shall implement a waste management plan during construction that includes but is not limited to the following measures:

(a) Recycling steel and other metal scrap.

(b) Recycling wood waste.

(c) Recycling packaging wastes such as paper and cardboard.

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

(e) Segregating all hazardous wastes such as used oil, oily rags and oil-absorbent materials, 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 wastes.

(f) Confining concrete delivery truck rinse-out to a designated wash-out area and burying other concrete waste as part of backfilling.

[Site Certificate Condition 6.3]

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393 Final ASC, Section G.2, p. 1  
394 Final ASC, Table G-1  
395 Final ASC, Section G.3, p. 2  
396 Final ASC, Section G.3, p. 2
V.D.2.2 The certificate holder shall implement a waste management plan during operation that includes but is not limited to the following measures:

(a) Training employees to minimize and recycle solid waste.

(b) Recycling paper products, metals, glass and plastics.

(c) Recycling used oil and hydraulic fluid.

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

(e) Segregating all hazardous, non-recyclable wastes such as used oil, oily rags and oil-absorbent materials, 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 wastes.

[Site Certificate Condition 10.11]
VI. OTHER APPLICABLE REGULATORY REQUIREMENTS UNDER COUNCIL JURISDICTION

Under ORS 469.503(3) and under the Council's General Standard of Review (OAR 345-022-0000), the Council must determine whether the proposed facility complies with "all other Oregon statutes and administrative rules identified in the Project Order, as amended, as applicable to the issuance of a site certificate for the proposed facility." This section addresses the applicable Oregon statutes and administrative rules that are not otherwise addressed in Sections IV and V of this Order. They include the noise control regulations of the Department of Environmental Quality (Section VLA), the Department of State Lands' regulations for removal or fill of material affecting waters of the state (Section VI.B), the Water Resources Department's regulations for appropriating ground water (VI.C) and the Council's statutory authority to consider protection of public health and safety (VI.D).

VI.A. NOISE CONTROL REGULATIONS [OAR 340-035-0035]

(1) Standards and Regulations:

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(b) New Noise Sources:

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(B) New Sources Located on Previously Unused Site:

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

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

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

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with windspeed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

(III) The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or
covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

(IV) For purposes of determining whether a proposed wind energy facility would satisfy the ambient noise standard where a landowner has not waived the standard, noise levels at the appropriate measurement point are predicted assuming that all of the proposed wind facility’s turbines are operating between cut-in speed and the wind speed corresponding to the maximum sound power level established by IEC 61400-11 (version 2002-12). These predictions must be compared to the highest of either the assumed ambient noise level of 26 dBA or to the actual ambient background L10 and L50 noise level, if measured. The facility complies with the noise ambient background standard if this comparison shows that the increase in noise is not more than 10 dBA over this entire range of wind speeds.

(V) For purposes of determining whether an operating wind energy facility complies with the ambient noise standard where a landowner has not waived the standard, noise levels at the appropriate measurement point are measured when the facility’s nearest wind turbine is operating over the entire range of wind speeds between cut-in speed and the windspeed corresponding to the maximum sound power level and no turbine that could contribute to the noise level is disabled. The facility complies with the noise ambient background standard if the increase in noise over either the assumed ambient noise level of 26 dBA or to the actual ambient background L10 and L50 noise level, if measured, is not more than 10 dBA over this entire range of wind speeds.

(VI) For purposes of determining whether a proposed wind energy facility would satisfy the Table 8 standards, noise levels at the appropriate measurement point are predicted by using the turbine’s maximum sound power level following procedures established by IEC 61400-11 (version 2002-12), and assuming that all of the proposed wind facility’s turbines are operating at the maximum sound power level.

(VII) For purposes of determining whether an operating wind energy facility satisfies the Table 8 standards, noise generated by the energy facility is measured at the appropriate measurement point when the facility’s nearest wind turbine is operating at the windspeed corresponding to the maximum sound power level and no turbine that could contribute to the noise level is disabled.

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VI.A.1 NOISE CONTROL REGULATIONS: FINDINGS OF FACT

The applicant addressed compliance with the DEQ noise regulations in Exhibit X of the ASC.

The proposed facility will be a “new industrial or commercial noise source” under OAR 340-035-0035. The applicant has assumed that the proposed Summit Ridge site is a “previously unused” site. Therefore, the noise generated by the proposed Summit Ridge facility must comply with OAR 340-035-0035(1)(b)(B).

Under OAR 340-035-0035(1)(b)(B), the noise generated by a new wind energy facility located on a previously unused site must comply with two tests: the “ambient degradation test” and the “maximum allowable test.” Facility-generated noise must not increase the ambient hourly L10 or L50 noise levels at any noise sensitive receiver by more than 10 decibels (on the A-weighted scale) (dBA) when turbines are operating “between cut-in speed and the wind speed corresponding to the maximum sound power level.”

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397 OAR 340-035-0015(33) defines “new industrial or commercial noise source.”
398 OAR 340-035-0015(47) defines “previously unused industrial or commercial site.”
399 Final ASC, Section X.1.2, p. 1
This requirement is the “ambient degradation” test. To show that a proposed facility complies with this test, the applicant may use an assumed ambient hourly $L_{50}$ noise level of 26 dBA; otherwise, the applicant must measure the actual ambient hourly noise levels at the receiver in accordance with the procedures specified in the regulation.

OAR 340-035-0035(1)(b)(b)(iii)(III) relieves the applicant from having to show compliance with the ambient degradation test “if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located” (a “noise waiver”).

