

SRW-0162
ORIGINAL

**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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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

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ACRONYMS AND ABBREVIATIONS

AMEC	AMEC EARTH AND ENVIRONMENTAL
APPLICANT	LOTUSWORKS – 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
LOTUSWORKS	LOTUSWORKS – SUMMIT RIDGE I, LLC
MCE	MAXIMUM CREDIBLE EARTHQUAKE
MET	METEOROLOGICAL
MG	MILLIGAUSS
MW	MEGAWATT
NOI	NOTICE OF INTENT

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NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
NRHP	NATIONAL REGISTER OF HISTORIC PLACES
NWC	NORTHWEST WILDLIFE CONSULTANTS, INC
O&M	OPERATIONS AND MAINTENANCE
OAR	OREGON ADMINISTRATIVE RULES
ODF	OREGON DEPARTMENT OF FORESTRY
ODFW	OREGON DEPARTMENT OF FISH AND WILDLIFE
ODOE	OREGON DEPARTMENT OF ENERGY
ODOT	OREGON DEPARTMENT OF TRANSPORTATION
ORBIC	OREGON BIODIVERSITY INFORMATION CENTER
ORS	OREGON REVISED STATUTES
OWRD	OREGON WATER RESOURCES DEPARTMENT
PASC	PRELIMINARY APPLICATION FOR SITE CERTIFICATE
PGA	PEAK GROUND ACCELERATION
PUC	PUBLIC UTILITY COMMISSION
RAI	REQUEST FOR ADDITIONAL INFORMATION
SAG	SPECIAL ADVISORY GROUP
SC	SENSITIVE - CRITICAL
SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
SHPO	OREGON STATE HISTORIC PRESERVATION OFFICE
SOC	SPECIES OF CONCERN
ST	STATE THREATENED
SUMMIT RIDGE	SUMMIT RIDGE WIND FARM
SV	STATE SENSITIVE - VULNERABLE
USACE	UNITED STATES ARMY CORPS OF ENGINEERS
USFS	UNITED STATES FOREST SERVICE
USFWS	UNITED STATES FISH AND WILDLIFE SERVICE
WCCP	WASCO COUNTY COMPREHENSIVE PLAN
WCLUDO	WASCO COUNTY LAND USE AND DEVELOPMENT ORDINANCE
WEC	WASCO ELECTRIC COOPERATIVE
WECS	WIND ENERGY CONVERSION SYSTEM
WMMP	WILDLIFE MONITORING AND MITIGATION PLAN
ZVI	ZONE OF VISUAL INFLUENCE

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1 **I. INTRODUCTION**

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

9 In addition to all other conditions stated in this Order, the site certificate holder is subject
10 to all conditions and requirements contained in the rules of the Council and in local
11 ordinances and state law in effect on the date the certificate is executed. Under ORS
12 469.401(2), upon a clear showing of a significant threat to the public health, safety or the
13 environment that requires application of later-adopted laws or rules, the Council may require
14 compliance with such later-adopted laws or rules.

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

19 The definitions in ORS 469.300 and Oregon Administrative Rule (OAR) 345-001-0010
20 apply to terms used in this Final Order.

21 **Authority and Jurisdiction of the Council**

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

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

44 The Council is not authorized to determine compliance with regulatory programs that
45 have been delegated to another state agency by the federal government. ORS 469.503(3).
46 Nevertheless, the Council may consider these programs in the context of its own standards to

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1 ensure public health and safety, resource efficiency, and protection of the environment. The
2 Council has no jurisdiction over design or operational issues that do not relate to siting, such
3 as matters relating to employee health and safety, building code compliance, wage and hour
4 or other labor regulations, or local government fees and charges. ORS 469.401(4).

5 In accordance with ORS 469.370(1), the Oregon Department of Energy (Department)
6 issues a draft proposed order on an ASC. After the draft proposed order has been issued, the
7 Council must conduct at least one public hearing in the affected area. At the hearing, the
8 Council takes public comment on the ASC and draft proposed order. ORS 469.370(2). Any
9 issues that may be the basis for a contested case hearing must be raised by the public hearing
10 comment deadline or they are waived and cannot be considered in a contested case. ORS
11 469.370(3).

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

20 After the conclusion of the contested case proceeding, the Council decides whether to
21 grant a site certificate and issues a final order based on the standards adopted under ORS
22 469.501 and any additional state statutes, rules, or local government ordinances determined to
23 be applicable to the proposed facility. ORS 469.370(7).

24 The Council's final order is subject to judicial review by the Oregon Supreme Court.
25 Only a party to the contested case may request judicial review, and the only issues that may
26 be subject to judicial review are issues that parties to the contested case have raised. A
27 petition for judicial review must be filed with the Supreme Court within 60 days after the date
28 of service of the Council's final order or within 30 days after the date the petition for
29 rehearing is denied or deemed denied. ORS 469.403.

30

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1 **II. PROCEDURAL HISTORY OF THE SUMMIT RIDGE ASC REVIEW**

2 **II.A. NOTICE OF INTENT**

3 On May 28, 2009 LotusWorks submitted to ODOE a Notice of Intent (NOI) to submit an
4 Application for Site Certificate (ASC) for Summit Ridge.¹ The Department issued public
5 notice to the Council's general mailing list and to adjacent property owners on June 11, 2009,
6 and also published notice of the NOI in The Dalles Chronicle, a newspaper of general
7 circulation in the area. The NOI comment period was open from June 11 through July 13,
8 2009. A copy of the NOI and public notice were sent to The Dalles-Wasco County Library
9 and the Dufur School/Community Library, the designated information repositories for
10 documents related to the Summit Ridge project.

11 A memorandum to reviewing agencies requesting review of the Summit Ridge NOI was
12 issued on June 11, 2009. ODOE held a public information meeting on the Summit Ridge
13 NOI at Dufur High School in Dufur, Oregon on June 25, 2009. On July 31, 2009 the Council
14 appointed the Wasco County Board of Commissioners as a Special Advisory Group (SAG).²

15 At the close of the NOI comment period the Department had received comments from the
16 Wasco County Public Works Department, Oregon Department of Fish and Wildlife (ODFW),
17 the Oregon Parks and Recreation Department (OPRD), the State Historic Preservation Office
18 (SHPO, an office within OPRD), and the U.S. Fish and Wildlife Service (USFWS).
19 Comments from the Wasco County Planning Department were received on July 14, 2009.

20 ODOE issued the Project Order³ for the Summit Ridge project on July 30, 2009,
21 specifying the state statutes, administrative rules, and local, state, and tribal permitting
22 requirements applicable to the construction and operation of the Summit Ridge Wind Farm.

23 **II.B. APPLICATION FOR SITE CERTIFICATE**

24 LotusWorks submitted a preliminary ASC for the proposed Summit Ridge Wind Farm to
25 ODOE on September 30, 2009.⁴ A memorandum to reviewing agencies requesting review of
26 the Summit Ridge preliminary ASC was issued on October 6, 2009.⁵ Reviewing agencies
27 were requested to comment on the completeness of the preliminary ASC no later than
28 November 18, 2009. The Department received comments from the Oregon Department of
29 State Lands (DSL),⁶ ODFW,⁷ and the USFWS⁸ by the deadline. Comments from the Wasco
30 County Planning Department were received on December 7, 2009.⁹

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)

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1 On November 30, 2009 ODOE sent LotusWorks a letter stating that the application was
2 incomplete and requested additional information (RAI #1).¹⁰ The applicant submitted a
3 response to RAI #1 on January 19, 2010.¹¹ Following its review of the RAI #1, ODOE issued
4 RAI #2 on March 8, 2010.¹² LotusWorks responded on March 26, 2010.¹³ The applicant
5 submitted numerous additional documents to supplement the response to RAI #2 between
6 March 31 and July 1, 2010.

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

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

23 The Department received comments from the Wasco Electric Cooperative²⁰ on August
24 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)

¹⁷ Letter to LotusWorks: Application for Site Certificate for the Summit Ridge Wind Farm: Determination of Completeness, August 24, 2010 (SRW-0096)

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 20, 2010 (SRW-0089)

²¹ Water Resources Department Comment on ASC, August 25, 2010 (SRW-0085)

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1 15, the USFWS²³ on September 20, and comments from the Friends of the Columbia River
2 Gorge (FOCG) on September 27²⁴ and October 8, 2010.²⁵ The comments from DSL were
3 limited to a change of a contact name, and the comments from OWRD indicated that they had
4 no comments on the ASC. The comments from the Wasco Electric Cooperative were
5 addressed in Section IV.M (Siting Standards for Transmission Lines), and the comments
6 from the USFWS and the Friends of the Columbia River Gorge were addressed in Section
7 IV.G (Fish and Wildlife Habitat) of the Draft Proposed Order.
8

9 **II.C. RECORD OF THE PUBLIC HEARING ON THE DRAFT PROPOSED ORDER**

10 The Department issued the Draft Proposed Order²⁶ (DPO) for public comment on January 14,
11 2011. The DPO and initial public notice²⁷ stated that the record of the Hearing on the DPO would
12 close on February 3, 2011, and that the DPO would be reviewed by the Council the following day at
13 the Council's regularly scheduled meeting. A public hearing was conducted by the hearing officer
14 (Mr. John Burgess) on February 3, 2011, as originally scheduled.²⁸ However, due to a delay in the
15 availability of the DPO on the Department's website and a request from the FOCG that the comment
16 period be extended, Mr. Burgess announced at the hearing that the comment period on the DPO
17 would be extended through February 24, 2011. Mr. Burgess issued an Order to that effect on
18 February 7, 2011.²⁹ The Department issued a supplemental public notice on February 8, 2011 to
19 announce the extension of the record of the public hearing on the DPO.³⁰ The review of the DPO by
20 the Council was rescheduled for March 4, 2011.

21 Six persons provided oral testimony at the hearing held on February 3, 2011 (two of these
22 commenters also provided written testimony).³¹ The Department received a total of 19 written
23 comments during the DPO comment period (including those received at the February 3 hearing). A
24 summary of public and agency comments on the record of the DPO hearing is presented below.³²

25 The following persons expressed general support for the proposed facility, and these comments
26 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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- 1 • Garry and Janna Hage, The Dalles, Oregon.³³
- 2 • Carina Schmidt, Mosier, Oregon.³⁴
- 3 • Douglas Tuning, The Dalles, Oregon.³⁵
- 4 • Michael Zingg, Chairman of Partners for Economic Progress, The Dalles, Oregon.³⁶
- 5 • Jeff Easton, The Dalles, Oregon.³⁷
- 6 • Tim Norgren, The Dalles, Oregon.³⁸
- 7 • Shane Ervin (address unknown).³⁹
- 8 • Stephen Jensen, The Dalles, Oregon.⁴⁰
- 9 • Vincent Maldonado, The Dalles, Oregon.⁴¹
- 10 • Colin Smith, The Dalles, Oregon (oral testimony only).
- 11 • Wes Bliven, The Dalles, Oregon (oral testimony only).
- 12 • Rod Runyan, Wasco County Commissioner, The Dalles, Oregon (oral testimony only).

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

17 Tom Wood of The Dalles, Oregon, provided both oral and written testimony at the DPO public
18 hearing.⁴²

- 19 • Supports changing to cleaner forms of energy.
- 20 • Concerned about the loss of open natural places, including the impact of wind facilities in the
21 Deschutes River area.
- 22 • Did not specifically express support or opposition to the proposed Summit Ridge facility.

23 Glenn Harrison, Chair of the Oregon Historic Trail Advisory Council and past President of the
24 Oregon-California Trail Association provided oral comments.

- 25 • Concerned that the proposed Summit Ridge Wind Farm should avoid any impacts not only to
26 the Oregon Trail, but also to other historic trails in the project area (such as the Barlow Trail
27 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.

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1 Richard Jolly provided written comments on behalf of the Blue Mountain Alliance, Umatilla
2 County.⁴⁴

- 3 • Council should not allow the siting of wind turbines within six miles of Golden Eagle nests,
4 largely based on concern over population impacts.⁴⁵
- 5 • Concerned that cumulative effects data on state wide bird mortality totals and also totals for
6 bird mortalities per project are inadequate.

7 Doug Heiken provided written comments on behalf of Oregon Wild (Eugene, Oregon).⁴⁶

- 8 • Concerned that the proximity of the proposed Summit Ridge facility to both the Deschutes
9 River and the Mt. Hood National Forest increases the possibility of avian mortality.
- 10 • Concerned that fisheries in the Deschutes River might be adversely affected by increased
11 erosion and sedimentation resulting from the extensive road network necessary to construct
12 and operate the project.⁴⁷

13 Jim Maloney provided written comments on behalf of the Lane County Audubon Society (LCAS).⁴⁸

- 14 • Concerned about cumulative effects of turbines on avian mortality.
- 15 • Concurred with previous ODFW comments and USFWS position on golden eagles.
- 16 • General mitigation should be required for anticipated fatalities.
- 17 • Urges surveys, monitoring and that Council incorporate USFWS's Draft Eagle Conservation
18 Plan Guidance.⁴⁹

19 Tyler and Leanne Neal, residents about 20 miles south of the proposed facility, provided written
20 comment.⁵⁰

- 21 • Concerned about avian protection, recommended a 6-mile buffer around Golden Eagle
22 nesting sites.
- 23 • Concerned about visual impacts.
- 24 • Concerned about traffic safety impacts and conflicts caused by the movement of turbine
25 parts, especially on Highway 197.⁵¹

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

29 Peter Cornelison, representing Friends of Columbia Gorge (FOCG), presented oral and written
30 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.G 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.

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1 on February 3, 2011,⁵³ which were superseded by FOCG comments submitted by Mr. Till on
2 February 24, 2011.⁵⁴ The following list incorporates and summarizes the FOCG comments.

- 3 • Visual impacts of the proposed Summit Ridge facility on the Columbia Gorge National
4 Scenic Area and the Deschutes River Wild and Scenic Rivers.
- 5 ○ Compliance with Scenic and Aesthetic Standard (OAR 345-022-0080)
 - 6 ○ Compliance with Protected Areas Standard (OAR 345-022-0040(k))
 - 7 ○ Compliance with Recreational Standard (OAR 345-022-0100)
 - 8 ○ Compliance with Land Use standard (OAR 345-022-0030), particularly with local
9 government compatibility requirement for Deschutes Wild and Scenic River
 - 10 ○ Adequacy of modeling for visual impacts
 - 11 ○ Compliance with Columbia River Gorge Management Plan and requirements of the
12 Wild and Scenic Rivers requirements for the Deschutes River
- 13 • Concern about impacts to avian species, particularly Bald and Golden Eagles.
- 14 ○ Compliance with Fish and Wildlife Habitat Standard (OAR 345-022-0060); scientific
15 studies should be peer reviewed.
 - 16 ○ United States Fish and Wildlife Service comments are not addressed.
- 17 • Council must apply the public interest balancing test before approving the Summit Ridge
18 Project.⁵⁵

19 Richard Allan, Ball Janik LLP,⁵⁶ representing the applicant (Lotus Works – Summit Ridge
20 responded to the comments submitted by the Friends of Columbia Gorge on February 3, 2011 (SRW-
21 0132). Mr. Allan clarified applicable standards, including visual resources, land use and avian
22 impacts; and responded to methodological issues.

23 Gary Nychyk, Interim Planning Director, provided comments on behalf of the Wasco County
24 Planning and Development Office.⁵⁷ Mr. Nychyk's comments responded to several issues raised by
25 Friends of the Columbia Gorge relating to compliance with local land use requirements, and are
26 discussed further in section IV.D of this Order.

⁵² Summit Ridge Wind Farm DPO Hearing Written Comment from Friends of the Columbia Gorge, February 3, 2011 (SRW-0117)

⁵³ Public Comment from the Friends of the Columbia Gorge on Summit Ridge Wind Farm DPO, February 3, 2011 (SRW-0132)

⁵⁴ Public Comment from Friends of the Columbia Gorge on Summit Ridge Wind Farm DPO, February 24, 2011 (SRW-0133). Because the February 3, 2011 comments were entered into the record and were the basis for the response by the applicant [Response from LotusWorks, Summit Ridge I, LLC via Attorney Richard H. Allan to Friends of the Columbia Gorge Comments on 2/3/11, February 24, 2011 (SRW-0120)], they are included in the record of the hearing on the Summit Ridge Draft Proposed Order. The February 24, 2011 comments also incorporated prior FOCG comments made on September 27, 2010 (SRW-0087) and October 8, 2010 (SRW-0088) by reference.

⁵⁵ 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 345-022-0000 (2).

⁵⁶ SRW-0120

⁵⁷ Agency Comment from Wasco County Planning and Development on Summit Ridge Wind Farm DPO, February 24, 2011 (SRW-0124)

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1 A copy of the record of the public hearing on the Draft Proposed Order was provided to the
2 members of the Energy Facility Siting Council on April 25, 2011.⁵⁸ The Draft Proposed Order was
3 presented to the Council on March 4, 2011.⁵⁹ Based on its final review of the complete application
4 and the comments received during the comment period on the application and comments received on
5 the record of the public hearing for the Draft Proposed Order, the Department issued a Proposed
6 Order.

7 **II.D. THE PROPOSED ORDER AND CONTESTED CASE PROCEEDING**

8 A Proposed Order⁶⁰ was issued with a Notice of Contested Case Proceeding⁶¹ on June 23,
9 2011. The deadline for requests to participate as a party in the contested case was on July 7,
10 2011. No petitions or requests for a contested case proceeding were received. In a letter
11 dated July 11, 2011, the applicant confirmed through its attorney that it had no issues to raise
12 in the contested case.⁶² The hearing officer cancelled the pre-hearing conference and hearing
13 (pursuant to ORS 469.370(6)), and concluded the contested case proceeding on July 12,
14 2011.⁶³ The Council therefore issues this Final Order.
15

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)

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1 **III. DESCRIPTION OF THE FACILITY**

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

7 **III.A. LOCATION AND SITE BOUNDARY**

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

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

23 The facility encompasses all or portions of the following:

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

31 **III.B. THE ENERGY FACILITY**

32 The combined peak generating capacity of Summit Ridge would be up to 200.1
33 megawatts (MW). The average electric generating capacity would be approximately 67
34 MW.⁶⁴ The facility would consist of up to 87 wind turbine generators, each producing 1.8 to
35 2.3 MW of electrical power. Turbines would be mounted on tubular steel towers
36 approximately 80 meters (263 feet) tall at the turbine hub, with a rotor diameter of 101 meters
37 (331 feet). Any increase in the number of turbines or the peak generating capacity would
38 require an amendment of the site certificate.