The potential “waiver” of the ambient degradation standard does not relieve the wind facility operator from compliance with the second test imposed under OAR 340-035-0035(1)(b)(B). Facility-generated noise must not exceed the noise limits specified in Table 8 of the regulation. This is known as the “Table 8” or “maximum allowable” test. Table 8 of the regulation provides the following limits:

<table>
<thead>
<tr>
<th>Statistical Noise Limits for Industrial and Commercial Noise Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statistical Descriptor</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>$L_{50}$</td>
</tr>
<tr>
<td>$L_{10}$</td>
</tr>
<tr>
<td>$L_{1}$</td>
</tr>
</tbody>
</table>

The hourly $L_{50}$, $L_{10}$ and $L_{1}$ noise levels are defined as the noise levels equaled or exceeded 50 percent, 10 percent and 1 percent of the hour, respectively.

Because the proposed energy facility is proposed to operate on a 24-hour basis, the noise generated by the facility must not exceed the maximum allowable nighttime noise limits (10:00 PM to 7:00 AM). To comply with the “maximum allowable” test, the noise radiating from the proposed Summit Ridge facility must not exceed an hourly $L_{50}$ noise level of 50 dBA at any noise sensitive receiver. For the purpose of assessing whether the proposed wind facility would comply with this test, noise levels must be predicted “assuming that all of the proposed wind facility’s turbines are operating at the maximum sound power level.”

OAR 340-035-0035(5)(g) specifically exempts noise caused by construction activities.

Construction of the proposed Summit Ridge facility would produce localized, short duration noise levels similar to those produced by any large construction project with heavy construction equipment. Much of

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400 In this discussion, “dBA” refers to sound levels in decibels as measured on a sound level meter using the A-weighted filter network, which corresponds closely to the frequency response of the human ear. The regulation applies the test “as measured at an appropriate measurement point.” The “appropriate measurement point,” as defined by OAR 340-035-0015(3), is “25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source” or “that point on the noise sensitive property line nearest the noise source,” whichever is farther from the source. OAR 340-035-0015(38) defines “noise sensitive property” as “real property normally used for sleeping, or normally used as schools, churches, hospitals, or public libraries.” Private residences are the only “noise sensitive properties” potentially affected by the proposed Summit Ridge Wind Project. We refer to these as the “noise sensitive receivers.”
the construction will be far from any noise sensitive receivers. Nevertheless, to mitigate noise impacts at
local residences, the Council includes Condition VI.A.2.1, which requires the certificate holder to confine
the noisiest construction activities to daylight hours and to establish a complaint response system to
address noise complaints during construction.

The applicant has elected to use the assumed ambient hourly $L_{10}$ noise level of 26 dBA for the
background ambient noise level rather than to conduct noise measurements at the noise sensitive receivers
in the vicinity of the project. Accordingly, to show compliance with the ambient degradation test, the
noise generated by the operation of the proposed Summit Ridge wind turbines between cut-in wind speed
and maximum sound power level wind speed must not cause the hourly $L_{10}$ noise level at any noise
sensitive receiver to exceed 36 dBA.

The applicant is proposing a wind energy facility that would contain between 66 and 87 wind
turbines. To represent the range of turbine types that may be used at the proposed facility, the applicant
provided total and octave band sound power level data for a 1.8 MW and a 2.3 MW turbine type. The
applicant requests the design flexibility to locate the turbines anywhere within the proposed site
boundary, subject to the conditions of the site certificate. Because the final design configuration is not yet
known, the applicant’s analysis of noise impacts is based on computer modeling of the preliminary
facility design.

The applicant submitted two turbine layouts under consideration within the site boundary; one
that included 66 2.3-MW turbines and one that included 87 1.8-MW turbines. The applicant retained
acoustical consultant Mark Bastasch, P.E., of CH2M HILL, to calculate the sound pressure level expected
at each noise sensitive receiver within proximity of the site boundary. The Department consulted with
Kerrie G. Standley, P.E., of Daly Standley & Associates, Inc. to review and confirm Mr. Bastasch’s
findings.

The applicant’s noise analysis used the CADNA/A Version 3.72, 2009 program supplied by
Datakustik, GmbH of Munich, Germany to make the predictions of noise levels at noise sensitive
receivers. The program includes sound propagation factors adopted from ISO 9613 (ISO, 1993) and VDI
2714 (VDI, 1988) to account for distance attenuation, atmospheric attenuation, ground attenuation and
terrain attenuation. In predicting the maximum noise levels at the noise sensitive receivers, the analysis
included distance attenuation and atmospheric attenuation associated with conditions of 50 degrees
Fahrenheit (10 degrees Celsius) and 70 percent relative humidity. The analysis used ground attenuation
associated with the Simple Ground attenuation procedure included in ISO 9613-2 and considered by the
Department to be appropriate for wind turbine noise predictions. Barrier attenuation provided by the
topography at the site was included in the predictions where appropriate.

Octave band sound power level reference data supplied by the turbine manufacturers were used in
predicting the maximum noise levels at the noise sensitive receivers. The analysis increased the sound
power levels by 2 dB to account for the uncertainty associated with the data provided by the manufacturer
for the 1.8-MW turbines. The analysis used the stated “warranted” sound power level data supplied by
the manufacturer for the 2.3-MW turbines. For the noise analysis the applicant assumed that the 1.8-MW
turbines would have a maximum overall A-weighted sound power level output of 108.5 dBA and that the
2.3-MW turbines would have a maximum A-weighted sound power level output of 107 dBA.

In addition to calculating the noise generated by the wind turbines, the applicant calculated and
included the noise that would radiate to each receiver from the power transformers located at a single
proposed substation. The applicant used a maximum A-weighted sound power level of 106 dBA as the
total sound power level that could radiate from transformers located at the substation.

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*Final ASC, Table X-4. The underlying sound data is considered a manufacturer’s trade secret and was
submitted to the Department confidentially under separate cover.*

*Final ASC, Figures X-1 and X-2*
The application includes a table showing the results of the noise analysis for the two proposed turbine layouts.\textsuperscript{403} Table X-5 of Exhibit X shows predicted noise levels at 12 noise sensitive receivers with both the proposed 1.8-MW turbine layout and the proposed 2.3-MW turbine layout. As a visual aid, the applicant also provided figures that show the 36-dBA and 50-dBA noise contours around the proposed wind energy facility.\textsuperscript{404}

Based on the applicant’s data, the maximum predicted noise levels generated by the Summit Ridge facility are as shown in the table below. The data are presented in two columns, representing the two turbine layouts that were analyzed. Data shown in \textbf{boldface} indicates an exceedance of the 36-dBA ambient degradation limit. Receiver identification numbers match those shown on Figures X-1 and X-1 in Exhibit X of the application.

<table>
<thead>
<tr>
<th>Receiver</th>
<th>2.3-MW Turbine Layout Predicted Maximum Hourly $L_{50}$ Noise Level (dBA)</th>
<th>1.8-MW Turbine Layout Predicted Maximum Hourly $L_{50}$ Noise Level (dBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R01</td>
<td>39</td>
<td>40</td>
</tr>
<tr>
<td>R02</td>
<td>43</td>
<td>43</td>
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<tr>
<td>R03</td>
<td>33</td>
<td>34</td>
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<tr>
<td>R04</td>
<td>49</td>
<td>49</td>
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<tr>
<td>R05</td>
<td>49</td>
<td>50</td>
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<tr>
<td>R06</td>
<td>44</td>
<td>45</td>
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<td>R07</td>
<td>48</td>
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<td>R08</td>
<td>47</td>
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<td>R09</td>
<td>43</td>
<td>43</td>
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<tr>
<td>R10</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>R11</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>R12</td>
<td>44</td>
<td>44</td>
</tr>
</tbody>
</table>

For both proposed layouts, the predicted noise levels comply with the 50-dBA maximum allowable test at all noise sensitive receivers. For the 2.3-MW turbine layout, the predicted noise levels at 11 of the 12 receivers exceed the 36-dBA ambient degradation limit; that is, operation of the facility could increase the ambient statistical noise level by more than 10 dBA above the assumed background $L_{50}$ ambient noise level of 26 dBA. For the 1.8-MW turbine layout, the predicted noise levels at 11 of the 12 receivers also exceed the 36-dBA ambient degradation limit. The facility would not comply with the ambient degradation test under either proposed layouts, unless the certificate holder obtained noise easements from the owners of those properties where the predicted noise levels exceed the 36-dBA ambient degradation limit.\textsuperscript{405} Otherwise, the certificate holder would have to change the layout or reduce

\textsuperscript{403} Final ASC, Table X-5
\textsuperscript{404} Figure X-1 shows the noise contours around the proposed 2.3-MW turbine layout, and Figure X-2 shows the noise contours around the proposed 1.8-MW turbine layout (Final ASC, Figures X-1 and X-2).
\textsuperscript{405} The certificate holder would have the option to conduct measurements to determine the actual ambient $L_{10}$ and $L_{50}$ background noise levels rather than using an assumed background $L_{10}$ and $L_{50}$ ambient noise level of 26 dBA. If the predicted noise generated by the facility would not increase the actual ambient background noise levels at a noise sensitive receiver by more than 10 dBA, the certificate holder would not need a waiver would for that receiver.
the number of turbines to bring the predicted noise levels down to levels that would not exceed the ambient degradation limit.

To ensure that the final design of the facility demonstrates the ability to comply with the noise control regulations, the Council includes Condition VI.A.2.2, which requires the certificate holder to provide a revised noise analysis to the Department before beginning construction. The condition requires the certificate holder to demonstrate to the satisfaction of the Department that the final design layout of the facility using the selected turbine sizes would comply with the applicable noise control regulations. In the event that the applicant is unable to demonstrate compliance with the ambient noise degradation limit, the certificate holder is required to provide the Department evidence that the certificate holder has obtained a noise waiver from each noise sensitive property.

Under Condition III.D.4 (discussed in Section III.D, General Conclusion and Findings Related to the Facility), the certificate holder is required to operate the facility in accordance with all applicable state laws and administrative rules, inclusive of the requirements of OAR 340-035-0035. Under OAR 340-035-0035(4)(a), DEQ has authority to require the owner of an operating noise source to monitor and record the statistical noise levels upon written notification. In the event of a complaint regarding noise levels during operation of Summit Ridge, the Council has the authority to act in the place of DEQ to enforce this provision to verify that the certificate holder is operating the facility in compliance with the noise control regulations. However, the Council includes specific site certificate conditions to address Noise Control Regulations, including Condition VI.A.2.3, requiring the certificate holder to maintain a noise complaint response system and promptly notify the Department of any complaints, and Condition VI.A.2.4, which expressly allows the Council to require the certificate holder to conduct noise monitoring during operation of the facility to verify compliance with the noise regulations.

**VI.A.2 NOISE CONTROL REGULATIONS: SITE CERTIFICATE CONDITIONS**

Based on the review of the information provided in Exhibit X of the ASC and other evidence in the record, and to ensure compliance with the requirements of OAR 340-035-0035, the Council includes the following conditions in the site certificate:

**VI.A.2.1** To reduce construction noise impacts at nearby residences, the certificate holder shall:

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

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

(c) Establish a complaint response system at the construction manager’s office to address noise complaints. Records of noise complaints during construction must be made available to authorized representatives of the Department of Energy upon request.

[Site Certificate Condition 12.1]

**VI.A.2.2** No more than 30 days prior to construction, the certificate holder shall provide to the Department:

(a) Information that identifies the final design locations of all turbines to be built at the facility;

(b) The maximum sound power level for the substation transformers and the maximum sound power level and octave band data for the turbine type(s) 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

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406 Condition III.D.4 is a mandatory condition that is required under OAR 345-027-0020(3).
analysis must demonstrate to the satisfaction of the Department that the total noise
generated by the facility (including the noise from turbines and substation transformers)
will not exceed the maximum allowable noise level at any potentially-affected noise
receptor. The analysis must also demonstrate that the facility would meet the ambient
degradation test at the appropriate measurement point for potentially-affected noise
sensitive properties, or that the certificate holder has obtained the noise waiver described
in Condition VI.A.2.2(d) for each noise-sensitive property where the ambient
degradation standard cannot be met.