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

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.

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1 requirements of the selected turbine model. A gravel turbine pad area would surround the
2 base of each concrete turbine foundation.

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

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

- 10 • Power collection system
- 11 • Collector substation
- 12 • 230 kV transmission line
- 13 • Supervisory Control and Data Acquisition (SCADA) System
- 14 • Operations and maintenance (O&M) facility
- 15 • Meteorological (met) towers
- 16 • Access roads
- 17 • Temporary roadway modifications
- 18 • Additional temporary construction areas (including laydown areas, crane paths, and a
19 concrete batch plant)

20 **Power Collection System**

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

31 **Collector Substation**

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

35 **230 kV Transmission Line**

36 A new overhead 230 kV transmission feeder line will connect the facility's collector
37 substation to the regional grid at a substation operated by the Bonneville Power Administration
38 (BPA). The new overhead 230 kV transmission line will be approximately eight miles in length,
39 running northwest from the collector substation for approximately two miles, then almost due
40 west for another six miles to the BPA substation, connecting with BPA's 500 kV "Big Eddy to
41 Maupin-Redmond" transmission line. The Summit Ridge transmission line will be supported on
42 wooden H-frame poles that are 70 feet in height and spaced approximately 800 feet apart. The
43 right-of-way for the transmission line is approximately 150 feet wide.

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1 BPA will be responsible for the operation and maintenance of the interconnection facility. If
2 the Summit Ridge facility were to cease operation and a decommissioning/retirement plan is
3 implemented, the transmission system operator is not obliged under the site certificate to
4 dismantle the interconnection station, which will also be used to serve other customers.

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

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

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

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

17 **Meteorological Towers**

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

23 **Access Roads**

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

29 **Temporary Roadway Modifications**

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

35 **Additional Construction Areas**

36 During construction, six temporary laydown areas will be used for the delivery and staging of
37 wind turbine components and other equipment and materials, as well as the staging of
38 construction trailers for the construction crews. Five of the six temporary laydown areas will be
39 located on approximately four acres, covered with gravel, which will be removed upon
40 completion of facility construction. The sixth temporary laydown area will encompass the
41 permanent five-acre collector substation and O&M site. Concrete for construction of the facility

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1 would be obtained from an on-site concrete batch plant to be located on a graveled 2-acre site
2 within the site boundary. The batch plant will be permitted and operated by a third-party.

3 **III.C. CONSTRUCTION TIMELINE**

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

7 **III.D. SITE CERTIFICATE CONDITIONS**

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

17 III.D.1 The certificate holder shall begin construction of the facility within three years after the
18 effective date of the site certificate. Under OAR 345-015-0085(9), a site certificate is effective
19 upon execution by the Council Chair and the applicant. The Council may grant an extension of
20 the deadline to begin construction in accordance with OAR 345-027-0030 or any successor rule
21 in effect at the time the request for extension is submitted.

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

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

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

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

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

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

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

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1 [Site Certificate Condition 4.4] [Mandatory Condition OAR 345-027-0020(3)]

2 III.D.5 Before beginning construction, the certificate holder shall provide to the Department a
3 description of the turbine types selected for the facility demonstrating compliance with this
4 condition. The certificate holder may select turbines of any type, subject to the following
5 restrictions and compliance with all other site certificate conditions:

- 6 (a) The total number of turbines at the facility must not exceed 87 turbines.
7 (b) The combined peak generating capacity of the facility must not exceed 200.1 megawatts
8 and the peak generating capacity of any individual turbine must not exceed 2.3 megawatts.
9 (c) The turbine hub height must not exceed 80 meters and the maximum blade tip height must
10 not exceed 132 meters above grade.
11 (d) The minimum blade tip clearance must be 28 meters above ground.

12 [Site Certificate Condition 5.5] [Mandatory Condition OAR 345-027-0020(3)]

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

- 22 (a) The certificate holder would construct and operate part of the facility on that part of the
23 site even if a change in the planned route of the transmission line or pipeline occurs during
24 the certificate holder's negotiations to acquire construction rights on another part of the
25 site; or
26 (b) The certificate holder would construct and operate part of a wind energy facility on that
27 part of the site even if other parts of the facility were modified by amendment of the site
28 certificate or were not built.

29 [Site Certificate Condition 5.7] [Mandatory Condition OAR 345-027-0020(5)]

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

35 [Site Certificate Condition 2.9] [Mandatory Condition OAR 345-027-0020(3)]

36 III.D.8 The certificate holder shall construct the turbines and transmission line within the corridor
37 locations set forth in Exhibit C of the application for site certificate, subject to the conditions of
38 this site certificate.

39 [Site Certificate Condition 4.5] [Mandatory Condition OAR 345-027-0023(5)]
40

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1 **IV. ENERGY FACILITY SITING STANDARDS**

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

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

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

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

20 * * *

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

24 IV.B Organizational Expertise (OAR 345-022-0010)

25 IV.C Soil Protection (OAR 345-022-0022)

26 IV.D Land Use (OAR 345-022-0030)

27 IV.E Protected Areas (OAR 345-022-0040)

28 IV.F Retirement and Financial Assurance (OAR 345-022-0050)

29 IV.G Fish and Wildlife Habitat (OAR 345-022-0060)

30 IV.H Threatened and Endangered Species (OAR 345-022-0070)

31 IV.I Scenic Resources (OAR 345-022-0080)

32 IV.J Recreation (OAR 345-022-0100)

33 IV.K Public Health and Safety Standards (OAR 345-024-0010)

34 IV.L Siting Standards for Wind Energy Facilities (OAR 345-024-0015)

35 IV.M Siting Standards for Transmission Lines (OAR 345-024-0090)

36

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1 **IV.B. ORGANIZATIONAL EXPERTISE [OAR 345-022-0010]**

- 2 (1) *To issue a site certificate, the Council must find that the applicant has the organizational*
3 *expertise to construct, operate and retire the proposed facility in compliance with Council*
4 *standards and conditions of the site certificate. To conclude that the applicant has this*
5 *expertise, the Council must find that the applicant has demonstrated the ability to design,*
6 *construct and operate the proposed facility in compliance with site certificate conditions and in*
7 *a manner that protects public health and safety and has demonstrated the ability to restore the*
8 *site to a useful, non-hazardous condition. The Council may consider the applicant's*
9 *experience, the applicant's access to technical expertise and the applicant's past performance*
10 *in constructing, operating and retiring other facilities, including, but not limited to, the number*
11 *and severity of regulatory citations issued to the applicant.*
- 12 (2) *The Council may base its findings under section (1) on a rebuttable presumption that an*
13 *applicant has organizational, managerial and technical expertise, if the applicant has an ISO*
14 *9000 or ISO 14000 certified program and proposes to design, construct and operate the facility*
15 *according to that program.*
- 16 (3) *If the applicant does not itself obtain a state or local government permit or approval for which*
17 *the Council would ordinarily determine compliance but instead relies on a permit or approval*
18 *issued to a third party, the Council, to issue a site certificate, must find that the third party has,*
19 *or has a reasonable likelihood of obtaining, the necessary permit or approval, and that the*
20 *applicant has, or has a reasonable likelihood of entering into, a contractual or other*
21 *arrangement with the third party for access to the resource or service secured by that permit or*
22 *approval.*
- 23 (4) *If the applicant relies on a permit or approval issued to a third party and the third party does*
24 *not have the necessary permit or approval at the time the Council issues the site certificate, the*
25 *Council may issue the site certificate subject to the condition that the certificate holder shall*
26 *not commence construction or operation as appropriate until the third party has obtained the*
27 *necessary permit or approval and the applicant has a contract or other arrangement for access*
28 *to the resource or service secured by that permit or approval.*

29 **IV.B.1 ORGANIZATIONAL EXPERTISE: FINDINGS OF FACT**

30 The applicant provided evidence of its organizational expertise in Exhibit D of the ASC
31 and about permits needed for construction and operation of the facility in Exhibit E of the
32 ASC. The applicant does not propose to design, construct and operate the proposed facility in
33 accordance with an International Organization for Standardization (ISO) 9000 or ISO 14000
34 certified program.⁶⁵ The applicant states it will not rely on any third-party permit approval
35 for state, local, or federal permits required for construction or operation of the facility.⁶⁶
36 Therefore, the Council finds that the requirements of OAR 345-022-0010(2), (3), and (4) do
37 not apply to the proposed facility.

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

⁶⁵ Final ASC, Section D.7, p. 4

⁶⁶ Final ASC, Section E.5, p. 9

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1 Elkhorn Wind Project (100 MW) in eastern Oregon. It has also provided the White Creek
2 Wind I project with site inspectors and support staff.⁶⁷ The applicant states that it has not
3 received any regulatory citations in the course of constructing or operating wind energy
4 facilities.⁶⁸

5 The applicant has identified specific qualified and experienced internal personnel for
6 management of the design, construction, and operation of the proposed facility. It has not
7 selected a prime contractor for construction of the proposed facility but states that it would
8 hire qualified contractors with direct experience in wind energy facility construction to design
9 and build the proposed facility.⁶⁹

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

14 **IV.B.2 ORGANIZATIONAL EXPERTISE: SITE CERTIFICATE CONDITIONS**

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

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

24 IV.B.2.2 The certificate holder shall contractually require all construction contractors and
25 subcontractors involved in the construction of the facility to comply with all
26 applicable laws and regulations and with the terms and conditions of the site
27 certificate. Such contractual provisions shall not operate to relieve the
28 certificate holder of responsibility under the site certificate. [Site Certificate
29 Condition 5.2]

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

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

40 IV.B.2.5 Any matter of non-compliance under the site certificate shall be the
41 responsibility of the certificate holder. Any notice of violation issued under the
42 site certificate shall be issued to the certificate holder. Any civil penalties

⁶⁷ Final ASC, Section D.2, p. 1

⁶⁸ Final ASC, Section D.5, p. 4

⁶⁹ Final ASC, Section D.4, p. 2

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1 assessed under the site certificate shall be levied on the certificate holder. [Site
2 Certificate Condition 2.11]

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

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

12 IV.B.2.8 Before any transfer of ownership of the facility or ownership of the site
13 certificate holder, the certificate holder shall inform the Department of the
14 proposed new owners. The requirements of OAR 345-027-0100 apply to any
15 transfer of ownership that requires a transfer of the site certificate.

16 [Mandatory Condition OAR 345-027-0020(15)] [Site Certificate Condition 2.10]

17 **IV.B.3 ORGANIZATIONAL EXPERTISE: CONCLUSIONS OF LAW**

18 Based on the foregoing findings, and subject to compliance with the site certificate
19 conditions, the Council finds that LotusWorks has the organizational expertise to construct,
20 operate and retire the proposed facility in compliance with Council standards and conditions
21 of the site certificate and therefore complies with the Organizational Expertise Standard.
22

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1 **IV.C. SOIL PROTECTION [OAR 345-022-0022]**

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

6 **IV.C.1 SOIL PROTECTION: FINDINGS OF FACT**

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

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

20 **Potential Soil Impacts during Construction**

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

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

32 **Potential Soil Impacts during Operation**

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

40 **Measures to Mitigate Adverse Impacts to Soil**

41 During construction of the facility, the certificate holder would be subject to the
42 requirements of the National Pollutant Discharge Elimination System (NPDES) Stormwater
43 Discharge General Permit #1200-C and associated Erosion and Sediment Control Plan

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1 (ESCP).⁷⁰ The Oregon Department of Environmental Quality (DEQ) received the NPDES
2 permit application on September 1, 2009 and on September 29, 2009 sent a letter to the
3 Department indicating that the application was “complete with the exception of a site
4 certification from the Oregon Department of Energy and review and revisions to the Erosion
5 and Sediment Control Plan if necessary.”⁷¹ The DEQ reviewer stated that he had reviewed
6 the ESCP for the Summit Ridge Wind Project and did not anticipate that the plan will require
7 substantial revision to meet application requirements.⁷²

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

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

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

27 The applicant proposes to restore the temporarily disturbed areas upon completion of
28 construction as described in the ESCP and Revegetation and Weed Control Plan (“Weed
29 Control Plan”).⁷⁵ During review of the preliminary application, the Department received
30 letters from both the Oregon Department of Fish and Wildlife (ODFW)⁷⁶ and the Wasco
31 County Weed Department⁷⁷ indicating that the agencies found the Weed Control Plan to be
32 adequate to address potential impacts during construction and operation of the Summit Ridge
33 facility. The Weed Control Plan describes the approach and specifications for revegetating
34 temporarily disturbed areas and controlling the introduction and spread of noxious weeds
35 throughout the lifetime of the facility. The plan includes a description of the seed mix that
36 the applicant proposes to use for revegetation activities, the weed monitoring program, and

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.

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

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

⁷³ Final ASC, Section I.4, p. 4

⁷⁴ Final ASC, Section I.4, p. 3 and I.5, p. 5

⁷⁵ Final ASC, Attachment I-2

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

⁷⁷ Wasco County Weed Department Comment, May 21, 2011 (SRW-0050)

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1 the criteria for restoration success. The Draft Revegetation and Weed Control Plan prepared
2 by the Department (based on the applicant's proposed plan) is included as Exhibit 1 to this
3 Order.

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

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

17 **IV.C.2 SOIL PROTECTION: SITE CERTIFICATE CONDITIONS**

18 Based on the review of the information provided in Exhibit I of the ASC and other
19 evidence in the record, and to ensure compliance with the Soil Protection standard in OAR
20 345-022-0020, the Council includes the following conditions in the site certificate:

- 21 IV.C.2.1 The certificate holder shall conduct all construction work in compliance with an
22 Erosion and Sediment Control Plan (ESCP) satisfactory to the Oregon
23 Department of Environmental Quality and as required under the National
24 Pollutant Discharge Elimination System (NPDES) Storm Water Discharge
25 General Permit #1200-C. The certificate holder shall include in the ESCP any
26 procedures necessary to meet local erosion and sediment control requirements
27 or storm water management requirements. [Site Certificate Condition 9.1]
- 28 IV.C.2.2 During construction, the certificate holder shall limit truck traffic to improved
29 road surfaces to avoid soil compaction and wind erosion on dirt roads, to the
30 extent practicable. [Site Certificate Condition 9.2]
- 31 IV.C.2.3 During construction, the certificate holder shall implement best management
32 practices to control any dust generated by construction activities, such as
33 applying water to roads and disturbed soil areas. [Site Certificate Condition 9.3]
- 34 IV.C.2.4 The certificate holder shall handle hazardous materials used on the site in a
35 manner that protects public health, safety and the environment and shall comply
36 with all applicable local, state and federal environmental laws and regulations.
37 The certificate holder shall not store diesel fuel or gasoline on the facility site.
38 [Site Certificate Condition 9.4]
- 39 IV.C.2.5 If a spill or release of hazardous material occurs during construction or
40 operation of the facility, the certificate holder shall notify the Department within
41 72 hours and shall clean up the spill or release and dispose of any contaminated
42 soil or other materials according to applicable regulations. The certificate
43 holder shall make sure that spill kits containing items such as absorbent pads are
44 located on equipment and at the O&M building. The certificate holder shall
45 instruct employees about proper handling, storage and cleanup of hazardous
46 materials. [Site Certificate Condition 9.5]

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1 IV.C.2.6 Upon completion of construction, the certificate holder shall restore vegetation
2 to the extent practicable and shall landscape all areas disturbed by construction
3 in a manner compatible with the surroundings and proposed use and in
4 compliance with the Revegetation and Weed Control Plan (Exhibit 1 to the
5 Final Order). Upon completion of construction, the certificate holder shall
6 remove all temporary structures not required for facility operation and dispose
7 of all timber, brush, refuse and flammable or combustible material resulting
8 from clearing of land and construction of the facility. [Site Certificate Condition 9.6]
9 [Mandatory Condition OAR 345-027-0020(11)]

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

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

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

19 Based on the foregoing findings, and subject to compliance with the site certificate
20 conditions, the Council finds that the design, construction and operation of the proposed
21 facility are not likely to result in a significant adverse impact to soils, and therefore the
22 proposed facility complies with the Soil Protection Standard.

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1 **IV.D. LAND USE [OAR 345-022-0030]**

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

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

5 ***

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

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

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

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

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

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

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

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

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

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

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

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

49 ***

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1 **IV.D.1 LAND USE: FINDINGS OF FACT**

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

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

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

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

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

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).