(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 a legally effective easement or real covenant pursuant to which the owner of
the property authorizes the certificate holder’s operation of the facility to increase
ambient statistical noise levels \(L_{10}\) and \(L_{50}\) by more than 10 dBA at the appropriate
measurement point. The legally-effective easement or real covenant must meet all of
the following criteria:

(a) Include a legal description of the burdened property (the noise sensitive
property);
(b) Be recorded in the real property records of the county;
(c) Expressly benefit the certificate holder;
(d) Expressly run with the land and bind all future owners, lessees or holders of any
interest in the burdened property; and
(e) Not be subject to revocation without the certificate holder’s written approval.

[Site Certificate Condition 12.2]

VI.A.2.3 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 complaint about noise from the facility. The notification should include, but is
not limited to, the date the complaint was received, 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.

[Site Certificate Condition 12.3]

VI.A.2.4 Upon written notification from the Department, the certificate holder will monitor and record
the actual statistical noise levels during operations to verify that the certificate holder is
operating the facility 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, will be borne by the certificate holder.

[Site Certificate Condition 12.4]

VI.A.3 Noise Control Regulations: Conclusions of Law

Based on the foregoing findings and subject to compliance with the site certificate conditions,
the Council finds that the proposed facility complies with the Noise Control Regulations in
OAR 340-035-0035(1)(b)(B).
VI.B. REMOVAL-FILL LAW

The Oregon Removal-Fill Law (ORS 196.795 through 196.990) and regulations (OAR 141-085-0500 through 141-085-0785) adopted by DSL require a permit if 50 cubic yards or more of material is removed, filled or altered within any "waters of the state" at the proposed site. The Council must determine whether a permit is needed and should be issued. The U.S. Army Corps of Engineers administers Section 404 of the Clean Water Act, which regulates the discharge of fill into waters of the United States (including wetlands), and Section 10 of the Rivers and Harbors Appropriation Act of 1899, which regulates placement of fill in navigable waters. Federal law may require a nationwide or individual fill permit for the proposed facility if waters of the United States are affected. A single application form (a Joint Permit Application Form) is used to apply for both the state and federal permits.

VI.B.1 REMOVAL-FILL LAW: FINDINGS OF FACT

VI.B.1.a. Delineation of Waters of the State

The applicant provided information about wetlands and other waters of the state in Exhibit J of the application. The analysis area for Exhibit J is the area within the site boundary. The applicant’s consultant, David Evans and Associates, Inc. (DEA) conducted field investigations to identify wetlands and waters of the state within the analysis area using the Level 2 Routine Delineation Method described in the US Army Corps of Engineers (USACE) Wetlands Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE, Environmental Laboratory 2008). Before conducting the field investigation, DEA reviewed available literature on the area, including U.S. Geological Survey topographic maps, National Wetlands Inventory digital data (USFWS, 2008), and aerial photographs.

The wetland and waters study areas included the 1,300 foot turbine micrositing corridors, transmission line corridors, and subsation, laydown and O&M facility locations. Field investigations were conducted on June 2, July 29, July 30, August 7, and November 18, 2009. Field investigation included all potential waters and wetlands identified in the literature review.

DEA delineated six wetlands within the study areas, two of which are isolated without connection to jurisdictional water features. The remaining four identified wetlands are associated with the drainage features of Dry Creek and Shotgun Hollow, which are tributaries to the Columbia River; these wetlands are likely jurisdictional. All five wetlands were determined to be potentially jurisdictional under State regulations. DEA also identified 11 waterways; four of these were identified as likely state and federally jurisdictional and one was identified as likely federally jurisdictional. DSL concurred with the wetland delineation study on April 5, 2010.

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407 ORS 196.800(14) defines "Waters of this state." The term includes wetlands and certain other water bodies.
408 Final ASC, Attachment J-1
409 Final ASC, Attachment J-1
410 Final ASC, Section J.1, p. 1
411 Final ASC, Attachment J-1
412 Final ASC, Section J.2, p. 1
413 Final ASC, Attachment J-2
414 Final ASC, Attachment J-1, Table 15. DEA’s preliminary determinations of federal jurisdiction are subject to confirmation by the USACE.
415 Department of State Lands Concurrence on Wetland Delineation Report, April 5, 2010 (SRW-0048a)
VI.B.1.b. Removal/Fill Permit

The applicant proposes to locate the components of the proposed Summit Ridge facility such that there will be no impacts to identified wetlands or waterways. The applicant provided a series of maps showing the locations of the identified wetlands and waterways with construction areas superimposed (Figure J-2) which show no impacts to any of the identified wetland or waterways. The majority of the wetlands and waterways lie along the proposed transmission line corridor; the transmission line towers are proposed to be located roughly 800 to 1,000 feet apart, which will enable the applicant to avoid wetland and waterways in tower placement. All new access roads are proposed to be constructed entirely in upland areas to avoid impacts to wetland or waterways, and transmission conductor is proposed to be installed using a helicopter, which will avoid ground impacts.416

Because the applicant proposes to avoid all impacts to identified wetlands and waterways, there will be no removal or fill requiring a Removal/Fill Permit. The Council finds that a Removal/Fill Permit would not be needed for the proposed Summit Ridge facility.