⁷⁹ *Save Our Rural Oregon v Energy Facility Siting Council*, 339 Or 353 (2005)

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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1 The applicable substantive criteria are:

2 **Wasco County Land Use and Development Ordinance (WCLUDO)**

3 Chapter 1 – Introductory Provisions

4 Section 1.030 (Severability/Legal Parcel Determination)

5 Section 1.090 (Definitions of Parcel and Structure)

6 Chapter 3 – Basic Provisions

7 Section 3.210(B)(7) (Reconstruction or Modification of Roads)

8 Section 3.210(D)(12) and (13) (Utility Facilities Necessary for Public Service and
9 Transmission Facilities under 200 Feet in Height)

10 Section 3.210(E)(8) (Commercial Utility Facility)

11 Section 3.210(E)(12) (Mining, Crushing or Stockpiling of Mineral Aggregate)

12 Section 3.210(E)(13) (Processing of Aggregate into Asphalt)

13 Section 3.210(F)(1), (2), (4), (5) and (7) (Property Development Standards)

14 Section 3.210(H) (Agricultural Protection)

15 Section 3.210(J)(8) (Additional Standards for Utility Facilities)

16 Section 3.210(J)(17) (Additional Standards for Wind Power Generation Facilities)

17 Chapter 4 – Supplemental Provisions

18 Section 4.070 (General Exceptions to Building Height Requirements)

19 Chapter 5 – Conditional Use Review

20 Section 5.020 (Authorization to Grant or Deny Conditional Uses, and Standards and
21 Criteria Used)

22 Section 5.030 (Conditions)

23 Section 5.040 (Revocation)

24 Chapter 10 – Fire Safety Standards

25 Chapter 19 – Standards for Energy Facilities and Commercial Energy Facilities

26 Section 19.010 (Classification of Energy Facilities)

27 Section 19.030(B) (A Transmission Facility as a use Permitted Subject to Standards)

28 Section 19.030(C) (A Wind Facility is a Use Permitted Subject to Standard; Specific
29 Standards Referenced by F)

30 Section 19.030(F) (Conditional Use Standards for Wind Facilities)

31 Section 19.040 (Additional Approval Standards)

32 Section 19.050 (Conditions of Approval)

33 **Wasco County Comprehensive Plan (WCCP)**

34 Section V – Community Facilities and Services (Parks and Recreation and Scenic Areas
35 which include Highway 30 & 84 and the Columbia River Gorge)

36 Section XV – Goals and Policies

37 Goal 1 (Citizen Involvement)

38 Goal 2 (Land Use Planning)

39 Goal 3 (Agricultural Lands)

40 Goal 5 (Open Space, Scenic and Historic Areas and Natural Resources)

41 Goal 6 (Air, Water and Land Resources Quality)

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- 1 Goal 8 (Recreational Needs)
- 2 Goal 9 (Economy of the State)
- 3 Goal 11 (Public Facilities and Services)
- 4 Goal 12 (Transportation)
- 5 Goal 13 (Energy Conservation)

6 **State Standards**

- 7 Oregon Revised Statutes
- 8 215.275 (Utility Facilities necessary for public service)
- 9 215.283 (Uses permitted in exclusive farm use zones)
- 10 215.296 (Standards for approval of certain uses in exclusive farm use zones)
- 11 Oregon Administrative Rules
- 12 660-033-0130(37) (Wind Energy Siting Standards for the Protection of Farmland)

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

19 **IV.D.1.a. Wasco County's Applicable Substantive Criteria**

20 **i) WCLUDO Section 1.030: Severability and 1.090: Definitions**

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

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

29 **Section 3.210(B): Uses Permitted Without Review**

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

31 ***

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

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

⁸⁴ Final ASC, Section K.5, p. 10

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1 but this standard does not apply to construction of new private roads. The Council finds
2 that, as proposed, the road improvements are a use permitted under this standard.

3 **Section 3.210(D). Uses Permitted Subject to Standards**

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

8 ***

9 **UTILITY/ENERGY FACILITIES**

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

12 ***

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

18 ***

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

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

29 **Section 3.210(E) Conditional Uses**

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

34 ***

35 **ENERGY/UTILITY/SOLID WASTE DISPOSAL FACILITIES**

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

41 The proposed facility and its supporting facilities, with the exception of the
42 proposed 230 kV feeder line, are considered a commercial utility facility for the purpose
43 of generating power for public use by sale and are therefore subject to the requirements

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1 of Section 3.210(J)(17) and Chapter 19. Because the applicant has chosen to have the
2 Council determine land use compliance, Chapter 20, Site Plan Review, is not applicable
3 to this proposed facility.

4 **MINERAL/AGGREGATE/GEOTHERMAL USES**

5 *12. Aggregate: Operations conducted for the mining, crushing or stockpiling of mineral,*
6 *aggregate and other subsurface resources subject to Section J(9), Additional Standards*
7 *below, Section 3.800, Mineral & Aggregate Overlay and the applicable provisions of Chapter*
8 *20, Site Plan Review.*

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

14 The applicant does not propose new operations for the mining, crushing or
15 stockpiling of aggregate. The applicant proposes to purchase all necessary aggregate
16 from local permitted facilities. A temporary batch plant for the processing of concrete
17 may be placed in one of the proposed laydown areas, and that temporary facility will be
18 removed when construction is completed.⁸⁵ A temporary batch plant is not subject to the
19 requirements of this section, because the applicant does not propose to process asphalt or
20 to process aggregate into Portland cement. The Council finds that the proposed facility is
21 not subject to the requirements of Sections (12) and (13) or the requirements of Chapter
22 20, Site Plan Review.

23 **Section 3.210(F) Property Development Standards**

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

31 **1. Setbacks**

32 **a. Property Line**

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

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

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

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

⁸⁵ Final ASC, Section K.5, p. 12

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1 (d) If any of the setbacks listed above conflict with the Sensitive Wildlife Habitat
2 Overlay the following shall apply and no variance shall be required:

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

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

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

10 All structures associated with the proposed facility are subject to the property
11 line setback standards. All land adjacent to the analysis area is currently being used
12 for grazing and winter wheat production. Therefore, the proposed facility is subject
13 to the 200 foot setback described in subsection (b). With the exception of some
14 transmission lines and poles, all aboveground elements of the proposed facility will
15 be located at least 200 feet from property lines as required by this section. Some of
16 the proposed transmission lines and poles cannot comply with this section due to the
17 linear nature of the transmission lines and the fact that the lines are proposed to
18 cross multiple parcels.⁸⁶ Therefore, the Council finds that, with the exception of the
19 transmission lines and poles that cannot be located at least 200 feet from the
20 property line, as proposed the application satisfies this standard. To the extent this
21 standard is not met for those transmission lines and poles that do not meet the 200
22 foot setback requirement, the application is reviewed below under ORS
23 469.504(1)(b)(B) for compliance with the applicable statewide planning goals.

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

27 b. Waterways:

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

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

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

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

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

⁸⁶ Final ASC, Section K.5, p. 13

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1 (e) *The following uses are not required to meet the waterway setbacks, however*
2 *they must be sited, designed and constructed to minimize intrusion into the riparian area*
3 *to the greatest extent possible:*

4 (i) *Fences;*

5 (ii) *Streets, roads, and paths;*

6 (iii) *Drainage facilities, utilities, and irrigation pumps;*

7 (iv) *Water-related and water-dependent uses such as docks and bridges;*

8 (v) *Forest practices regulated by the Oregon Forest Practices Act;*

9 (vi) *Agricultural activities and farming practices, not including the construction*
10 *of buildings, structures or impervious surfaces; and*

11 (vii) *Replacement of existing structures with structures in the same location that*
12 *do not disturb additional riparian surface area.*

13 ASC Exhibit J, Section J.1 identifies and includes a study of waterways located
14 within the analysis area. As proposed, no foundations or permanent structures are
15 proposed to be located within 100 feet of any waterways.⁸⁷ The proposed 230 kV feeder
16 line is not subject to the setback requirements of this section because it is considered a
17 utility pursuant to subsection (iii). The Council finds that, as proposed, the facility
18 satisfies this standard.

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

23 The Federal Emergency Management Agency (FEMA) has issued a Flood Insurance
24 Rate Map for Wasco County, which shows that the majority of the County is located in
25 Zone C, Area of Minimal Flooding (FEMA Flood Insurance Rate Map 410229B).
26 Within Wasco County there are small areas that are designated Zone A, 100-Year
27 Floodplain. No development is proposed within those areas.⁸⁸ The Council finds that, as
28 proposed, the application satisfies this standard.

29 *c. Irrigation Ditches:*

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

36 As proposed, the facility does not include development within 50 feet of the
37 centerline of an irrigation ditch that continues past the subject parcel to provide water to
38 other property owners.⁸⁹ The Council finds that, as proposed, the facility satisfies this
39 standard.

⁸⁷ Final ASC, Section K.5, p. 14

⁸⁸ Final ASC, Section K.5, p. 14

⁸⁹ Final ASC, Section K.5, p. 15

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1 **2. Height**

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

5 This section applies to those proposed structures that are not subject to the
6 provisions of Section 4.070. Section 4.070 allows energy facilities and commercial
7 energy facilities to be erected above the height limit of the zone in which they are located
8 provided that no usable floor space is constructed in such structures above the stated
9 height limits. None of the structures proposed to exceed the stated height limit, including
10 transmission towers and turbine towers, provide any usable floor space above a height of
11 35 feet. Therefore, these structures are subject to compliance with Section 4.070.

12 The proposed Operations and Maintenance (O&M) building is the only structure
13 proposed to provide usable floor space. As proposed, this structure will comprise a single
14 story that will not exceed 35 feet in height.⁹⁰ Therefore, the Council finds that, as
15 proposed and subject to compliance with Condition IV.D.2.1⁹¹ to ensure compliance with
16 this height limitation, the O&M building satisfies this standard.

17 **4. Signs**

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

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

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

22 *d. Size and Height of Permanent Signs:*

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

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

28 *e. Number of permanent signs:*

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

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

34 The only signs proposed are safety signs required by Section 19.030. These signs
35 are not proposed to exceed the size limitations or violate locational requirements
36 established in this section.⁹² Therefore, the Council finds that, as proposed, and subject
37 to compliance with Condition IV.D.2.2 to ensure compliance with all signage
38 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

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1 **5. Lighting**

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

5 The O&M building site is proposed to be lighted; exterior lighting is proposed to be
6 directed downward to limit glare and light pollution. Turbines and other components of
7 the proposed energy facility are proposed to be lit only as required by the Federal
8 Aviation Administration (FAA).⁹³ However, in order to satisfy this standard, the exterior
9 lighting must also be shielded and hooded in a manner that prevents the lighting from
10 projecting onto adjacent property. Therefore, the Council finds that as proposed, facility
11 can meet this standard, subject to compliance with Condition IV.D.2.3 which requires
12 that the lighting proposal include provisions to ensure that that all exterior lighting be
13 shielded and hooded in compliance with this standard.

14 **7. New Driveways**

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

18 The proposed facility will take access from existing private roads and no changes to
19 driveways accessing private roads are proposed.⁹⁴ Therefore, the Council finds that this standard
20 does not apply to the proposed facility.

21 **Section 3.210(H) Agricultural Protection:**

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

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

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

31 The applicant has agreed to execute and record the Farm-Forest Management
32 easement, as required by this standard.⁹⁵ The Council finds that this standard can be met,
33 subject to compliance with Condition IV.D.2.4, to ensure execution and recording of the
34 required easement.

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

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

⁹³ Final ASC, Section K.5, p. 16

⁹⁴ Final ASC, Section K.5, p. 16

⁹⁵ Final ASC, Section K.5, p. 17

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1 that the facility must be sited in an exclusive farm use zone due to one or more of the
2 following factors:

3 (1) Technical and engineering feasibility;

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

8 (3) Lack of available urban and nonresource lands;

9 (4) Availability of existing rights of way;

10 (5) Public health and safety; and

11 (6) Other requirements of state and federal agencies.

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

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

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

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

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

38 The majority of land in Wasco County that is located outside of an Urban Growth
39 Boundary (UGB) is designated EFU. Neither urban nor non-resource land is available to
40 accommodate the proposed 230 kV transmission feeder line. The principal components
41 (turbines) and related and supporting facilities (roads, O&M building, and substation) are
42 proposed to be located on land designated EFU, and in the A-1 zone. The 230 kV
43 transmission line must be located in the vicinity of the turbine strings and BPA
44 interconnection point in order to transfer energy to the electrical grid. Alternative urban

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1 or non-resource sites are not available to accommodate these locational needs. Therefore,
2 the facility satisfies Criterion 3 (lack of available urban or non-resource land).

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

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

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

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

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 be 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

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

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

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

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

21 (a) *Technical and engineering feasibility;*

22 (b) *Availability of existing rights of way; and*

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

26 ASC Exhibit I includes a soils study that determines that some of the soils on which
27 the proposed facility is located meet the definition of "high value farmland" in ORS
28 215.710. Because they meet the definition of "high value" in ORS 215.710, those same
29 soils also meet the definition of "high-value farmland" under ORS 195.300(10)(a).
30 Exhibit I includes evidence that the wind power generation facility (the energy facility
31 and its related or supporting facilities, except the 230 kV transmission line) will impact
32 one soil type that is classified as high value farmland under ORS 215.710(b) and ORS
33 197.300(10)(a): 12B, Cantala silt loam, 1 to 7 percent slopes. These high value soils
34 constitute approximately 5% of the analysis area, or 1,477 acres. Exhibit I establishes
35 that the facility site does not include soils that qualify as high-value farmland under ORS
36 195.300(10)(b)-(f).

37 Exhibit I explains that surficial soils that underlie the proposed facility include
38 primarily Cantala silt loam and Condon silt loam. The high-value farmland soil—12B,
39 Cantala silt loam, 1 to 7 percent slopes—is located primarily along or near the tops of
40 ridges, and is interspersed with other soil types that are not high-value farmland soils.
41 The Cantala silt loam does not qualify as high-value farmland when present on slopes
42 steeper than 7 percent. The Cantala silt loam and Condon silt loam soils are formed in
43 the loess that caps the plateau. The steeper canyon walls are underlain primarily by the

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1 Lickskillet extremely stony loam and Wrentham-Rock outcrop complex. The stony loam
2 soils typically form on slopes and in areas of shallow basalt rock.¹⁰⁰

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

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

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

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

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

¹⁰⁰ Final ASC, Section K.5, p. 21

¹⁰¹ Final ASC, Section K.5, p. 21

¹⁰² Final ASC, Section K.5, p. 22

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1 locating the proposed facility on nearby non-high-value soils, in compliance with
2 WCLUDO Section 3.210(J)(17)(2).

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

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

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

23 The applicant is responsible for restoring agricultural land to its prior condition
24 following construction and improvement activities. ASC Exhibit W describes the
25 restoration actions the applicant proposes to restore agricultural areas disturbed by the
26 construction of the proposed facility, which include backfilling disturbed areas with
27 native soil and returning those areas to original grade. For example, after the need for
28 staging areas or other construction-related activities ends, the temporarily disturbed areas
29 would be restored to their original contours, topsoil spread in these areas, and the areas
30 revegetated or prepared for planting of wheat or barley, or for use as range land.¹⁰⁴
31 Pursuant to Council rules, the applicant is required to provide financial assurance in the
32 form of a bond or letter of credit in an amount sufficient to restore the property to a
33 useful, non-hazardous condition, and is required, pursuant to OAR 345-027-0020(9) to
34 retire the facility according to the final retirement plan approved by the Council, as
35 described in OAR 345-027-0110. The Department Council finds that, as proposed, and
36 subject to compliance with the conditions discussed in Section IV.F (Retirement and
37 Financial Assurance), the applicant can satisfy this standard. (See mandatory site
38 certificate Conditions IV.F.2.1 [per OAR 345-027-0020(8)], IV.F.2.3 [per OAR 345-027-
39 0020(7)], IV.F.2.4 [per OAR 345-027-0020(9)], and Condition IV.F.2.2.)

40 **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

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1 *b. For arable lands, meaning lands that are cultivated or suitable for cultivation,*
2 *including high-value farmland soils described in ORS 195.300(10), it must be found that:*

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

9 The facility site is comprised of arable lands, which are being used primarily for the
10 cultivation of dry-land wheat and grazing ; therefore the requirements of this section
11 apply to the proposed facility. The applicant proposes to construct roads only as
12 necessary to provide access to and along the turbine corridors; existing roads will be used
13 where feasible. Separate “crane paths” would not be used during facility construction.
14 Instead, the access road system would be used, with 10-foot shoulders temporarily
15 provided on either side of the 20-foot graveled access roads during facility construction.
16 Impacts to agricultural operations would be minimized by avoiding construction of
17 improvements that could interfere with the passage of large farm equipment, such as
18 overhead transmission lines, except where site-specific conditions require they be above-
19 ground. As proposed, any above-ground collector lines placed through or around
20 cultivated fields or farm roads would have sufficient ground clearance to avoid blocking
21 or interfering with farm equipment.¹⁰⁵ The Council finds that, as proposed, and subject to
22 compliance with Conditions IV.D.2.6 and IV.D.2.7 to ensure the facility is designed to
23 reduce adverse impacts on farming practices and minimize the use of agricultural land,
24 the facility can satisfy this standard.

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

31 Soil erosion will be prevented or mitigated as provided in the National Pollutant
32 Discharge Elimination System (NPDES) 1200-C permit and associated Erosion and
33 Sediment Control Plan (ESCP), which satisfy the requirement for a soil and erosion
34 control plan.¹⁰⁶ The Council finds that, subject to compliance with these permit and plan
35 requirements and with Condition IV.C.2.1 (See Section IV.C, Soil Protection) which
36 requires the permit and plan, the facility, as proposed, can satisfy this standard.

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

43 In order to ensure construction, maintenance and retirement activities do not result in
44 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.

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1 existing and new roads. No separate crane paths are proposed. ASC Exhibit I, Sections
2 I.4 (identification and assessment of impacts to soils) and I.5 (Description of Proposed
3 Mitigation Measures) address the potential for soil compaction that could reduce the
4 productivity of soil for crop production. Exhibit W addresses retirement of the facility,
5 and includes removal of turbines and any roads not wanted by the landowner. Turbine
6 pads will be removed to a depth of three feet below grade. Soils will be restored to
7 farmable condition in areas that will be under cultivation.¹⁰⁷

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

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

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

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

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

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

41 **WCLUDO Section 4.070 : General Exceptions to Building Height Requirements**

42 *Necessary roof structures housing elevators, stairways, tanks, fans and ventilators and*
43 *towers, steeples, flagpoles, smokestacks, silos, grain elevators, energy facilities and*
44 *commercial energy facilities, water tanks and skylights and fire or parapet walls may be*

¹⁰⁷ Final ASC, Section K.5, pp. 23-24

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1 *erected above the height limits of the zone in which they are located provided no usable floor*
2 *space is provided in such structures above the required height limits. Transmission towers*
3 *over 200 feet in height require a Conditional Use Permit.*

4 The O&M building is only structure proposed to be constructed with usable floor
5 space to serve the facility. It is proposed to be a single-story structure and will not
6 exceed 35 feet in height. The facility's other structural components are exempt from the
7 height standards because no usable floor space is proposed. Transmission towers are
8 proposed to be approximately 70 feet high, below the 200-foot height threshold for
9 conditional use permit requirement.¹⁰⁸ The Council finds that, as proposed, the facility
10 will satisfy this standard.

11 **WCLUDO Chapter 5: Conditional Use Review**

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

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

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

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

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

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

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

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

¹⁰⁸ Final ASC, Section K.5, p. 25

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1 immediate vicinity of the strings will be necessary. Since the farming in the area is dry
2 land farming, irrigation patterns will not be affected.¹⁰⁹

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

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

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

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

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

¹⁰⁹ Final ASC, Section K.5, p. 26

¹¹⁰ Final ASC, Section X.2.2, p. 4

¹¹¹ SRW-0133

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1 As proposed, the facility will not have an adverse impact on public facilities in
2 Wasco County. ASC Exhibit U identifies public services and utility providers within a
3 30-mile radius of the facility for information on existing conditions and potential
4 significant adverse impacts on their ability to provide service.¹¹² The applicant provided
5 comments from the City of The Dalles Public Works Department, the City of Dufur Fire
6 and Ambulance Service, and the Wasco County Sheriff.¹¹³ in Exhibit U of the ASC. The
7 City of Dufur Fire and Ambulance Service, which would be the first responder in the
8 event of an emergency, stated that it does not have the training or equipment for rope
9 rescue operations.¹¹⁴ The applicant proposes several measures, identified in Exhibit U, to
10 address this need and to reduce the potential for fires related to the facility.¹¹⁵

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

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

27 After completion of construction, the applicant proposes to remove the temporary
28 road shoulders and restore the roads to pre-existing conditions. The 20-foot graveled
29 surface will be left to facilitate facility operations. All areas temporarily disturbed during
30 construction will be restored to their existing condition. In areas where there are no
31 existing roads to access wind turbine strings or proposed facilities, new roads will be
32 constructed to the same dimensions. Construction-related traffic may cause short-term
33 delays during large component deliveries. Delays will be temporary, with minimal
34 impact. During operation, the facility will employ fewer than 25 people and, therefore,
35 will contribute little traffic to the local road system.¹¹⁶

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

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

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

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1 During construction of the proposed facility, construction-related traffic, particularly
2 large component deliveries, may cause some short-term delays on public roads. Delays
3 will be temporary in nature and, given that the existing traffic on most roads in the
4 vicinity of the proposed facility is generally limited to area residences and farmers,
5 impacts related to construction will be minimal. During operation, the proposed facility
6 will employ fewer than 25 people and will contribute very little traffic to the local road
7 system. Following construction, the proposed road bed improvements may improve
8 traffic safety.¹¹⁷ The Department finds that, as proposed, the facility satisfies this
9 criterion.

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

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

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

22 With regard to dust generation, the applicant proposes to obtain an NPDES
23 Stormwater 1200-C Permit, which requires the development and implementation of an
24 erosion and sediment control plan (ESCP) and the use of best management practices to
25 minimize the potential for erosion, including windblown erosion. Best management
26 practices include using hay bales or other similar forms of containment, watering to
27 prevent windblown erosion in disturbed areas, covering of stockpiled soil, and immediate
28 revegetation. Best available practices will be implemented to prevent weed infestation
29 and erosion of the stockpiled soils, developed in consultation with the landowners and the
30 local weed control authority.

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

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

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

¹¹⁷ Final ASC, Section K.5, p. 28

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1 Exhibit P identifies and categorizes all fish and wildlife habitats within the habitat
2 analysis area. No Category 1 habitat has been identified in the analysis area. The bulk of
3 the habitat within the analysis area is identified as Categories 3, 4, and 6. The majority of
4 permanent impacts would be to Category 6 –developed land, accounting for
5 approximately 50 percent of the permanently affected habitat. Temporary impacts will
6 occur primarily on Category 6 habitat, accounting for approximately 52 percent of the
7 temporary impact to habitat areas. Exhibit P included a monitoring plan to be developed
8 in coordination with ODFW to evaluate actual impacts generated by the proposed
9 facility.¹¹⁸ The information presented in Exhibit P formed the basis for the Wildlife
10 Monitoring and Mitigation Plan and Habitat Monitoring Plan developed by the
11 Department and included as Exhibits 2 and 3, respectively, to this Final Order.

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

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

24 The facility will have little impact to air, water and land resources. As proposed, the
25 facility will not create a new pollution source, and, as previously discussed, traffic
26 associated with the proposed facility will be minimal. The proposed facility will not
27 significantly increase the amount of exposed soils in the site area and will have little or
28 no impact to air quality. As explained in Exhibit P, any soils exposed during construction
29 will be revegetated to prevent soil erosion from wind and rain.¹¹⁹

30 All construction of the facility will be conducted pursuant to a DEQ issued NPDES
31 (1200-C) Permit, which requires best management practices to minimize the potential for
32 erosion. Temporary impacts to land within the analysis area will occur with the creation
33 of the staging areas and excavation for underground collector lines. To minimize soil
34 exposure during installation of the collector lines, and as provided for in the required
35 NPDES permit, only as much trench will be opened each day as can be excavated and
36 backfilled; in no case will a trench remain open for more than the seven days.¹²⁰

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

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

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1 the areas revegetated or prepared for planting of wheat or barley, or for use as range
2 land.¹²¹

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

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

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

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

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

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

¹²¹ Final ASC, Section K.5, p. 30

¹²² Final ASC, Section K.5, p. 30

¹²³ Final ASC, Section K.5, p. 31

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1 Deschutes River and associated hiking and multi-use trails, but will not dominate
2 views.¹²⁴

3 FOCG asserts that the “appropriate metric for evaluating this impact is the BLM’s
4 Visual Resource management system and BLM VQO’s [Visual Quality Objectives] and
5 ORVs [Outstandingly Remarkable Values] for the Lower Deschutes Wild and Scenic
6 River. Using these measuring sticks to evaluate impacts, it is likely that the project
7 would detract from the visual character of the area.”¹²⁵ As discussed above, no portion of
8 the facility site is proposed to be located on federal land. FOCG does not explain or
9 establish how BLM’s standards are relevant to or are the “appropriate metric” to evaluate
10 compliance with this local standard for land not located on property subject to BLM’s
11 jurisdiction. The County does not otherwise employ this standard, nor has it indicated
12 that this standard would be appropriate in this case. As the county explains, WCLUDO
13 5.020(H) “does not require that there be no visual impact from the energy facility, but
14 that any impact not be significant.” The county further explains, that “since none of the
15 proposed structures occur within the Lower Deschutes River Wild and Scenic River or
16 the Deschutes River Recreation Lands, no further analysis is required.”

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

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

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

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

¹²⁴ Final ASC, Section R.5.3.2, pp. 8-9

¹²⁵ SRW-0133

¹²⁶ Final ASC, Section S.1, p. 1

¹²⁷ Final ASC, Attachment S-1

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

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

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

16 The proposed facility is located in an area where the predominant land uses are
17 winter wheat cultivation and grazing. There are no forest operations in the analysis area.
18 Construction of the proposed facility is not anticipated to substantially increase the cost
19 of farming and grazing operations because the facility components, such as the turbines
20 and access roads, will be located to limit, to the greatest degree practicable, changes in
21 planting and harvesting patterns. There will be minimal impacts to grazing operations
22 because cattle will be able to roam freely around the turbines located in the fields. The
23 applicant has also provided a farmer survey that requested information on whether the
24 proposed facility would have an impact on their operations. The majority of local
25 farmers responded that they will be able to maneuver around the turbine strings and
26 transmission towers and across the gravel access roads, although minor changes in
27 sowing and harvesting patterns in the immediate vicinity of the strings will be
28 necessary.¹²⁸

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

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

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

¹²⁸ Final ASC, Section K.5, pp. 32-33

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1 addition, gravel access roads will be available for the farmers to use to move equipment,
2 which they identified as a critical component in how they manage their land. Very little
3 land will be removed from production, accounting for 0.3 percent of the analysis area,
4 and no irrigation patterns will be affected due to the nature of farming operations in the
5 area. The proposed facility will not impact any forest practices because there are no
6 forest operations in the vicinity of the facility.¹²⁹

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

17 ***WCLUDO Section 5.030 – Conditions, and Section 5.040 – Revocation of Conditional Use***
18 ***Permit***

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

24 **WCLUDO Chapter 10 : Fire Safety Standards**

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

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

¹²⁹ Final ASC, Section K.5, p. 32

¹³⁰ Final ASC, Section U.5.12, p. 27

¹³¹ Final ASC, Section U.5.12, p. 27

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1 **WCLUDO Chapter 19: Standards for Energy Facilities and Commercial Energy Facilities**

2 **WCLUDO Section 19.010 Classification of Energy Facilities**

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

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

12 The 230 kV transmission feeder line is "Permitted Subject to Standards" pursuant to Section
13 19.010(A). Section 19.030(B) provides the relevant standards for the 230 kV transmission feeder
14 line, which is subject to:

15 Section 19.030(B)(1) or (B)(2) and (B)(3);

16 Section 19.040(A)(1) through (3) except as permitted by Section 10.040(A)(4);

17 Section 19.040(B) and (C); and

18 The applicable conditions of Section 19.050.

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

23 Section 19.030(C)(3)(a) and (b);

24 Section 19.030(C)(4)(b);

25 Section 19.030(C)(5) through C(8);

26 Section 19.030(F)(1) through F(6);

27 Section 19.040; and

28 The applicable conditions of Section 19.050.

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

30 **WCLUDO Section 19.030 Standards for Approval**

31 **Section 19.030(B).** *A Transmission Facility as a use Permitted Subject to Standards. A*
32 *transmission facility is a use permitted subject to standards if it complies with part*
33 *19.030(B)(1) or with parts (B)(2) and (B)(3), and the applicable conditions of section 19.050.*

34 *1. Location and Height.*

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

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

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

40 *d. The facility is less than 200 feet.*

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

10 WCLUDO Section 19.030(B)(1)(c) states that the proposed feeder line may not be
11 sited in any areas described in WCLUDO Section 19.040(A)(1) through (3). Section
12 19.040(A)(1), (2), and (3) identify areas under federal, state or local control including the
13 following:

14 *National parks, national monuments, national wildlife refuges, BLM Outstanding Natural*
15 *Areas, BLM Areas of Critical Environmental Concern, Federal Research Natural Areas,*
16 *U.S. Forest Service Special Interest Areas, Wilderness areas under the Federal*
17 *Wilderness Act and areas recommended for designation as wilderness areas pursuant to*
18 *section 603 of the Federal Land Policy Management Act of 1976, Federally designated*
19 *Wild and Scenic Rivers or any rivers recommended for designation by the National Park*
20 *Service, State of Oregon parks, waysides, refuges, wildlife management areas, and*
21 *natural area preserves, scenic waterways and adjacent lands designated pursuant to ORS*
22 *309.845, wild fish streams designated by the Oregon Department of Fish and Wildlife,*
23 *and experimental areas established by the Rangeland Resources Programs, School of*
24 *Agricultural, OSU, areas which the comprehensive plan designates as not suitable for a*
25 *given type and size of energy facility, because the area contains significant open space,*
26 *mineral resources, fish and wildlife habitat, scenic views and sites, water bodies,*
27 *wilderness, cultural, geologic, historic, botanical, research, or recreational resources*
28 *that cannot be protected from the adverse consequences of the facility.*

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

37 WCLUDO Section 19.030(B)(1)(d) identifies a transmission facility that "is less than
38 200 feet," but does not specify whether 200 feet is a height limit or the length of the
39 actual facility. However, the Section 19.030(B)(1) standards are for "location and
40 height." Similarly, WCLUDO Section 3.210(D)(13) identifies "A Transmission Facility
41 under 200 feet in height...and the applicable Subject to Standards criteria of Chapter 19.
42 It therefore appears that the 200-foot standard refers to the height of the facility, not its
43 length. The proposed towers will be wood H-frame supports up to 70 feet high spaced
44 approximately 800 feet apart, well below the 200-foot height limit.¹³² Accordingly, the
45 Council finds that, as proposed, the transmission line satisfies this standard.

¹³² Final ASC, Section K.5, p. 36

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

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

12 **3. Setbacks.**

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

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

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

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

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

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.

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1 setbacks are Goal 3 (Agricultural Lands) and Goal 13 (Energy Conservation). Goal 3
2 provides that “agricultural lands shall be preserved and maintained for farm use,
3 consistent with existing and future needs for agricultural products, forest and open space
4 and with the state’s agricultural land use policy expressed in ORS 215.243 and 215.700.”
5 OAR 660-033-0130(37) (effective January, 2009) allows wind power generation facilities
6 on agricultural lands subject to Goal 3 without a goal exception.

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

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

28 However, this does not necessarily increase energy efficiency or promote wind
29 development. That is particularly true for the subject site; downwind properties that are
30 not within the proposed facility boundary are primarily owned by the Bureau of Land
31 Management and either prohibited or unlikely to be developed with wind turbines.
32 Therefore, setback compliance does not affect the proposed facility’s compliance with
33 Goal 13. The Council finds that the proposed setback complies with the applicable
34 statewide planning goals, notwithstanding that the setback criterion provided by the
35 WCLUDO is not met for all proposed turbines, in compliance with ORS
36 469.504(1)(b)(B).¹³⁶

37 *b. The furthest horizontal extension of a WECS [Wind Energy Conversion System] or*
38 *wind measurement device (including guy wires) shall not extend into yards required in the*
39 *underlying zones or be closer than twelve feet to any major structure, or right-of-way or*
40 *easement for above-ground telephone, electrical transmission and distribution lines.*

41 Setback requirements for structures located in A-1 zoning district are identified in
42 WCLUDO Section 3.210(F)(1), which requires 200-foot setbacks from property lines for

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 stated 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.

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1 all dwellings and accessory structures within the A-1 zoning district. To comply with
2 this setback requirement, all turbines (measured from the center of the tower) must be at
3 least 350 feet from all dwellings and accessory structures to account for the length of the
4 turbine blade (approximately 150 feet blade radius plus 200-foot property line setback).
5 All turbines are proposed to comply with this requirement. The proposed met towers will
6 not have guy wires¹³⁷ and are not located near any major structure.¹³⁸ Therefore, the
7 Council finds that, as proposed, all elements of the proposed facility, including all
8 turbines, satisfy this setback requirement.

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

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

17 Final ASC, Figure X-1 identifies the locations of all existing structures within the
18 project area.¹³⁹ These structures meet the height limitation standards described in
19 WCLUDO Section 3.210(F)(2), which provides a maximum height of 35 feet for
20 structures within the A-1 zoning district. Section 3.210(C)(4)(b) requires a 30-foot
21 clearance above the tallest allowable structure, requiring a total a distance of 65 feet from
22 grade to the lowest sweep of the WECS rotor. Turbines with an 80-meter (262 feet) hub
23 height and a rotor radius of the approximately 51.5 meters (165 feet), will provide
24 approximately 28.5 meters (93 feet) of clearance from grade.¹⁴⁰ This provides the
25 clearance necessary to comply with the standard height requirement for the A-1 zone.
26 Accordingly, the Council finds that the lowest point in the sweep of the turbine blades for
27 the Summit Ridge facility satisfy the minimum height standards.

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

30 *a. Removal of tower climbing fixtures to 12 feet from the ground,*

31 *b. Installation of a locking, anti-climb device on the tower, or*

32 *c. Installation of a protective fence at least six feet tall with a locking gate.*

33 No public access to the turbines is proposed. The proposed turbine towers are smooth
34 and do not have any external fixtures that would permit climbing the tower. Each turbine
35 tower will have a locked door to prevent access from the exterior of the tower, and all
36 climbing fixtures will be enclosed inside the tower, preventing any access other than
37 operations and maintenance staff who have keys to the outside door. Access to the substation
38 and operations and maintenance facility storage area will be fenced to prevent any public
39 access. No fences are proposed around the turbines.¹⁴¹ The Council finds that as proposed,
40 the turbine towers satisfy this criterion.

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

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1 **6. Visual Effects.** *Except when the applicant demonstrates that such measures will*
2 *significantly interfere with wind access over the life of the WECS, a WECS shall be sited to*
3 *reduce visual impacts using means including, but not limited to, the following:*

- 4 *a. Setting the WECS against a visual backdrop that, because of color, texture or topography,*
5 *helps the WECS blend into its surrounding environment.*
- 6 *b. Using non-reflective materials and colors that blend into the background unless otherwise*
7 *required by the Federal Aviation Administration or Oregon State Aeronautics Division.*
- 8 *c. No advertising shall be placed on the WECS. Advertising does not include the*
9 *manufacturer's label or other signs required by law.*
- 10 *d. Setting the WECS back from scenic highways and zones containing any of the protected*
11 *areas listed in subsections 19.040(A) and (B).*

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

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

- 23 *a. "No Trespassing" signs shall be attached to any perimeter fence.*
- 24 *b. "Danger" signs shall be posted at the height of five feet on WECS towers and accessory*
25 *structures.*
- 26 *c. A sign shall be posted on the tower showing an emergency telephone number.*
- 27 *d. The manual electrical and/or overspeed shutdown disconnect switch(es) shall be clearly*
28 *labeled.*

29 The ASC includes a proposal to install signs as required by this section. All signs are
30 proposed to satisfy the size limitations and locational requirements of WCLUDO
31 3.210(F)(4).¹⁴² The Council finds that, as proposed and subject to compliance with
32 Condition IV.D.2.2, the facility satisfies this criterion.

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

35 The applicant does not propose to erect any structures that require guy wires, therefore
36 this criterion does not apply to the proposed facility.¹⁴³

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

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

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1 turbines are designed to limit public access.¹⁴⁵ The Council finds that as proposed, the
2 facility satisfies this standard.

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

5 The applicant represents that it has collected site specific wind data since 2001 and
6 based on this information has determined that the wind resources are adequate to support
7 the proposed facility.¹⁴⁶ The Council finds that the proposed facility has satisfied this
8 standard.

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

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

18 Exhibit P identifies and categorizes all fish and wildlife habitats within the habitat
19 analysis area in accordance with Oregon Department of Fish and Wildlife methodology.
20 No Category 1 habitat was found in the analysis area. The bulk of the habitat within the
21 analysis area is Categories, 3, 4, and 6. The majority of permanent impacts would be to
22 Category 6 land, which accounts for over 50 percent of habitat that will be permanently
23 affected. Temporary impacts will occur primarily on primarily Category 6 habitat as
24 well, accounting for approximately 52 percent of the temporary impact to habitat areas.
25 Mitigation for these impacts is required to be developed in consultation with the ODFW
26 and a monitoring plan will be implemented to evaluate actual impacts.¹⁴⁷

27 As described in Exhibit J, six wetlands were identified during the field investigation.
28 The proposed facility has been designed to avoid any impacts to wetlands of
29 waterways.¹⁴⁸

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

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

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

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1 This provision requires the applicant to provide a bond or other financial assurance to the
2 County to guarantee removal of the facility if the facility ceases operation. As noted in the
3 comments submitted by the County, the existing Wind Energy Development Ordinance was
4 adopted in 1985 and has not been meaningfully updated since then. The size of wind turbines
5 commonly used in commercial wind development, the rotor diameters, and the overall scale
6 of contemporary Oregon wind farms, were not foreseen by the County in 1985. Wasco
7 County recognizes these ordinances are antiquated and do not reflect current technologies.¹⁴⁹

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

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

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

25 ***Section 19.040 Additional Approval Standards for Energy Facilities and Commercial Energy***
26 ***Facilities.***

27 *A. Protected Areas. An energy facility may not be sited in the areas listed in part*
28 *19.040(A)(1) through (3) unless the facility complies with part (A)(4) below.*

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

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

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

38 *D. Compliance with the Comprehensive Plan. The facility shall comply with the applicable*
39 *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).