VI.B.2 REMOVAL-FILL LAW: SITE CERTIFICATE CONDITIONS

Based on the review of the information provided in Exhibit J and other evidence in the record, and to ensure compliance with the DSL Removal-Fill requirements, the Council includes the following condition in the site certificate:

VI.B.2.1 To protect wetlands and waterways, the certificate holder shall construct the proposed facility substantially as described in the this Order. Specifically, the certificate holder shall not remove material from waters of the State or add new fill material to waters of the State such that the total volume of removal and fill exceeds 50 cubic yards for the project as a whole. [Site Certificate Condition 6.9]

VI.B.3 REMOVAL-FILL LAW: CONCLUSIONS OF LAW

Based on the foregoing findings, and subject to compliance with the site certificate condition, the Council concludes that the proposed facility complies with the DSL removal-fill requirements, and does not require a Removal-Fill Permit.

416 Final ASC, Section J.3, pp. 2-3
VI.C. GROUND WATER ACT

Through the provisions of the Ground Water Act of 1955, ORS 537.505 to 537.796, and OAR Chapter 690, the Oregon Water Resources Commission administers the rights of appropriation and use of the ground water resources of the state. Under OAR 345-022-0000(1), the Council must determine whether the proposed Summit Ridge facility complies with these statutes and administrative rules.

VI.C.1 GROUND WATER ACT: FINDINGS OF FACT

The applicant provided information about anticipated water use for construction and operation of the proposed facility in Exhibit O of the application. During construction, water would be obtained from the City of The Dalles under an existing municipal water right.

Up to 15 million gallons would be needed for dust control, road and earthwork compaction and to prepare concrete during the construction of the Summit Ridge Wind Farm.\(^{417}\) In the application, the applicant included a copy of a letter from the City of The Dalles indicating that the City could supply the water needed during construction.\(^{418}\) The (OWRD) concurred that proposed use of water from the City of The Dalles "is allowed by a municipality and [OWRD] has no comment."\(^{419}\)

During construction, water would be trucked via tanker supplied to the applicant by the City of The Dalles.\(^{420}\) Water to be used for dust control would be contained in tanker trucks with the appropriate water-distribution attachments. When not in use, these trucks would be parked on-site (although not on County roads, per Condition V.C.2.16) until needed. Water to be used for preparing concrete would be stored in a 12,000 gallon storage tank that is a part of the proposed temporary self-contained portable concrete batch plant.\(^{421}\) At the completion of construction, the tanks would be removed from the site (see Condition IV.C.2.6).

During operation, water would be used for domestic and incidental purposes at the O&M building\(^{422}\) and for equipment washdown.\(^{423}\) The applicant estimated that operational water use would be less than 5,000 gallons per day.\(^{424}\) This water would come from a new on-site well (Condition VI.C.2.1). ORS 537.545(1)(f) provides that a new water right is not required for industrial and commercial uses of up to 5,000 gallons per day, although ORS 537.765 requires that a well log be submitted to the Water Resources Commission within 30 days after completion of construction of a water well.\(^{425}\)

The certificate holder may use water from the on-site well for washing facility equipment, such as turbine rotors, but the total water use from the wells would not exceed 5,000 gallons per day.\(^{426}\)

A DEQ WPCF 1700-B Wash Water Permit would not be needed for washing facility equipment, so long as there would be no runoff of wash water from the site or discharges to surface waters, storm

\(^{417}\) Final ASC, Section O.3, p. 1
\(^{418}\) Final ASC, Attachment O-1
\(^{419}\) SRW-0085
\(^{420}\) Final ASC, Section U.5.3, p. 24
\(^{421}\) Final ASC, Section O.3, p. 1
\(^{422}\) Final ASC, Section O.2, p. 1
\(^{423}\) Final ASC, Section V.4, p. 3
\(^{424}\) Final ASC, Section O.3, p. 1
\(^{425}\) ORS 537.545 requires the owner of land on which an exempt well is drilled to provide a map to WRD showing the exact location of the well and to file the exempt water use with WRD for recording with submittal of a fee. ORS 537.765 requires that a well log be submitted to the Water Resources Commission within 30 days after completion of construction of a water well.
\(^{426}\) Final ASC, Section V.4, p. 3
sewers or dry wells and provided that no acids, bases or metal brighteners would be used with the wash water.  

DEQ recommends cleaning only with cold water. Biodegradable, phosphate-free cleaners are allowed, but all chemicals, soaps or detergents should be used sparingly. The Council includes Condition VI.C.2.2, which allows equipment washing, subject to the restrictions recommended by DEQ.

VI.C.2 GROUND WATER ACT: SITE CERTIFICATE CONDITIONS

Based on the review of the information provided in Exhibit O and other evidence in the record, and to ensure compliance with the requirements of the Ground Water Act, the Council includes the following condition in the site certificate:

VI.C.2.1 During facility operation, the certificate holder shall obtain water for on-site uses from an on-site well located near the O&M building. The certificate holder shall construct the on-site well subject to compliance with the provisions of ORS 537.765 relating to keeping a well log. The certificate holder shall not use more than 5,000 gallons of water per day from the on-site well. The certificate holder may use other sources of water for on-site uses subject to prior approval by the Department. [Site Certificate Condition 10.9]

VI.C.2.2 During facility operation, if equipment washing becomes necessary, the certificate holder shall ensure that there is no runoff of wash water from the site or discharges to surface waters, storm sewers or dry wells. The certificate holder shall not use acids, bases or metal brighteners with the wash water. The certificate holder may use biodegradable, phosphate-free cleaners sparingly. [Site Certificate Condition 10.10]

VI.C.3 GROUND WATER ACT: CONCLUSIONS OF LAW

Based on the foregoing findings and subject to compliance with the site certificate conditions, the Council finds that the proposed use of ground water for the construction and operation of the proposed Summit Ridge Wind Farm complies with the Ground Water Act of 1955, ORS 537.505 to 537.796, and applicable requirements of OAR Chapter 690.