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1 Compliance with the WCCP is addressed below.

2 **Section 19.050 Conditions of Approval**

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

6 *A. Coordination*

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

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

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

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

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

21 *c. Written approval of development within the Oregon Scenic Waterways System is*
22 *granted by the Department of Transportation under ORS 390.800, the Energy Facility Siting*
23 *Council under ORS 469.430-469.570, or the Water Resources Department under ORS*
24 *537.130 through 537.450;*

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

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

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

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

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

42 *1. The Flood Hazard Overlay district,*

43 *2. The Geologic Hazard Overlay district,*

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

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

10 C. *Protection of Water Quality.*

- 11 1. *The development shall comply with the water quality standards for dissolved oxygen*
12 *and temperature adopted by the Oregon Environmental Quality Commission (EQC)*
13 *and codified in OAR 340-41 and shall not increase turbidity. Water quality effects of*
14 *forest operations shall comply with the Oregon Rules for Forest Practices (ORFP) and*
15 *the Forest Practices Act.*
16 2. *To the extent not inconsistent with EQC and ORFP rules, the Planning Director may*
17 *allow these standards to be exceeded for a specified short time when necessary to*
18 *accommodate essential construction, emergency, or other permitted uses and actions.*

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

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

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

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

¹⁵² Final ASC, Section K.5, p. 46

¹⁵³ Final ASC, Section K.5, p. 47

¹⁵⁴ Final ASC, Section K.5, p. 47

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1 to it. Practices to reduce or avoid erosion and sedimentation include but are not limited
2 to the following.

- 3 1. Structures and access avoid areas of steep slopes where high cuts and fills are
4 required and shall use natural contours.
- 5 2. The smallest practical area of land is to be exposed for the shortest practical
6 time during development.
- 7 3. Measures are used such as seeding and sodding, temporary use of straw or
8 fabric cover, aggregate cover, diversions authorized by state permit, sediment
9 basins, and filters.

10 The required NPDES 1200-C permit will address erosion from construction of the
11 proposed facility. The NPDES permit will require the use of best management practices
12 to minimize the potential for erosion. Best management practices will include a variety
13 of means to minimize the impacts of wind erosion. In actively farmed areas, the wheat
14 crop will protect stockpiled soil from wind erosion. In other areas, hay bales or other
15 similar containment features will be used to control wind erosion during construction of
16 the proposed facility. As needed, water from water trucks will be sprayed on disturbed
17 areas to keep wind-borne erosion losses to a minimum. After the need for the staging
18 areas ends, the staging area locations will be brought back to their original contours,
19 topsoil will be spread in these areas, and will be revegetated or prepared for planting, or
20 for use as range land.¹⁵⁵ The Council finds that, subject to compliance with the NPDES
21 1200-C stormwater permit requirements, the proposed facility satisfies this standard.

22 F. Health and Safety.

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

25 Drinking water to the proposed O&M building will be provided from an
26 exempt on-site well that will provide less than 5,000 gallons per day.¹⁵⁶ The
27 Council finds that, as proposed, the facility satisfies this standard.

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

31 During construction, portable toilets will be provided in locations near
32 construction areas and will be maintained by a local supplier.¹⁵⁷ The Council finds
33 that, as proposed, the facility satisfies this standard.

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

36 All structures are proposed to be grounded in accordance with the Oregon
37 State Electrical Specialty Code.¹⁵⁸ The Council finds that, as proposed, the
38 facility satisfies this standard.

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

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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.¹⁵⁹ The Council finds that, as proposed, the facility satisfies this standard.

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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.¹⁶⁰ The Council finds that, as proposed, the facility satisfies this standard.

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6. *Communications. The proposed facility shall not unduly 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.¹⁶¹ The Council finds that, as proposed, the facility satisfies this standard.

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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.*

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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.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.

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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.*

¹⁵⁹ Final ASC, Section K.5, p. 48

¹⁶⁰ Final ASC, Section K.5, p. 48

¹⁶¹ Final ASC, Section K.5, p. 48

¹⁶² Final ASC, Section X.2.2, p.4 and Section X3.1, pp. 5-6

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1 Several roads will be utilized during construction to deliver components and for
2 construction workers to access the site. The applicant will remove mud and debris, as
3 necessary, to maintain the safety of the public road system in conformance to this
4 standard. Some existing roads will require either resurfacing with gravel, widening to
5 accommodate construction and component delivery vehicles, or both.¹⁶³ The Council
6 finds that, as proposed, the facility satisfies this standard.

7 *G. Fish and Wildlife.*

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

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

- 20 2. *A transmission line sited adjacent to wetlands or water bodies identified as critical bird*
21 *habitat in the comprehensive plan shall comply with (a), (b), or (c) below:*

22 *a. The line is lower than the level of surrounding treetops.*

23 *b. The line is at least 50 feet from the edge of the nearest wetland or water body.*

24 *c. The line is separated from the nearest wetland or water body by topography or*
25 *substantial vegetation, does not use static or lightning wires, does use marker balls or*
26 *flags on the line, or is perpendicular to the prevailing winds.*

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

30 **Wasco County Comprehensive Plan**

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

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

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

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

¹⁶³ Final ASC, Section K.5, p. 49

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1 line to the Wasco/Sherman County line (with the exception of the stretch located within the
2 Dalles city limits); US 197 between I-84 and Dufur and from the Tygh Ridge Summit to the
3 Maupin city limits; and OR 216 between the US 26/OR 216 intersection and the US 197/OR
4 216 intersection west of Maupin. Table 7 of the WCCP identifies the scenic area in the
5 vicinity of I-84 and OR 216 as 660 feet on either side of the highway right-of-way; the scenic
6 area along US 197 in the designated scenic area corridor is any area within view of the
7 highway

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

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

14 *Outstanding scenic and recreational areas have exceptional qualities which draw visitors*
15 *from out-side the county, as well as provide local citizens with excellent recreational*
16 *opportunities. These areas are listed in Table 11.*

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

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

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

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

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

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

40 ***WCCP Section XV. Goals and Policies***

41 ***Goal 1 – Citizen Involvement***

42 *To develop and maintain a citizen involvement program that insures the opportunity for*
43 *citizens to be involved in all phases of the planning process.*

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1 The applicant has elected to have the Council make the land use decision in accordance with
2 ORS 469.504(1)(b), and therefore the Council's procedural requirements apply, rather than the
3 County's citizen involvement program. The Council's procedure for making a site certificate
4 decision is a public process. The application is a public document that has been made available at
5 libraries in Wasco County. All documents issued by the Department are public documents, most
6 of which are posted on the Department's Internet website. The Department uses information
7 meetings, direct mailing, newspaper publication and the Internet to inform the public about the
8 proceedings regarding the proposed facility. There are opportunities for public comment
9 throughout the site certificate review process. Before the Council takes final action on this site
10 certificate application, a contested case proceeding is available to address issues that were raised
11 in the public hearings process that preceded this Final Order. The Council's meetings are open to
12 the public. The Council finds that the process used to review the proposed facility satisfies the
13 WCCP, Section XV, Goal 1.

14 Goal 2 – Land Use Planning

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

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

24 Goal 3 – Agricultural Lands

25 *To preserve and maintain agricultural lands.*

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

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

29 ORS 215.283 identifies land uses permitted in exclusive farm use zones.¹⁶⁴ As it relates
30 to the proposed facility, ORS 215.283(2)(g) permits, subject to approval, "Commercial utility
31 facilities for the purpose of generating power for public use by sale." Effective January,
32 2009, "wind power generation facilities" are permitted on EFU-zoned lands under ORS
33 215.283(2)(g), pursuant to OAR 660-033-0130(37), which Wasco County has implemented
34 through WCLUDO 3.210(3)(14). The Council finds that the principal use of the facility,
35 including the wind turbines, power collection system, collector substation, met towers,
36 control system, and O&M facility constitute a use allowed under ORS 215.283(2)(g).

37 ORS 215.283(1)(c) allows "[u]tility facilities necessary for public service...but not
38 including commercial facilities for the purpose of generating electrical power for public use
39 by sale or transmission towers over 200 feet in height. A utility facility necessary for public
40 service may be established as provided in ORS 215.275." The Council finds that the 230 kV

¹⁶⁴ The WCCP 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.

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1 transmission line constitutes such a use, as allowed under ORS 215.283(1)(d), subject to the
2 standards of ORS 215.275, which the county has implemented through Section 3.210(J)(8).

3 The findings of compliance with WCLUDO 3.210(3)(14), which also demonstrate
4 compliance with OAR 660-033-0130(37), establish that the proposed wind generation facility
5 is allowed under ORS 215.283(2)(g). The findings of compliance with WCLUDO Section
6 3.210(J)(8) demonstrate that the proposed transmission line satisfies the requirements of ORS
7 215.275 and is allowed under ORS 215.283(1)(d). Accordingly, The Council finds that the
8 proposed facility satisfies WCCP, Section XV, Goal 3, Policy 1.

9 Goal 5 – Open Space, Scenic, and Historic Areas and Natural Resources

10 *To conserve open space and protect natural and scenic resources.*

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

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

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

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

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

36 The visibility analysis provided in Exhibit R and discussed in Section IV.I of this
37 Proposed Order identifies where the proposed facility components would be visible from
38 important scenic and aesthetic resources including the CRGNSA. As discussed above with
39 regard to compliance with WCLUDO 5.020(H), the visibility analysis indicates some portion
40 of the proposed facility would be visible from some locations in the eastern portion of the
41 CRGNSA. Much of the visible area identified in the visibility analysis is not publicly
42 accessible; there are limited roads and most land is held in private ownership. Modeling
43 results and field investigation indicate that the proposed facility would not be visible from I-
44 84, Historic Columbia River Highway, Rowena Plateau and Nature Conservancy Viewpoint,
45 or the Columbia River. The most likely locations from which to view the proposed facility
46 occur along Washington State Route (SR) 14 in the vicinity of Wishram, Washington.

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1 Where visible, the proposed facility would be subordinate to the landscape setting that
2 typically includes significant development such as interstate highway and rail transportation
3 corridors, electrical transmission corridors, radio and cellular towers, and urban and rural
4 development in the foreground and middleground. Given the relative amount of existing
5 encroachment in the foreground and middleground views, the proposed turbines (or portions
6 of turbines) that would likely be visible in the background, and limited opportunities to view
7 turbines, the proposed facility would result in minimal impacts to the CRGNSA.

8 FOCG challenge this finding, urging that “this analysis should be revised to explain the
9 distance along State Route 14 that the Summit Ridge project would be visible from. The
10 analysis should also explain the number of turbines that would be visible along that distance
11 and the number of turbines that would have aviation safety lights. Absent this information, it
12 is not possible to draw any conclusions regarding the likely impacts of the project on views
13 from State Route 14, a designated key viewing area within the National Scenic Area.” FOCG
14 also urge that the finding that where it is visible, the proposed facility would be subordinate
15 to the landscape setting, is a “gross mischaracterization of the nature of the views from State
16 Route 14 within the National Scenic Area.”¹⁶⁵

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

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

30 *Policy 7: Fish and Wildlife*

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

34 *-To conserve and protect existing fish and wildlife areas.*

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

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

¹⁶⁵ SRW-0133, p. 18

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1 The siting process also requires the applicant to consider and comply with the ODFW
2 Fish and Wildlife Habitat Mitigation Policy as set forth in OAR 635-415-0000 through -0025.
3 The bulk of the habitat within the analysis area is Categories, 3, 4, and 6. The majority of
4 permanent impacts will be to Category 6 – developed land, accounting for approximately
5 over 50 percent of habitat that will be permanently affected. Temporary impacts will occur
6 primarily on primarily Category 6 habitat, accounting for approximately 52 percent of the
7 temporary impact to habitat areas. Mitigation for these impacts is proposed in consultation
8 with the ODFW and will be established prior to issuance of the site certificate. Detailed
9 discussion of the facility’s compliance with the Council’s Fish and Wildlife standard is
10 included in Section IV.G of this Order. The Council finds that, subject to compliance with
11 the site certificate conditions in Section IV.G.2, the proposed facility satisfies WCCP, Section
12 XV, Goal 5, Policy 7.

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

14 As discussed previously, ASC Exhibit S identifies existing cultural and historic
15 resources in the analysis area and the potential impacts on those resources associated with
16 construction of the proposed facility. There are no historic or cultural resources listed on the
17 NRHP within the analysis area. During the archaeological survey for the proposed Facility,
18 12 prehistoric archaeological sites, 1 historic archaeological site, 22 isolated finds, and 3
19 historic buildings were documented. Ten of the prehistoric archaeological sites are
20 significant and possibly eligible for listing on the NRHP. One historic building, the Center
21 Ridge Schoolhouse, is possibly eligible for NRHP listing. The design of the proposed facility
22 will avoid these sites with a minor relocation of wind turbines within the identified corridor,
23 and should not present any impacts to identified sites. The Council finds that the proposed
24 facility satisfies the WCCP, Section XV, Goal 5, Policy 8.

25 Goal 6 – Air, Water and Land Resources Quality

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

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

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

39 Wastewater generated on-site will be limited to the O&M building, which will be
40 connected to a DEQ-approved on-site septic system. As discussed in ASC Exhibit V, no
41 industrial wastewater will be generated during operations. Impacts to land resources will
42 be limited to the permanent impacts associated with facility construction that will
43 permanently impact approximately 82 acres of A-1 zoned land. The amount of land used
44 for the facility is a very small percentage of the land within the site boundary area, and
45 the Facility components will be located to minimize impacts to existing farm operations.
46 As discussed in ASC Exhibit I and Section IV.C of this Order (Soil Protection), the

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1 applicant will be required to follow the requirements of a Revegetation and Weed Control
2 Plan that has been approved and reviewed by Wasco County.

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

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

8 *Implementation:*

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

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

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

15 As discussed above regarding compliance with WCLUDO 5.020(E) and
16 19.050(F)(7), noise from construction and operation of the proposed facility is discussed in
17 Section VI.A, Noise Control Regulations. The Council finds that, subject to compliance with
18 Conditions VI.A.2.1 and VI.A.2.2 requiring submittal of a final acoustical analysis and
19 evidence that noise easements have been obtained, the proposed facility satisfies WCCP
20 Section XV, Goal 6, Policy 4.

21 *Goal 8 – Recreational Needs*

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

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

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

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

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

39 ASC Exhibit R includes a study of the potential impacts that may occur to the scenic and
40 aesthetic resources in the vicinity of the proposed facility, and Exhibit T includes a study of the
41 potential impact to recreational areas. The visibility analysis indicates that some components of
42 the proposed facility may be visible from existing recreational sites, including limited locations

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1 within the CRGNSA and along portions of the Deschutes River and associated hiking and multi-
2 use trails. No future recreation sites where the facility would be visible have been identified.

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

10 Goal 9 – Economy of the State

11 *To diversify and improve the economy of Wasco County.*

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

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

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

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

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

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

35 The proposed facility will benefit the local economy in the short term by providing short-
36 term construction-related employment, as described in Exhibit U. Facility construction is
37 anticipated to take about seven months and employ an estimated 250 workers at peak construction
38 periods. The applicant has represented that preference will be given to local workers when
39 feasible. The Council finds that, as proposed, the facility satisfies the WCCP, Section XV, Goal
40 9, Policy 3.

41 Goal 11 – Public Facilities and Services

42 *To plan and develop a timely, orderly and efficient arrangement of public facilities and*
43 *services to serve as a framework for urban and rural development.*

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1 *Policy 1: Provide an appropriate level of fire protection, both structural and wildfire, for rural*
2 *areas.*

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

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

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

23 *Implementation:*

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

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

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

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

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

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

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

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

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

18 Goal 12 – Transportation

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

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

21 As discussed in further detail with regard to compliance with WCLUDO Section
22 5.020(C), the proposed facility will use several public roads during the facility's construction
23 and operation and, where necessary, will improve the roadbed to accommodate construction
24 equipment. There are no projected impacts to the County road system as a result of
25 construction of the proposed facility. Private roads will remain private and be used
26 exclusively by the applicant or landowner. The Council finds that, as proposed, the facility
27 satisfies the WCCP, Section XV, Goal 12, Policy 1.

28 Goal 13 – Energy Conservation

29 *To conserve energy.*

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

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

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

40 *Implementation:*

41 *A. Conversion of energy sources from non-renewable sources to renewable sources shall*
42 *be encouraged.*

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1 *B. The allocation of land and uses permitted on the land should seek to minimize the*
2 *depletion of non-renewable sources of energy.*

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

11 *Policy 5: Use of renewable energy shall be encouraged.*

12 *Implementation*

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

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

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

18 ORS 215.275 (Utility Facilities necessary for public service)

19 The 230 kV transmission feeder line that is proposed to serve the facility is a “utility
20 facility” for purposes of ORS 215.275, which may be located on EFU land only if it is
21 determined to be “necessary for public service.” WCLUDO Section 3.210(J)(8) directly and
22 fully implements ORS 215.275. The findings of compliance with WCLUDO Section
23 3.201(J)(8) also fully establish compliance with all requirements of ORS 215.275. The
24 Council finds that the proposed transmission feeder line is a “utility facility that is necessary
25 for public service” and, therefore, allowed under ORS 215.275.

26 ORS 215.283 (Uses permitted in exclusive farm use zones)

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

35 Also as explained above, the Council determines that the 230 kV transmission feeder line
36 constitutes “[u]tility facilities necessary for public service” for purposes of ORS
37 215.283(1)(c), which is permitted subject to compliance with ORS 215.275; and that the
38 findings of compliance with WCLUDO 3.210(J)(8), which also establish compliance with
39 ORS 215.275, establish that the proposed transmission feeder line is allowed under ORS
40 215.283(1)(c).

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

42 ORS 215.296 requires that a use allowed under ORS 215.283(2) must be reviewed to
43 ensure that the use will not:

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1 “(a) Force a significant change in accepted farm or forest practices on surrounding lands
2 devoted to farm or forest use; or

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

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

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

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

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

18 **IV.D.2 LAND USE: SITE CERTIFICATE CONDITIONS**

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

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

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

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

- 27 i. “No Trespassing” signs shall be attached to any perimeter fence;
28 ii. “Danger” signs shall be posted at the height of five feet on turbine towers
29 and accessory structures;
30 iii. A sign shall be posted on the tower showing an emergency telephone
31 number; and
32 iv. Manual electrical and/or overspeed shutdown disconnect switch(es) shall be
33 clearly labeled.

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

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

- 37 i. Permanent signs shall not project beyond the property line.
38 ii. Signs shall not be illuminated or capable of movement.
39 iii. Permanent signs shall describe only uses permitted and conducted on the
40 property on which the sign is located.
41 iv. Freestanding signs shall be limited to twelve square feet in area and 8 feet in
42 height measured from natural grade. Signs on buildings are permitted in a
43 ratio of one square foot of sign area to each linear foot of building frontage

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1 but in no event shall exceed 32 square feet and shall not project above the
2 building.

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

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

9 [Site Certificate Condition 6.22.b] [In accordance with WCLUDO Section 3.210(F)(4)]

10 IV.D.2.3 Except as necessary to meet the requirements of the Federal Aviation Administration to
11 warn aircraft of obstructions, the certificate holder shall design and implement a lighting
12 plan to ensure that all outdoor lighting is directed downward, limited in intensity, and is
13 shielded and hooded to prevent light from projecting onto adjacent properties, roadways,
14 and waterways. Shielding and hooding materials shall be composed of nonreflective,
15 opaque materials. [Site Certificate Condition 6.23] [In accordance with WCLUDO section 3.210(F)(4)]

16 IV.D.2.4 Prior to commencement of construction, the certificate holder shall ensure that
17 participating landowners obtain a Farm-Forest Management Easement. The landowner is
18 required to sign and record in the deed records for the county a document binding the
19 landowner, and the landowner's successors in interest, prohibiting them from pursuing a
20 claim for relief or case of action alleging injury from farming or forest practices for
21 which no action or claim is allowed under ORS 30.936 or 30.937. [Site Certificate Condition
22 5.3] [In accordance with WCLUDO section 3.210(H)]

23 IV.D.2.5 The certificate holder shall be responsible for restoring, as nearly as possible, to its
24 former condition any agricultural land and associated improvements that are damaged or
25 otherwise disturbed by the siting, maintenance, repair or reconstruction of the facility.
26 [Site Certificate Condition 6.24] [In accordance with WCLUDO Section 3.210(J)(8)(e)]

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

31 IV.D.2.7 The certificate holder shall design and construct the facility using the minimum land area
32 necessary for safe construction and operation. The certificate holder shall locate access
33 roads and temporary construction laydown and staging areas to minimize disturbance of
34 farming practices and, wherever feasible, shall place turbines and transmission
35 interconnection lines along the margins of cultivated areas to reduce the potential for
36 conflict with farm operations. [Site Certificate Condition 6.12] [In accordance with WCLUDO Section
37 3.210(J)(17)(5)]

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

43 **IV.D.3 LAND USE: CONCLUSIONS OF LAW**

44 Based on the foregoing findings, and subject to compliance with the site certificate conditions,
45 the Council finds that the proposed facility complies with all applicable substantive criteria from
46 Wasco County except WCLUDO Sections 19.030(C)(3)(a) and (F)(1)(b); and that the proposed
47 facility otherwise complies with the applicable provisions of the statewide planning goals, in

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1 accordance with ORS 469.504(1)(b)(B). The Council finds that the proposed facility complies with
2 OAR 660-033-0130(37) and with all applicable state statutes.
3

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1 **IV.E. PROTECTED AREAS [OAR 345-022-0040]**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

22 **IV.E.1 PROTECTED AREAS: FINDINGS OF FACT**

23 Exhibit L of the ASC includes the applicant's discussion of potential impacts to protected
24 areas. The analysis area for the Protected Areas standard is the area within the site boundary and
25 20 miles from the site boundary, including areas outside the state. The proposed facility would
26 not be located within any protected area designated under OAR 345-022-0040(1). The table
27 below ("Protected Areas Within 20 Miles of the Facility") shows the protected areas identified by
28 the applicant, a reference to the applicable subparagraph of OAR 345-022-0040(1), the
29 approximate distance from the site boundary, the direction of each protected area from the
30 proposed facility and the state in which each area is located.

31 The applicant has assessed the potential impacts to each of these protected areas from noise,
32 traffic, water use, wastewater disposal, and visibility of the facility components.

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PROTECTED AREAS WITHIN 20 MILES OF THE FACILITY (Source: Final ASC, Table L-1)				
Protected Area	345-022-0040(1) Subparagraph Reference	Distance (Miles)	Facility visible?	State
Botanical/Scenic Areas within Columbia Gorge ACEC ¹⁶⁶	(o)	15.8	No	OR
Columbia Hills (Horse Thief Lake) State Park	(h)	11.8	No	WA
Doug's Beach State Park	(h)	14.8	No	WA
John Day Federal Wild and Scenic River	(k)	18.4	No	OR
John Day State Scenic Waterway	(k)	18.4	No	OR
JS Burres State Recreation Site (BLM)	(h)	20.0	No	OR
Lower Klickitat Federal Wild and Scenic River	(k)	18.3	No	WA
Maryhill State Park	(h)	12.4	No	WA
Mayer State Park	(h)	18.1	No	OR
Memaloose State Park	(h)	19.8	No	WA
Tom McCall Preserve ACEC	(o)	17.4	No	OR
White River Falls State Park	(h)	9.1	No	OR
Badger Creek Wilderness Area	(c)	18.7	Limited	OR
Deschutes River State Recreation Area	(h)	9.0	Limited	OR
Heritage Landing (Deschutes) State Park	(h)	9.1	Limited	OR
John Day Wildlife Refuge	(d)	17.4	Limited	OR
White River Federal Wild and Scenic River	(k)	8.5	Limited	OR
White River State Wildlife Area	(p)	11.0	Limited	OR
Columbia Basin Agriculture Research Area	(m)	6.9	Yes	OR
Columbia Hills Natural Area Preserve	(l)	14.4	Yes	WA
Columbia River Gorge National Scenic Area	(g)	7.2	Yes	OR, WA
Deschutes Federal Wild and Scenic River	(k)	0.6	Yes	OR
Deschutes State Scenic Waterway	(k)	0.8	Yes	OR
Lower Deschutes Wildlife Area	(p)	2.0	Yes	OR

1 **Noise Impacts.** Noise generated by operation of the facility is analyzed in Exhibit X of the
 2 application. The facility is expected to comply with the DEQ noise control regulations (see the
 3 discussion at Section VI.A of this Order). Based on the noise modeling presented in Exhibit X,
 4 noise from facility operations is not expected to exceed the standard for "quiet areas."¹⁶⁷ Noise

¹⁶⁶ 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 345-035-0025 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

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1 produced during construction is exempt from the “quiet area” regulation under OAR 340-035-
2 0035(5)(g), but construction noise is not likely to result in any significant adverse impacts
3 because of the distance of the facility from most protected areas. The Council finds that noise
4 generated during construction and operation of the proposed facility would not result in a
5 significant adverse impact to any protected area.

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

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

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

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

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

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

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

43 The protected areas with the greatest potential for visual impacts are discussed further below.

important public needs such as, without being limited to, a wilderness area, national park, state park, game preserve, wildlife breeding area, or amphitheatre.

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1 Columbia River Gorge National Scenic Area (CRGNSA)

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

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

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

20 Columbia Hills Natural Area Preserve

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

25 Columbia Basin Agricultural Research Center

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

29 Lower Deschutes River Canyon

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

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.

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1 FOCG argues that the visibility of the facility from areas within the Deschutes River State
2 Scenic Waterway precludes compliance with this standard, as it relates to the Lower Deschutes
3 River Canyon. FOCG's arguments are addressed at IV.I.1.b.ii (Scenic Resources), and for the
4 reasons explained with regard to that standard, FOCG has not established that the visibility from
5 that area precludes compliance with this standard.

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

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

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

10 Based on the foregoing findings, the Council finds that the proposed facility is not located in
11 any protected area listed in OAR 345-022-0040 and that the design, construction, and operation of
12 the proposed facility are not likely to result in significant adverse impact to any protected area in
13 compliance with the Protected Areas Standard.
14

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1 **IV.F. RETIREMENT AND FINANCIAL ASSURANCE [OAR 345-022-0050]**

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

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

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

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

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

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

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

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

38 Small quantities of lubricants, vehicle fuel, and coolant might be transported over and across
39 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.

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1 significant soil contamination is unlikely.¹⁷² The applicant would drain these materials from
2 each turbine and properly dispose of fluids prior to dismantling turbines. The applicant has
3 proposed implementation of a monitoring plan to ensure proper fluid removal and recycling, to
4 the extent possible.¹⁷³ Conditions IV.F.2.3, IV.F.2.4, IV.F.2.5, and IV.F.2.6 (see Section IV.F.2)
5 are conditions required by Council rule to be included in all site certificates. These conditions
6 require the applicant to prevent the development of any conditions on the site that would
7 preclude restoration of the site and to submit a retirement plan to the Council for review and
8 approval upon cessation of construction or operations at the site.

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

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

12 OAR 345-022-0050(2) addresses the possibility that the certificate holder is unable or
13 unwilling to restore the site upon permanent cessation of construction or operation of the facility.
14 A bond or letter of credit provides a site restoration remedy to protect the State of Oregon and its
15 citizens if the certificate holder fails to perform its obligation to restore the site. The bond or
16 letter of credit must remain in force until the certificate holder has fully restored the site. The
17 applicant estimated that the total site restoration cost in 2nd quarter 2010 dollars would be
18 approximately \$5.540 million if the maximum number of 2.3-MW turbines (87) are installed at
19 the facility.¹⁷⁴ The applicant's estimate for 2.3-MW turbines from Table W-1a of the ASC is
20 reproduced below:

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

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Table W-1a: Cost Estimate for Site Restoration of 2.3 MW Wind Turbine Project Configuration

Cost Estimate Component	Quantity	Unit Cost	Extension
Disconnect electrical and ready for disassembly (per turbine)	87	\$1,010	\$87,870
Remove turbine blades, hubs and nacelles (per turbine)	87	\$10,734	\$933,858
Remove turbine towers (per net ton of steel)	16,748	\$69.25	\$1,159,764
Remove and load pad transformers (per turbine)	87	\$1,700	\$147,900
Foundation and transformer pad removal (per cubic yard of concrete)	2,897	\$32.66	\$94,619
Restore turbine pads (per turbine)	87	\$1,280	\$111,360
Met Towers			
Dismantle and dispose of met towers (per tower)	3	\$7,540	\$22,620
Substations and O&M Facility			
Dismantle and dispose of substations (each)	1	\$57,096	\$57,096
Dismantle and dispose of O&M Facility	1	\$109,934	\$109,934
Transmission Line			
Removal of 34.5 kV underground transmission line (per LF)	4,350	\$1.61	\$6,988
Removal of 230 kV transmission line (per mile)	8	\$5,380	\$43,040
Junction boxes - remove electrical to 4' below grade (each)	76	\$1,362	\$103,512
Access Roads			
Road removal, grading and seeding (per mile)	19	\$47,363	\$899,897
(Pre-existing roads to remain in place - approximately 6 miles of roads out of the project's 25 miles of access roads are pre-existing)			
Temporary Areas			
	100	\$5,704	\$570,400
Restore area disturbed during restoration work (per acre), including: laydown areas adjacent to each WTG tower; central laydown areas; areas adjacent to meteorological towers; areas adjacent to access roads for crane paths; areas adjacent to and corridors disturbed in the course of dismantling 230 kV transmission line towers; and, areas of temporary disturbance associated with each roadway turnaround required for facility restoration.			
General Costs			
Permits, mobilization, engineering, overhead, utility disconnects (unit cost)	1	\$222,221	\$222,221
SUBTOTAL			\$4,571,078
Performance Bond		1%	\$45,711
GROSS COST			\$4,616,789
Administration and Project Management		10%	\$461,679
Future Developments Contingency		10%	\$461,679
Total Site Restoration Cost			\$5,540,147
Total Site Restoration Cost (rounded to nearest \$1,000)			\$5,540,000

1

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1 The applicant used the Department's "Facility Retirement Cost Estimating Guide" (2005) to
2 estimate the site restoration costs. The applicant states that "Certain unit cost factors shown on
3 these spreadsheets were revised upwards to more adequately reflect the conditions of this
4 Facility."¹⁷⁵ Estimates were based on removal of 87 turbines and ancillary equipment; three
5 meteorological towers; one substation; one O&M facility; eight miles of 230 kV transmission
6 line; 76 junction boxes; 4,350 feet of underground line; and restoration of 19 miles of roads and
7 100 acres of temporarily impacted areas.

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

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

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

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

27 OAR 345-022-0050(2) requires the Council to decide whether the applicant has a reasonable
28 likelihood of obtaining a bond or letter of credit in a form and amount satisfactory to the Council
29 to restore the site to a useful, non-hazardous condition. Based on the Department's calculation
30 of the likely cost of site restoration, the Council finds the value of the financial assurance bond
31 or letter of credit for restoring the site of the proposed Summit Ridge facility would not exceed
32 \$6.965 million (3rd Quarter 2010 dollars) adjusted annually as described in Condition IV.F.2.1.

33 The applicant provided information about its financial capability in Exhibits D and M of the
34 application. The applicant will provide a financial assurance bond or letter of credit in a form
35 approved by the Council before beginning construction of the facility. The applicant has
36 provided a letter from Bank of America stating that it has sufficient available letter of credit
37 capacity to support a request for a letter of credit in the amount of \$9 million.¹⁷⁶ The letter does
38 not constitute a firm commitment from the bank to issue the letter of credit, but it is evidence of
39 a reasonable likelihood the applicant could obtain the necessary financial assurance.

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

¹⁷⁵ Final ASC, Section W.5, p.3

¹⁷⁶ Final ASC, Attachment M-2

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1 statutes, Council rules and site certificate conditions. In addition, the Council requires that the
2 surety seek Council approval before commencing construction, operation or retirement
3 activities. These requirements are included in Condition IV.F.2.2.

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

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

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

10 IV.F.2.1 Before beginning construction, the certificate holder shall submit to the State of Oregon
11 through the Council a bond or letter of credit in the amount described herein naming the
12 State of Oregon, acting by and through the Council, as beneficiary or payee. The initial
13 bond or letter of credit amount is either \$6.965 million (in 3rd Quarter 2010 dollars), to
14 be adjusted to the date of issuance as described in (b), or the amount determined as
15 described in (a). The certificate holder shall adjust the amount of the bond or letter of
16 credit on an annual basis thereafter as described in (b).

- 17 (a) The certificate holder may adjust the amount of the bond or letter of credit based
18 on the final design configuration of the facility and turbine types selected. Any
19 revision to the restoration costs should be adjusted to the date of issuance as
20 described in (b), and is subject to review and approval by the Department.
- 21 (b) The certificate holder shall adjust the amount of the bond or letter of credit, using
22 the following calculation and subject to approval by the Department:
- 23 i. Adjust the Subtotal component of the bond or letter of credit amount
24 (expressed in 3rd Quarter 2010 dollars) to present value, using the U.S.
25 Gross Domestic Product Implicit Price Deflator, Chain-Weight, as
26 published in the Oregon Department of Administrative Services "Oregon
27 Economic and Revenue Forecast" or by any successor agency (the
28 "Index") and using the 3rd Quarter 2010 index value and the quarterly
29 index value for the date of issuance of the new bond or letter of credit. If
30 at any time the Index is no longer published, the Council shall select a
31 comparable calculation to adjust 3rd Quarter 2010 dollars to present value.
 - 32 ii. Add 1 percent of the adjusted Subtotal (i) for the adjusted performance
33 bond amount to determine the adjusted Gross Cost.
 - 34 iii. Add 10 percent of the adjusted Gross Cost (ii) for the adjusted
35 administration and project management costs and 10 percent of the
36 adjusted Gross Cost (ii) for the adjusted future developments contingency.
 - 37 iv. Add the adjusted Gross Cost (ii) to the sum of the percentages (iii) and
38 round the resulting total to the nearest \$1,000 to determine the adjusted
39 financial assurance amount.
- 40 (c) The certificate holder shall use a form of bond or letter of credit approved by the
41 Council.
- 42 (d) The certificate holder shall use an issuer of the bond or letter of credit approved
43 by the Council.
- 44 (e) The certificate holder shall describe the status of the bond or letter of credit in the
45 annual report submitted to the Council required by Condition VII.4.

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

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

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

13 IV.F.2.3 The certificate holder shall prevent the development of any conditions on the site that
14 would preclude restoration of the site to a useful, non-hazardous condition to the extent
15 that prevention of such site conditions is within the control of the certificate holder.
16 [Site Certificate Condition 14.3] [Mandatory Condition OAR 345-027-0020(7)]

17 IV.F.2.4 The certificate holder must retire the facility in accordance with a retirement plan
18 approved by the Council if the certificate holder permanently ceases construction or
19 operation of the facility. The retirement plan must describe the activities necessary to
20 restore the site to a useful, non-hazardous condition, as described in OAR 345-027-
21 0110(5). After Council approval of the plan, the certificate holder must obtain the
22 necessary authorization from the appropriate regulatory agencies to proceed with
23 restoration of the site.
24 [Site Certificate Condition 14.4] [Mandatory Condition OAR 345-027-0020(9)]

25 IV.F.2.5 The certificate holder is obligated to retire the facility upon permanent cessation of
26 construction or operation. If the Council finds that the certificate holder has permanently
27 ceased construction or operation of the facility without retiring the facility according to a
28 final retirement plan approved by the Council, as described in OAR 345-027-0110, the
29 Council shall notify the certificate holder and request that the certificate holder submit a
30 proposed final retirement plan to the Department within a reasonable time not to exceed
31 90 days. If the certificate holder does not submit a proposed final retirement plan by the
32 specified date, the Council may direct the Department to prepare a proposed final
33 retirement plan for the Council's approval.
34 [Site Certificate Condition 14.5] [Mandatory Condition OAR 345-027-0020(16)]

35 IV.F.2.6 Upon the Council's approval of the final retirement plan, the Council may draw on the
36 bond or letter of credit submitted per the requirements of Condition IV.F.2.1 to restore
37 the site to a useful, non-hazardous condition according to the final retirement plan, in
38 addition to any penalties the Council may impose under OAR Chapter 345, Division 29.
39 If the amount of the bond or letter of credit is insufficient to pay the actual cost of
40 retirement, the certificate holder shall pay any additional cost necessary to restore the site
41 to a useful, non-hazardous condition. After completion of site restoration, the Council
42 shall issue an order to terminate the site certificate if the Council finds that the facility has
43 been retired according to the approved final retirement plan.
44 [Site Certificate Condition 14.6] [Mandatory Condition OAR 345-027-0020(16)]
45
46

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1 **IV.F.3 RETIREMENT AND FINANCIAL ASSURANCE: CONCLUSIONS OF LAW**

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

8 Based on these findings and the site certificate conditions described herein, the Council concludes
9 that the proposed facility complies with the Retirement and Financial Assurance Standard.