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VI.D. PUBLIC HEALTH AND SAFETY

Under ORS 469.310 the Council is charged with ensuring that the “siting, construction and operation of energy facilities shall be accomplished in a manner consistent with protection of the public health and safety.” State law further provides that “the site certificate shall contain conditions for the protection of the public health and safety.” ORS 469.401(2).

VI.D.1 PUBLIC HEALTH AND SAFETY: FINDINGS OF FACT

The Council’s Public Health and Safety Standards for Wind Energy Facilities (OAR 345-024-0010) are discussed in Section IV.K of this document. Section V.C of this document addresses the impacts of the proposed facility on the providers of public services to provide public services, including fire and police protection. This section discusses issues of magnetic fields and coordination with the Oregon Public Utility Commission (PUC).

VI.D.1.a. Magnetic Fields

The proposed Summit Ridge Wind Farm includes a 34.5 kV aboveground and underground power collection system, as well as an aboveground 230 kV transmission line. A single-circuit 230 kV line would run from the substation to the interconnection with the BPA transmission system. Most of the collector lines would be underground, but up to 10% of single-circuit segments could be installed aboveground (Condition VI.D.2.1). There are no occupied structures, or any structures meant for occupation, within 200 feet of the proposed 230 kV lines or the proposed aboveground collector lines.428

Electric transmission lines create both electric and magnetic fields. The electric fields associated with the proposed transmission lines are addressed above in Section IV.M, and for the reasons discussed there, the proposed 34.5 kV and 230 kV transmission lines would not exceed the Council’s electric field standard of 9-kV per meter at one meter above the ground surface in areas accessible to the public.

The strength of a magnetic field is a function of the current (amperage) in the electric transmission line: the higher the current, the greater the strength of the magnetic field. The magnetic field strength decreases as the distance from the conductor increases. The strength of a magnetic field fluctuates hourly and daily with changes in the amount of current in the transmission line. Magnetic field strength is measured in units of milligauss (mG).429

The application includes data on estimated magnetic field strength surrounding different transmission line configurations proposed for the Summit Ridge Wind Farm. The analysis assumed that all aboveground 34.5 kV transmission lines would have a minimum clearance of 20 feet from the ground.430 The analysis assumed that the aboveground 230 kV transmission line would have a minimum clearance of 25 feet from the ground.431 For double-circuit runs, the phasing of circuits can be arranged to reduce the magnetic field compared to a single-circuit run. The magnetic field strength is at its maximum directly below the transmission line, at approximately mid-span between pole structures, and field strength diminishes with distance from the centerline.

Based on the analysis provided by the applicant, the predicted maximum magnetic field strengths for the 230 kV line were 132 mG at centerline, then diminishing to 20 mG at 75 feet,

428 Final ASC, Section AA.2, p. 1
429 In some research reports, magnetic fields are measured in units of microtesla. One microtesla is equal to 10 mG.
430 Final ASC, Section AA.2, p. 5
431 Final ASC, Section AA.2, p. 4
which is the edge of the right of way. For the aboveground 34.5 kV lines, the predicted
maximum magnetic field strength is 79 mG at the centerline and drops off rapidly to either side.
The magnetic field strength of the underground 34.5 kV lines, at 1 meter above ground level, is
estimated to be 23 mG for a single circuit and 20 mG for six parallel circuits. 432

The Council has previously considered whether exposure to magnetic fields causes health
risks, and this issue has been the subject of considerable scientific research and discussion. 433
The Council has not found sufficient information upon which to set health-based limits for
exposure to magnetic fields. 434 Nevertheless, the Council has encouraged applicants to propose
and implement low-cost ways to reduce or manage public exposure to magnetic fields from
transmission lines under the Council's jurisdiction. The Council includes Condition V.I.D.2.2,
which addresses reasonable steps to reduce or manage human exposure to electric and magnetic
fields.

V.I.D.1.a.i. Coordination with the PUC and the Wasco Electric Cooperative

The PUC Safety and Reliability Section has requested that the Council ensure that certificate
holders coordinate with PUC staff on the design and specifications of electrical transmission
lines. Under ORS 757.035, the PUC administers power line safety rules contained in OAR
Chapter 860, Division 24. 435 The PUC has explained that others in the past have made
inadvertent, but costly, mistakes in the design and specifications of power lines and pipelines that
could have easily been corrected early if the developer had consulted with the PUC staff
responsible for the safety codes and standards.

Under the PUC rules, the certificate holder would be an “operator” of power lines and would
be subject to ongoing requirements for the operation, maintenance, emergency response and
alteration of the facility power lines. 436 The certificate holder would be required to coordinate the
design of electric transmission lines with the PUC (Condition V.I.D.2.3). Compliance with
ongoing requirements regarding power lines during facility operation would be required under
Conditions IV.M.1 and IV.M.2.

The proposed facility is located entirely within the service territory of the Wasco Electric
Cooperative (WEC). 437 The WEC has expressed concern in its comments on the ASC that the
proposed facility will “cross over WEC high voltage overhead power lines and underground
power lines and low voltage overhead and underground power lines.” WEC stated that it did not
oppose the project, but “demand[s] the reliability, integrity, and land rights of WEC are not
lowered by this large proposed project.” The Council includes Condition V.I.D.2.4, which
requires the applicant to consult closely with WEC to ensure the integrity and reliability of the
power grid in Wasco County.

V.I.D.2 Public Health and Safety: Site Certificate Conditions

432 Final ASC, Section AA.2, p. 2
433 A discussion of magnetic field effects is included in the Final Order on the Application for the Shepherds
Flat Wind Farm (July 25, 2008), pp. 139-141.
434 Goldar Associates conducted a review of the scientific literature concerning EMF (EMF Report) on behalf
of the Council and presented its findings to the Council in November, 2009. The literature reviewed
confirmed the Council’s earlier findings. The state of Florida has set a standard of 150 mG at the edge of
the right-of-way for 230 kV transmission lines (EMF Report, p. 18).
435 Comments from Jerry Murray of the Public Utility Commission (PUC) regarding the Montague Wind
Power Facility Application for Site Certificate, February 22, 2010 (SRW-0145)
436 Id
437 SRW-0089
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Based on the review of the information provided in Exhibit AA and other evidence in the record, and to ensure compliance with the Public Health and Safety requirements, the Council includes the following conditions in the site certificate:

VI.D.2.1 The certificate holder shall install the 34.5 kV collector system underground to the extent practical. The certificate holder shall install underground lines at a minimum depth of three feet. Based on geotechnical conditions or other engineering considerations, the certificate holder may install segments of the collector system aboveground, but the total length of aboveground segments must not exceed five miles. [Site Certificate Condition 6.4]

VI.D.2.2 The certificate holder shall take reasonable steps to reduce or manage human exposure to electromagnetic fields, including but not limited to:
(a) Constructing all aboveground transmission lines at least 200 feet from any residence or other occupied structure, measured from the centerline of the transmission line.
(b) Constructing all aboveground 34.5 kV transmission lines with a minimum clearance of 20 feet from the ground.
(c) Constructing all aboveground 230 kV transmission lines with a minimum clearance of 25 feet from the ground.
(d) Providing to landowners a map of underground and overhead transmission lines on their property and advising landowners of possible health risks from electric and magnetic fields.
(e) 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.
(f) Designing and maintaining all transmission lines so that induced voltages during operation are as low as reasonably achievable. [Site Certificate Condition 7.9]

VI.D.2.3 In advance of, and during, preparation of detailed design drawings and specifications for the 230 kV and 34.5 kV transmission lines, the certificate holder shall consult with the Utility Safety and Reliability Section of the Oregon Public Utility Commission to ensure that the designs and specifications are consistent with applicable codes and standards. [Site Certificate Condition 6.5]

VI.D.2.4 The certificate holder shall consult with the Wasco Electric Cooperative during the design, construction, and operation of the Summit Ridge Wind Farm to ensure that the integrity and reliability of the power grid in Wasco County is maintained. [Site Certificate Condition 6.7]

VI.D.3 PUBLIC HEALTH AND SAFETY: CONCLUSIONS OF LAW

Based on the foregoing findings and subject to compliance with the site certificate conditions, the Council concludes that the siting, construction, and operation of the proposed Summit Ridge Wind Farm are consistent with protection of public health and safety.
VII. CONDITIONS REQUIRED BY COUNCIL RULES

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

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

The Council includes the site certificate conditions listed below that are required by Council rules, but are not otherwise discussed or listed in this Order. Those conditions in the cited rule that do not apply to the facility, such as conditions specific to a thermal power plant, are not included in this Order:

VII.1 The Council shall not change the conditions of the site certificate except as provided for in OAR Chapter 345, Division 27.

[Site Certificate Condition 2.13] [Mandatory Condition OAR 345-027-0020(1)]

VII.2 The following general monitoring conditions apply:

(a) The certificate holder shall consult with affected state agencies, local governments and tribes and shall develop specific monitoring programs for impacts to resources protected by the standards of Divisions 22 and 24 of OAR Chapter 345 and resources addressed by applicable statutes, administrative rules and local ordinances. The certificate holder must submit the monitoring programs to the Department of Energy and receive Department approval before beginning construction or, as appropriate, operation of the facility.

(b) The certificate holder shall implement the approved monitoring programs described in OAR 345-027-0028(1) and monitoring programs required by permitting agencies and local governments.

(c) For each monitoring program described in OAR 345-027-0028(1) and (2), the certificate holder shall have quality assurance measures approved by the Department before beginning construction or, as appropriate, before beginning commercial operation.

(d) 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.

[Site Certificate Condition 13.3] [Mandatory Condition OAR 345-027-0028]

VII.3 Following receipt of the site certificate or an amended site certificate, the certificate holder shall implement a plan that verifies compliance with all site certificate terms and conditions and applicable statutes and rules. As a part of the compliance plan, to verify compliance with the requirement to begin construction by the date specified in the site certificate, the certificate holder shall report promptly to the Department of Energy when construction begins. Construction is defined in OAR 345-001-0010. In reporting the beginning of construction, the certificate holder shall describe all work on the site performed before beginning construction, including work performed before the Council issued the site certificate, and shall state the cost of that work. For the purpose of this condition, "work on the site" means any work within a site or corridor, other than surveying, exploration or other activities to define or characterize the site or corridor.
The certificate holder shall document the compliance plan and maintain it for inspection by the Department or the Council.

[Site Certificate Condition 14.7] [Mandatory Condition OAR 345-026-0048]

VII.4 The certificate holder shall report according to the following requirements:

a. General reporting obligation for energy facilities under construction or operating:
   i. Within six months after beginning construction, and every six months thereafter during construction of the energy facility and related or supporting facilities, the certificate holder shall submit a semiannual construction progress report to the Department of Energy. In each construction progress report, the certificate holder shall describe any significant changes to major milestones for construction. The certificate holder shall include such information related to construction as specified in the site certificate. When the reporting date coincides, the certificate holder may include the construction progress report within the annual report described in OAR 345-026-0080.
   ii. By April 30 of each year after beginning construction, the certificate holder shall submit an annual report to the Department addressing the subjects listed in OAR 345-026-0080. The Council Secretary and the certificate holder may, by mutual agreement, change the reporting date.
   iii. To the extent that information required by OAR 345-026-0080 is contained in reports the certificate holder submits to other state, federal or local agencies, the certificate holder may submit excerpts from such other reports to satisfy this rule. The Council reserves the right to request full copies of such excerpted reports.