10

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1 **IV.G. FISH AND WILDLIFE HABITAT [OAR 345-022-0060]**

2 **OAR 345-022-0060**

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

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

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

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

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

17 If impacts are unavoidable, the mitigation goal for Category 2 habitat is to have no net loss of either
18 habitat quantity or quality and provision of a net benefit of habitat quantity or quality. The Council
19 interprets this to mean that both habitat quantity and quality must be preserved and either habitat quantity
20 or habitat quality must be improved. To achieve this goal, impacts must be avoided or unavoidable
21 impacts must be mitigated through “reliable in-kind, in-proximity” habitat mitigation to achieve no net
22 loss of either pre-development habitat quantity or quality.¹⁷⁸ In addition, a net benefit of habitat quantity
23 or quality must be provided.

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

27 The mitigation goal for Category 3 habitat is to have no net loss of either habitat quantity or quality.
28 The Council interprets this to mean that both habitat quantity and quality must be preserved. The goal is
29 achieved by avoidance of impacts or by mitigation of unavoidable impacts through “reliable in-kind, in-
30 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.”

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1 *"Habitat Category 4" is important habitat for fish and wildlife species.*

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

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

10 The mitigation goal for Category 5 habitat is to provide a "net benefit in habitat quantity or quality."
11 ODFW interprets the "net benefit" goal in the context of Category 5 as requiring "some improvement in
12 habitat quantity or quality." To clarify the "net benefit" goal, ODFW has advised: "The improvement in
13 habitat quantity or quality achieved need not rise to the level of improvement required to meet a goal of
14 'no net loss' (i.e. the level required or recommended in the Mitigation Policy for Habitat Categories 2, 3,
15 and 4)."¹⁷⁹ The goal is achieved by avoidance of impacts or by mitigation of unavoidable impacts
16 through "actions that contribute to essential or important habitat."¹⁸⁰

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

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

21 **IV.G.1 FISH AND WILDLIFE HABITAT: FINDINGS OF FACT**

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

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

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

31 The applicant provided information about compliance with the Habitat Standard in Exhibit P of
32 the application. As established by the Project Order, the study area for potential fish and wildlife
33 habitat impacts is the area within the site boundary and the area within ½-mile of the site boundary.¹⁸¹
34 To identify the habitat characteristics of the proposed Summit Ridge site, Northwest Wildlife
35 Consultants, Inc (NWC) performed initial habitat delineation with global positioning system
36 equipment using 1-meter orthophotos.¹⁸² NWC confirmed these delineations in May and June 2009
37 and made necessary corrections at that time. Wildlife habitat subtypes within the proposed site
38 boundary were delineated based on differences in vegetation type and structure and were designed to

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

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1 be consistent with the six habitat categories described above.¹⁸³ A total of 5,515.47 acres of habitat
2 were categorized within the site boundary.

3 **Category 1 Habitat.** No Category 1 habitat was identified by the applicant or ODFW within the
4 proposed project area.¹⁸⁴

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

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

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

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

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

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

¹⁸³ Final ASC, Attachment P-1, p. 6

¹⁸⁴ Final ASC, Table P-3

¹⁸⁵ Final ASC, Section P.3.1.2, p. 13

¹⁸⁶ Final ASC, Section P.3.1.2, pp. 13-14

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1 plant communities. Older plantings (>10 years) may have significant cover of native species such as
2 rubber rabbitbrush, lupine and common yarrow. Invasive grasses and forbs including cheatgrass,
3 bulbous bluegrass, prickly lettuce, and tall tumble mustard were noted on some younger, less-
4 established plantations and in harsher areas within older plantings. Revegetated grasslands,
5 especially older, well-established plantings with some shrub cover, can have moderate wildlife use
6 value, offering nest, cover, and forage habitat for some grassland birds, including western
7 meadowlark, vesper sparrow, grasshopper sparrow, savannah sparrow, and Brewer's sparrow, as well
8 as year-round cover and forage for northern harriers, small mammals, and mule deer.¹⁸⁷

9 The remaining Category 3 habitat is split between the Rabbitbrush/buckwheat shrub-steppe
10 (similar to the type described above in the discussion of Category 2 habitat) and native perennial
11 grasslands. Native perennial grassland occurs throughout the lease area on moderate to relatively
12 steep canyon slopes. The ecological condition of these grasslands is generally poor to fair with
13 localized remnant patches that are in good to excellent condition. Native perennial grasslands are
14 characterized by relatively consistent, high cover of the taller stature bluebunch wheatgrass and
15 shorter stature Sandberg's bluegrass. Some areas have apparently been subjected to localized and
16 sparse supplementary seeding with the non-native species intermediate wheatgrass and crested
17 wheatgrass. Native grasslands may provide important, high-quality nesting, cover, and foraging
18 habitat for numerous bird and small mammal species.¹⁸⁸

19 Riparian shrubland/woodland (about four acres) and some small ponds make up the remaining
20 fraction of the Category 3 habitat. The ponds appear to have been created as domestic livestock water
21 sources by forming earthen barriers in the bottoms of draws. While man-made, these water sources
22 are an important late-season resource for many wildlife species and are often key stopover locations
23 for migrating passerines and migrating and resident bats.¹⁸⁹

24 The riparian shrubland/woodland subtype is confined to the narrow bottoms of draws usually
25 having limited seasonal water. The most common vegetation elements here are riparian shrub species
26 such as rose, chokecherry, blue elderberry, willows, pacific serviceberry, and oceanspray. This type
27 is closely associated with, and often intermixed with, the riparian woodland habitat type. These
28 habitats, while very limited in area, provide important foraging, nesting, and cover for both bats and
29 residential and migratory birds.¹⁹⁰

30 **Category 4 Habitat (28.5% of total area).** There are approximately 1,600 acres of Category 4
31 habitat present on the site, comprised of two subtypes identified as "old field" and "exotic annual"
32 grassland. The old field subtype is represented by formerly cultivated areas that have been
33 abandoned and are naturally revegetating. These areas include a minor component of native species,
34 but are primarily occupied by invasive species. These areas offer marginal foraging habitat for
35 common species such as horned lark and western meadowlark and would likely require significant
36 effort to be restored to native-like habitat.¹⁹¹

37 Exotic annual grasslands within the lease area have developed as the result of past agricultural
38 disturbance and/or intensive domestic livestock use, often compounded by the effects of wildfire.
39 These areas are colonized primarily by non-native, invasive species. Significant populations of an
40 Oregon "B List" Noxious Weed, broadleaf pepperweed (*Lepidium latifolium*), were noted along
41 Summit Ridge Road, in the center of the lease area. Ecological disruption within these exotic-

¹⁸⁷ Final ASC, Section P.3.1.2, pp. 11-12

¹⁸⁸ Final ASC, Section P.3.1.2, pp. 12-13

¹⁸⁹ Final ASC, Section P.3.1.2, p. 14

¹⁹⁰ Final ASC, Section P.3.1.2, p. 14

¹⁹¹ Final ASC, Section P.3.1.2, p. 11

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1 dominated communities is so severe that recovery of native plant communities is not likely to occur
2 naturally. Wildlife use value within these areas is generally minimal, although annual invasive
3 grasses may have forage value early in the season.¹⁹²

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

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

17 **IV.G.1.a.ii. Plants and Wildlife within the Project Analysis Area**

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

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

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

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

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1 The applicant engaged NWC to conduct plant and wildlife surveys at the proposed Summit Ridge
2 site. In June 2009, NWC performed special-status plant and wildlife surveys along the proposed
3 turbine strings, in addition to a bat inventory performed in July, August and September 2009. NWC
4 performed special-status plant and wildlife surveys for the proposed transmission line area in May
5 2010. These surveys identified eight special status avian species and up to seven special status
6 mammal species. No special status plant species were detected in the project area. The avian species
7 identified were bald eagle, ferruginous hawk, Swainson's hawk, loggerhead shrike, long-billed
8 curlew, grasshopper sparrow, and golden eagle. In addition, NWC detected yellow-breasted chat, a
9 federal species of concern, during surveys of the proposed transmission corridor.²⁰¹ Mammal species
10 detected were white-tailed jackrabbit, pallid bat, hoary bat, silver-haired bat, Western small-footed
11 myotis, and either California myotis or Yuma myotis, or both.²⁰²

12 NWC conducted avian use surveys in spring and summer 2005 and in winter, spring, summer and
13 fall of 2009, completing all proposed avian use surveys. NWC also performed raptor nest surveys in
14 May 2009 and May 2010 for the proposed project site and transmission line area, respectively. A
15 grassland bird displacement study was also conducted at the request of ODFW to begin to assess
16 whether grassland birds are displaced by construction and operation of wind generation facilities.²⁰³

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

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

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

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

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Sensitive Wildlife Species Observed		
Species	Federal Status	State Status
Birds		
Ferruginous hawk (<i>Buteo regalis</i>)	Species of Concern (SoC) and Birds of Conservation Concern	Sensitive – Critical (SC)
Bald eagle (<i>Haliaeetus leucocephalus</i>)	Birds of Conservation Concern, Bald and Golden Eagle Protection Act	State Threatened (ST)
Swainson's hawk (<i>Buteo swainsoni</i>)	None	State Sensitive – Vulnerable (SV)
Loggerhead shrike (<i>Lanius ludovicianus</i>)	BCC	SV
Long-billed curlew (<i>Numenius americanus</i>)	BCC	SV
Grasshopper sparrow (<i>Ammodramus savannarum</i>)	None	SV
Golden eagle (<i>Aquila chrysaetos</i>)	Birds of Conservation Concern, Bald and Golden Eagle Protection Act	None
Yellow-breasted chat (<i>Icteria virens</i>)	SoC	None
Mammals		
White-tailed jackrabbit (<i>Lepus townsendii</i>)	None	SV
Pallid bat (<i>Antrozous pallidus pacificus</i>)	SoC	SV
Hoary bat (<i>Lasiurus cinereus</i>)	None	SV
Silver-haired bat (<i>Lasionycteris noctivagan</i>)	SoC	SV
Small-footed myotis (<i>Myotis ciliolabrum</i>)	SoC	None
Yuma myotis ²⁰⁴ (<i>Myotis yumanensis</i>)	SoC	None

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”).²⁰⁵ 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

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Habitat Impacts			
Category and Habitat Description	Acres Within Survey Corridors	Temporary Impact (Acres)	Permanent Impact (Acres)
Category 1 (None found)			
Category 2			
Big Sagebrush Shrub-Steppe	69.62	0.37	0.43
Subtotal	69.62	0.37	0.43
Category 3			
Revegetated Grassland	703.23	18.00	11.08
Native Perennial Grassland	406.13	6.89	2.96
Riparian Shrublands/Woodlands	4.23	0	0
Rabbitbrush/Buckwheat Shrub-Steppe	417.6	3.34	3.39
Surface Water (Pond)	0.17	0	0
Subtotal	1,531.36	28.03	17.43
Category 4			
Developed (Old Agricultural Field)	57.09	0.67	0.63
Exotic Annual Grassland	1,517.16	19.09	18.26
Subtotal	1,574.25	19.76	18.89
Category 5 (None found)			
Category 6			
Developed Dryland Wheat	2,298.43	35.05	37.75
Developed Farmyard/Residence	3.17	0	0
Developed Roadway	38.64	16.31	5.52
Subtotal	2,340.24	51.36	43.27
Total Area	5,515.47	99.52	82.02

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

²⁰⁸ Final ASC, Table P-3

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1 The use of laydown areas during construction, widening of roads, trenching for underground
2 collector lines and other ground-disturbing construction activities will result in temporary
3 impacts. The applicant estimates that temporary impacts will affect 48.16 acres of “important” or
4 “essential” wildlife habitat (Categories 2 through 4). The applicant estimates that temporary
5 disturbance of Category 6 habitat is estimated to affect 51.36 acres. The applicant’s total estimate
6 of temporarily impacted areas for all habitat categories is 99.52 acres.²⁰⁹ Under Condition
7 IV.G.2.1, the certificate holder must provide to the Department a description of the final design
8 layout of facility components and an assessment of the affected habitat before beginning
9 construction. The actual habitat impacts will then be determined according to the final layout.

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

17 In addition to direct habitat disturbance, potential impacts to wildlife include fatalities or
18 injuries as a result of incidental strikes by construction equipment. Because large construction
19 equipment, such as cranes, will be stationary move slowly across the site for much of the time,
20 there is likely to be a low risk of avian and bat fatalities from such equipment.²¹⁰ There could be
21 an increased risk of avian fatalities from destruction of nest sites for ground-nesting species,
22 unless nesting habitat is avoided during construction. Construction will increase the volume of
23 truck and small vehicle traffic on roads throughout the site, increasing the risk that vehicles could
24 strike wildlife resulting in injuries or death.²¹¹ Construction activity and noise could cause
25 wildlife to avoid nearby habitat areas and could affect breeding and fledging success.

26 In May 2009, 23 active raptor nests were identified within the proposed Summit Ridge site
27 boundary and a 2-mile buffer outside the site boundary; in May 2010, four active raptor nests
28 were identified within a one-mile corridor centered on the proposed transmission line location.²¹²
29 The raptor nest survey performed in 2009 for the proposed project site found a raptor nest density
30 of 0.24 nests per square mile. This density is slightly lower than the average density (0.26²¹³)
31 surveyed at comparable wind projects located in the Columbia Plateau Ecoregion.²¹⁴ If
32 construction activities are scheduled to occur during the sensitive breeding season for raptors,
33 construction noise and human activity near active nests could adversely affect raptor nesting or
34 fledging success.

35 ***IV.G.1.b.ii. Operation Impacts***

36 There is substantial data on avian and bat mortality at operating wind facilities in the
37 Columbia Plateau Ecoregion, including data for 12 wind projects of 25 MW or greater.²¹⁵ The

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

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1 applicant reviewed this data for information on mortality for the species identified at the Summit
2 Ridge site.

3 **Birds.** Passerines, often referred to as songbirds, have been the most abundant avian fatality
4 at wind projects in the Columbia Plateau Ecoregion, comprising >65% of the fatalities overall.²¹⁶
5 Passerines include dozens of species, which generally outnumber other groups (such as raptors),
6 thus their collision rate may not be out of proportion to their overall relative abundance in the
7 landscape. A review of avian fatalities at eight new generation projects in the west and Midwest
8 showed that most fatalities are of horned lark (29.6%), followed by sparrows (13.8%), warblers
9 (9.2%), upland game birds (8.8%), and <5% for other groups of birds. The overall fatality rate
10 for birds was approximately three fatalities/MW/yr in the US. Estimates of passerine fatalities
11 observed at some newer generation wind power projects in Washington have ranged from
12 approximately 0.63–2.98 birds/turbine/year, although two recently studied wind power facilities
13 in Oregon (for the Klondike II and Leaning Juniper projects) demonstrated fatality rates of 4.46
14 birds/turbine/year and 9.13 birds/turbine/year.²¹⁷

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

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

32 **Raptors.** Facilities constructed with newer generation wind turbines cause fewer raptor
33 fatalities than earlier generation facilities, such as the Altamont Pass project in California, which
34 experienced a raptor fatality rate almost 25 times greater than eight new generation wind projects
35 in the midwest and west.²²¹ Although raptor fatality numbers are lower for newer turbine designs
36 in general, it appears that there is a correlation between avian use metrics from pre-construction
37 surveys and raptor fatalities during post-construction surveys.²²²

38 Overall raptor nest density within the 2009 survey area for the Summit Ridge facility
39 (turbines plus a 2-mile buffer) was 0.24/mi² (not including turkey vulture and longeared owl,

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

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1 0.01/mi² each, for purposes of comparison), which is roughly equivalent to the average of ten
2 other wind projects in the region (0.26/mi²).²²³

3 Most of the active nests identified in the Summit Ridge study area were greater than ¼ mile
4 from proposed turbines and permanent access roads. Three active nests were within ¼ mile of
5 proposed turbines: one each of red-tailed hawk (1,260 feet from proposed turbines), turkey
6 vulture (1,097 feet from proposed turbines), and common raven (482 feet from proposed
7 turbines). Four inactive, large nests that might have been constructed by golden eagles were also
8 identified; these are 3,681 feet (nest in locust tree), and 10,129 feet, 4,915 feet, and 1,017 feet
9 (cliff nests) from the nearest proposed turbines.²²⁴

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

24 Other diurnal raptor species at risk for collision with turbines at the proposed Summit Ridge
25 facility based on avian use surveys at the proposed site and history of collision at other Columbia
26 Plateau sites include rough-legged hawk, northern harrier, prairie falcon, and Cooper's hawk,
27 among others.²³¹ Owl species which may be found as casualties based on nest surveys and
28 collision history at other Columbia Plateau sites include short-eared owl, barn owl, great-horned
29 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

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1 The applicant analyzed impacts on special status raptor species, including golden eagle, bald
2 eagle, ferruginous hawk and Swainson's hawk. These species were all identified to be at low or
3 very low risk of collision; collision fatalities are not expected to have a significant impact on
4 populations of these species.²³³

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

14 In commenting²³⁸ on the application, USFWS recommended that Lotus Works prepare an
15 Avian and Bat Protection Plan consistent with the Service's white paper "Considerations for
16 Avian and Bat Protection Plans,"²³⁹ in order to demonstrate compliance with the BGEPA and the
17 MBTA. The USFWS provided information about specific measures for the avian and bat
18 protection plan, including suggested setbacks²⁴⁰ from golden eagle nests; golden eagle surveys;
19 project design to avoid golden eagle fatalities; and monitoring consistent with USFWS interim
20 protocols.²⁴¹ In response to the comments, the applicant has worked with the USFWS to develop
21 an Avian and Bat Protection Plan for the facility²⁴² to demonstrate compliance with the federal
22 statutes. Implementation of federal requirements will be monitored by the USFWS.