[Site Certificate Condition 13.1] [Mandatory Condition OAR 345-026-0080(1)]

b. In the annual report, the certificate holder shall include the following information for the calendar year preceding the date of the report:
   i. Facility Status: An overview of site conditions, the status of facilities under construction, and a summary of the operating experience of facilities that are in operation. In this section of the annual report, the certificate holder shall describe any unusual events, such as earthquakes, extraordinary windstorms, major accidents or the like that occurred during the year and that had a significant adverse impact on the facility.
   ii. Reliability and Efficiency of Power Production: For electric power plants, the plant availability and capacity factors for the reporting year. The certificate holder shall describe any equipment failures or plant breakdowns that had a significant impact on those factors and shall describe any actions taken to prevent the recurrence of such problems.
   iii. Status of Surety Information: Documentation demonstrating that bonds or letters of credit as described in the site certificate are in full force and effect and will remain in full force and effect for the term of the next reporting period.
   iv. Monitoring Report: A list and description of all significant monitoring and mitigation activities performed during the previous year in accordance with site certificate terms and conditions, a summary of the results of those activities and a discussion of any significant changes to any monitoring or mitigation program, including the reason for any such changes.
v. Compliance Report: A description of all instances of noncompliance with a site certificate condition. For ease of review, the certificate holder shall, in this section of the report, use numbered subparagraphs corresponding to the applicable sections of the site certificate.

vi. Facility Modification Report: A summary of changes to the facility that the certificate holder has determined do not require a site certificate amendment in accordance with OAR 345-027-0050.

[Site Certificate Condition 13.1.b] [Mandatory Condition OAR 345-026-0080(2)]

VII.5 The certificate holder and the Department of Energy shall exchange copies of all correspondence or summaries of correspondence related to compliance with statutes, rules and local ordinances on which the Council determined compliance, except for material withheld from public disclosure under state or federal law or under Council rules. The certificate holder may submit abstracts of reports in place of full reports; however, the certificate holder shall provide full copies of abstracted reports and any summarized correspondence at the request of the Department.

[Site Certificate Condition 13.2] [Mandatory Condition OAR 345-026-0105]

**Summary of Required Monitoring Programs.** As required under Council rule OAR 345-027-0028, the certificate holder is required to have specific monitoring programs for impacts to resources protected by Council standards and to resources addressed by other applicable statutes, administrative rules and local ordinances. The certificate holder’s should have the following monitoring programs in place and ensure that the monitoring programs include all information required to comply with site certificate conditions:

- **Cultural resources:** The certificate holder must monitor construction activities to ensure that construction personnel cease all ground-disturbing activities in the immediate area if any archaeological or cultural resources are found.

- **Operational safety:** The certificate holder must have an operational safety monitoring program, including inspection of turbine blades on a regular basis for signs of wear.

- **Fire control and prevention:** The certificate holder must have fire safety plans for construction and operation of the facility, including monitoring the site to minimize the risk of fire and to respond appropriately to any fires that occur on the site.

- **Hazardous materials:** The certificate holder must monitor the use of hazardous materials to ensure protection of public health, safety and the environment.

- **Soil impacts:** The certificate holder must implement an Erosion and Sediment Control Plan during construction to minimize adverse impacts to soils and must monitor the facility site during operation to maintain or repair erosion control measures.

- **Post-construction revegetation:** The certificate holder must restore areas temporarily disturbed during construction as described in the Revegetation and Weed Control Plan, including monitoring of the revegetated areas to ensure that success criteria are met.

- **Weed control:** The certificate holder must monitor the facility site during construction and operation to control the spread of noxious weeds.

- **Wildlife monitoring:** The certificate holder must monitor the facility site for impacts to wildlife species in accordance with a Wildlife Monitoring and Mitigation Plan.

- **Habitat mitigation:** The certificate holder must monitor the habitat mitigation area to ensure that success criteria are met and maintained for the life of the facility.
VIII. CONCLUSION AND ORDER OF THE COUNCIL

The applicant has submitted an application to construct a wind energy facility consisting of up to 87 wind turbines having a combined peak electric generating capacity of not more than 200.1 megawatts. The Council finds that a preponderance of evidence on the record supports the following conclusions:

1. The proposed Summit Ridge Wind Farm complies with the requirements of the Oregon Energy Facility Siting statutes, ORS 469.300 to 469.520.

2. The proposed Summit Ridge Wind Farm complies with the standards adopted by the Council pursuant to ORS 469.501.

3. The proposed Summit Ridge Wind Farm complies with the statewide planning goals adopted by the Land Conservation and Development Commission.

4. The proposed Summit Ridge Wind Farm complies with all other Oregon statutes and administrative rules identified in the Project Order as applicable to the issuance of a site certificate for the proposed facility.

Based on the findings of fact, reasoning, conditions, and conclusions of law in this Final Order, the Council concludes that the applicant has satisfied the requirements for issuance of a site certificate for the proposed Summit Ridge Wind Farm, subject to the conditions stated in this Order.

The Council grants issuance of a site certificate, subject to the terms and conditions set forth above, to LotusWorks – Summit Ridge I, LLC for the proposed Summit Ridge Wind Farm.

Issued this 19th day of August, 2011.

THE OREGON ENERGY FACILITY SITING COUNCIL

By: W. Bryan Wolfe, Chair
Oregon Energy Facility Siting Council

Exhibits
Exhibit 1: Revegetation and Weed Control Plan
Exhibit 2: Wildlife Monitoring and Mitigation Plan
Exhibit 3: Habitat Mitigation Plan
Exhibit 4: Site Certificate
Exhibit 5: Document Index

Notice of the Right to Appeal

You have the right to appeal this order to the Oregon Supreme Court pursuant to ORS 469.403. To appeal you must file a petition for judicial review with the Supreme Court within 60 days from the day this order was served on you. If this order was personally delivered to you, the date of service is the date you received this order. If this order was mailed to you, the date of service is the date it was mailed, not the day you received it. If you do not file a petition for judicial review within the 60-day time period, you lose your right to appeal.