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)

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1 In addition, as noted below, in order to find compliance with the Council's Fish and Wildlife
2 Habitat Standard, the Council requires a Wildlife Monitoring and Mitigation Plan (WMMP) to
3 ensure that the facility operation complies with the Council's standard. The WMMP would
4 require the certificate holder to conduct short-term and long-term raptor nest monitoring to
5 determine whether operation of the facility results in a reduction of nesting activity or nesting
6 success in the local populations of golden eagles and other raptors. If monitoring under the
7 WMMP indicates a reduction in nesting success or nest use, the certificate holder will be required
8 to propose and implement additional mitigation. In addition, the WMMP includes two years of
9 fatality monitoring for all avian species at the facility site during operation and provides for
10 additional mitigation if fatality rates for golden eagles (or any individual species) are found to be
11 higher than expected and at a level of biological concern. The WMMP also requires the
12 certificate holder to report to the USFWS on any fatalities of species protected under the
13 Migratory Bird Treaty Act found during fatality monitoring or found anytime by maintenance
14 personnel.

15 **Bats.** The primary impact to bats is expected to occur through turbine collision; the proposed
16 project is not expected to impact bat roosting habitat or foraging areas.²⁴³ Throughout the
17 Columbia Plateau Ecoregion, fatalities have been primarily silver-haired and hoary bats; data
18 from other Columbia Plateau wind projects show that >96% of bat fatalities were hoary and
19 silver-haired bats, most during fall migration.²⁴⁴

20 Bat mortality numbers at the proposed Summit Ridge facility is expected to fall within the
21 range of fatalities at other Columbia Plateau projects, which was from 0.39 to 2.47/MW/year with
22 a mean of 1.38.²⁴⁵ Bat species composition of fatalities at the proposed facility will likely be
23 similar to fatalities found at wind projects in the region. Silver-haired and hoary bats (both State
24 Sensitive-Vulnerable) constitute most of the fatalities at regional wind energy projects.²⁴⁶ Small
25 numbers of other bat species, such as big brown bat, little brown bat, and other unidentified
26 *Myotis* species, have been found at wind projects on the Columbia Plateau and may also be found
27 as fatalities at the proposed Summit Ridge facility.²⁴⁷

28 Predicting impacts to bats is complex and uncertain because the proposed Summit Ridge
29 project is relatively distant from projects in operation for which fatality monitoring has been
30 conducted.²⁴⁸ However, bat fatalities at the proposed facility are expected to fall within the range
31 of fatalities at other Columbia Plateau wind facilities, and to consist of a similar species
32 composition.

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

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

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1 including 20 raptor fatalities, and the predicted annual bat fatalities would be approximately 276
2 bats.²⁴⁹

3
4 **IV.G.1.c. Mitigation and Monitoring**

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

15 The ODFW goals and standards in OAR 635-415-0025 indicate a preference for avoidance of
16 impacts on habitat in Categories 1 through 5. No Category 1 habitat is located within the proposed
17 project boundaries; therefore there will be no impact to Category 1 habitat.²⁵⁰ The applicant has
18 estimated habitat impacts using a “worst-case” layout; using this layout, the proposed Summit Ridge
19 facility would have both permanent and temporary impacts on habitat in Categories 2, 3, 4 and 6.
20 Approximately 47 percent (84.91 acres) of permanent and temporary impacts would occur on habitat
21 in Categories 2, 3 and 4, and 53 percent (94.63 acres) of the permanent and temporary impacts would
22 occur on Category 6 habitat. The applicant proposes to construct the proposed facility in such a way
23 as to minimize temporary and permanent impacts to higher-quality habitat and to retain habitat cover
24 in the general landscape.²⁵¹ The Council includes Condition IV.G.2.2, requiring the applicant to
25 implement design measures to minimize impacts on sensitive wildlife habitat.

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

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

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

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

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

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1 Habitat in Categories 2, 3 and 4 will be disturbed during construction of the facility. This
2 additional disturbance area is temporary, until successful habitat restoration is achieved.

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

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

17 **IV.G.1.c.ii. Habitat Mitigation Plan**

18 The applicant proposes to establish a habitat mitigation area (HMA) to address the permanent
19 impacts to habitat in Categories 2, 3 and 4.²⁵⁴ The protected mitigation area would replace
20 wildlife habitat lost due to the footprint of permanent facility components within the facility site
21 and offset the temporal loss of habitat quality due to construction disturbance. The HMA is
22 proposed to include 2 acres of protected habitat for every acre of permanent impact to Category 2
23 habitat (a 2:1 ratio).²⁵⁵ The land in the HMA designated for mitigation of Category 2 impacts
24 must be of Category 2 quality or be capable of enhancement to achieve Category 2 quality within
25 a reasonable time. The HMA would include one acre for every acre of permanent impacts to
26 Category 3 and 4 habitats (a 1:1 ratio). As with the Category 2 mitigation, the portion of the
27 HMA designated as mitigation for Category 3 and 4 impacts would have to currently possess, or
28 be capable of achieving, habitat quality matching the quality category of the land it is serving to
29 mitigate.

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

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

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

²⁵³ Final ASC, Attachment P-6

²⁵⁴ Final ASC, Attachment P-6

²⁵⁵ Final ASC, Attachment P-6

²⁵⁶ Final ASC, Section P.8.2, p. 39 and Attachment P-6

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1 letter to the applicant²⁵⁷, ODFW had several suggestions related to some of the proposed
2 mitigation sites. The applicant responded that it “is in agreement with the recommendations of
3 this letter, and will undertake the improvements identified in establishing these as mitigation
4 sites.”²⁵⁸ The purpose of the proposed HMP is to enhance and protect the habitat quality of the
5 mitigation area by implementing the actions described in the plan. The certificate holder would
6 monitor the mitigation area to assess progress toward meeting success criteria. The plan
7 describes monitoring and reporting procedures and the criteria for evaluating the success of
8 habitat mitigation.

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

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

17 ***IV.G.1.c.iii. Wildlife Monitoring and Mitigation Plan***

18 The proposed HMP addresses the ODFW goals for habitat quantity and quality. To further
19 address the issue of habitat quality and ensure that facility operation complies with the Council
20 standard, the applicant proposes wildlife monitoring during operation of the proposed facility.²⁵⁹
21 The draft WMMP is incorporated here as Exhibit 2. The Council includes Condition IV.G.2.5,
22 which would require the certificate holder to conduct wildlife monitoring as described in the
23 WMMP. The objectives for the proposed wildlife monitoring program are to determine whether
24 the proposed facility causes significant fatalities of birds and bats, and to determine whether the
25 proposed facility results in a loss of overall habitat quality.

26 Monitoring during the operation of the proposed Summit Ridge facility is necessary to
27 determine whether additional mitigation may be required for compliance with the Fish and
28 Wildlife Habitat Standards. Adequate monitoring provides data necessary to evaluate the impacts
29 of facility operation on nearby wildlife habitat. The WMMP describes wildlife monitoring
30 components, statistical analysis and data reporting that the certificate holder will be required to
31 implement during operation of the proposed facility. Under the terms of the WMMP, the
32 Department may require the certificate holder to implement additional monitoring or mitigation,
33 subject to approval by the Council, if the monitoring results show significant fatalities of avian or
34 bat species, adverse impact to raptor nesting or other significant loss of habitat quality.

35 Subject to compliance with the site certificate conditions listed below, the Council finds that
36 the design, construction and operation of the facility, taking into account mitigation, are
37 consistent with the fish and wildlife habitat mitigation goals and standards of OAR 345-415-
38 0025, in compliance with the Council’s wildlife habitat standard.

39 **IV.G.2 FISH AND WILDLIFE HABITAT: CONDITIONS**

40 Based on the review of the information provided in Exhibit P of the ASC and other evidence in the
41 record, and to ensure compliance with the Wildlife Habitat standard in OAR 345-022-0060, the Council
42 includes the following conditions in the site certificate:

²⁵⁷ ODFW Review of Summit Habitat Mitigation and Wildlife Monitoring Plans, May 24, 2010 (SRW-0051)

²⁵⁸ Final ASC, Section P.8.2, p. 39

²⁵⁹ Final ASC, Attachment P-7

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- 1 IV.G.2.1 Before beginning construction, the certificate holder shall provide to the Department, to the
2 Oregon Department of Fish and Wildlife (ODFW) and to the Planning Director of Wasco
3 County detailed maps of the facility site, showing the final locations where the certificate
4 holder proposes to build facility components, and a table showing the acres of temporary
5 habitat impact by habitat category and subtype and the acres of permanent habitat impact by
6 habitat category and subtype. The detailed maps of the facility site shall indicate the habitat
7 categories of all areas that would be affected during construction. In classifying the affected
8 habitat into habitat categories, the certificate holder shall consult with ODFW. The certificate
9 holder shall not begin ground disturbance in an affected area until the habitat assessment has
10 been approved by the Department. The Department may employ a qualified contractor to
11 confirm the habitat assessment by on-site inspection. [Site Certificate Condition 10.1]
- 12 IV.G.2.2 In addition to the requirements of IV.D.2.7 (requiring facility design to minimize impact to
13 farming practices), the certificate holder shall incorporate the design elements listed below
14 into the final facility design to avoid or mitigate impacts to sensitive wildlife habitat:
- 15 (a) Where practicable, facility components and construction areas shall be located to avoid
16 or minimize temporary and permanent impacts to high quality native habitat and to
17 retain habitat cover in the general landscape.
 - 18 (b) No facility components may be constructed within areas of Category 1 habitat and
19 temporary disturbance of Category 1 habitat shall be avoided.
 - 20 (c) The design of the facility and areas of temporary and permanent disturbance shall avoid
21 impacts to any Category 1 habitat, to any State-listed threatened or endangered plant or
22 wildlife species, and to any State Candidate plant species.
23 [Site Certificate Condition 10.2]
- 24 IV.G.2.3 In addition to the requirements of IV.C.2.2 (limiting traffic to improved road surfaces to the
25 extent possible), the certificate holder shall implement measures to avoid or mitigate impacts
26 to sensitive wildlife habitat during construction including, but not limited to, the following:
- 27 (a) Preparing and distributing maps to employees and contractors to show areas that are
28 off-limits to construction personnel, such as nesting or denning areas for sensitive
29 wildlife species;
 - 30 (b) Avoiding unnecessary road construction, temporary disturbance and vehicle use;
 - 31 (c) Limiting construction work to approved and surveyed areas shown on facility
32 constraint maps; and
 - 33 (d) Ensuring that all construction personnel are instructed to avoid driving cross-country or
34 taking short-cuts within the site boundary or otherwise disturbing areas outside of the
35 approved and surveyed construction areas.
36 [Site Certificate Condition 10.3]
- 37 IV.G.2.4 The certificate holder shall acquire the legal right to create, enhance, maintain and protect a
38 habitat mitigation area, as long as the site certificate is in effect, by means of an outright
39 purchase, conservation easement or similar conveyance and shall provide a copy of the
40 documentation to the Department prior to the start of construction. Within the habitat
41 mitigation area, the certificate holder shall improve the habitat quality as described in the
42 Habitat Mitigation Plan that is incorporated as Exhibit 3 of the Order and as amended from
43 time to time. [Site Certificate Condition 10.4]
- 44 IV.G.2.5 The certificate holder shall conduct wildlife monitoring as described in the Wildlife
45 Monitoring and Mitigation Plan that is incorporated as Exhibit 2 of the Order and as amended
46 from time to time. [Site Certificate Condition 10.5]
47 [Mandatory Condition OAR 345-027-0020(6)]

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- 1 IV.G.2.6 The certificate holder shall hire a qualified environmental professional to provide
2 environmental training during construction and operation. Environmental training includes
3 information on the sensitive species present onsite, precautions to avoid injuring or destroying
4 wildlife or sensitive wildlife habitat, exclusion areas, permit requirements and other
5 environmental issues. The certificate holder shall instruct construction and operations
6 personnel to report any injured or dead wildlife detected while on the site to the appropriate
7 onsite environmental manager. [Site Certificate Condition 10.6]
- 8 IV.G.2.7 Before beginning construction and after considering all micro-siting factors, the certificate
9 holder shall provide to the Department a map showing the final design locations of all
10 components of the facility and the areas that would be disturbed during construction and
11 identifying the survey areas for all plant and wildlife surveys. This information may be
12 combined with the map submitted per the requirements of Condition IV.G.2.1. The certificate
13 holder shall hire a qualified professional biologist to conduct a pre-construction plant and
14 wildlife investigation of all areas that would be disturbed during construction that lie outside
15 of the previously surveyed areas. The certificate holder shall provide a written report of the
16 investigation to the Department and to the Oregon Department of Fish and Wildlife (ODFW).
17 [Site Certificate Condition 10.7]

18 **IV.G.3 FISH AND WILDLIFE HABITAT: CONCLUSIONS OF LAW**

19 Based on the foregoing findings, and subject to compliance with the site certificate conditions, the
20 Council finds that the design, construction and operation of the proposed facility would be consistent with
21 ODFW's habitat mitigation goals and standards (OAR 635-415-0025) and therefore the proposed facility
22 complies with the Council's Fish and Wildlife Habitat Standard.
23

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1 **IV.H. THREATENED AND ENDANGERED SPECIES [345-022-0070]**

2 **OAR 345-022-0070**

3 *To issue a site certificate, the Council, after consultation with appropriate state agencies, must*
4 *find that:*

- 5 (1) *For plant species that the Oregon Department of Agriculture has listed as threatened or*
6 *endangered under ORS 564.105(2), the design, construction and operation of the proposed*
7 *facility, taking into account mitigation:*
- 8 (a) *Are consistent with the protection and conservation program, if any, that the Oregon*
9 *Department of Agriculture has adopted under ORS 564.105(3); or*
- 10 (b) *If the Oregon Department of Agriculture has not adopted a protection and conservation*
11 *program, are not likely to cause a significant reduction in the likelihood of survival or*
12 *recovery of the species.*
- 13 (2) *For wildlife species that the Oregon Fish and Wildlife Commission has listed as threatened or*
14 *endangered under ORS 496.172(2), the design, construction and operation of the proposed*
15 *facility, taking into account mitigation, are not likely to cause a significant reduction in the*
16 *likelihood of survival or recovery of the species.*

17 **IV.H.1 THREATENED AND ENDANGERED SPECIES: FINDINGS OF FACT**

18 The applicant provided information about compliance with the Council's Threatened and
19 Endangered Species Standard in Exhibit Q of the application. The analysis area for threatened or
20 endangered plant²⁶⁰ and wildlife²⁶¹ species is the area within the site boundary and five miles from the site
21 boundary. In the application, those species listed as threatened or endangered by the responsible agencies
22 in Oregon are referred to as "State-listed" species. Although the Council's standard does not directly
23 address federally-listed threatened or endangered species, certificate holders must comply with all
24 applicable federal laws, including laws protecting those species.

²⁶⁰ 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 Species Act of 1973 (P.L. 93-205, 16 U.S.C. 1531 et seq.), as amended.

"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 Act of 1973 (P.L. 93-205, 16 U.S.C. 1531 et seq.), as amended.

²⁶¹ 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 Species Act of 1973 (P.L. 93-205, 16 U.S.C. 1531), as amended.

"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 Species Act of 1973 (P.L. 93-205, 16 U.S.C. 1531), as amended.

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1 In order to identify State-listed or candidate plant species that might occur within the analysis
2 area, the applicant conducted searches of the ORBIC and USFWS databases for documented and
3 projected occurrences of endangered, threatened and special-status plant and wildlife species likely to be
4 found in that area. In addition, the applicant reviewed existing literature and scientific data regarding
5 special-status species occurrences in the region.²⁶² The applicant used information from the database
6 searches to inform plant and wildlife field surveys of the analysis area that were performed June 1-2,
7 2009. The proposed transmission line area was surveyed on May 28, 2010.²⁶³

8 **IV.H.1.a. Plant Species**

9 No listed or candidate plant species were identified during field surveys of the analysis area;
10 however, five plant species with state conservation status were identified which may occur within
11 the analysis area based on habitat suitability and records of nearby occurrences.²⁶⁴ These plants
12 included Tygh Valley milk vetch (threatened) and Henderson's ricegrass, dwarf evening-primrose,
13 diffuse stickseed, and hepatic monkey flower (candidate species).

14 To ensure protection of populations of these species during construction and operation of the
15 proposed facility the Council includes Condition IV.G.2.2 (requiring incorporation of elements into
16 the final facility design to minimize impacts to sensitive wildlife habitat), Condition IV.G.2.3
17 (requiring implementation of measures during construction to avoid sensitive wildlife habitat), and
18 Condition IV.G.2.6 (requiring that a qualified environmental professional provide environmental
19 training to construction and operation staff). These conditions are discussed in more detail in
20 Section IV.G (Fish and Wildlife Habitat).

21 **IV.H.1.b. Fish and Wildlife Species**

22 During field surveys of the analysis area, four detections of bald eagles were recorded.²⁶⁵ The
23 bald eagle has been removed from the federal endangered species list, but is still protected under the
24 federal Bald and Golden Eagle Protection Act and is listed at the state level as threatened.²⁶⁶ No
25 other listed or candidate species were identified as likely to occur within the analysis area, nor
26 during field surveys of the analysis area. Bald eagles nest and forage along fish-bearing streams
27 throughout Oregon and Washington from late winter to early summer and are known to winter near
28 the Columbia River. The species uses communal night roosts primarily during winter. Communal
29 roosts generally occur in multi-layered mature or old-growth conifer stands that provide protection
30 from weather and human disturbance.

31 Nesting typically begins in January, followed by egg-laying and incubation in February and
32 March. Young are reared from April to June and fledging occurs in July and August. Bald eagles are
33 primarily predators, but they are also opportunistic scavengers that feed on a variety of prey,
34 including salmon, other fish, small mammals, waterfowl, seabirds and carrion. Bald eagles usually
35 forage in large open areas with a wide visual field and suitable perch trees located near the food
36 source. Bald eagles concentrate their foraging and roosting in areas along or close to the Columbia
37 River, but they scavenge on carrion and small mammals in the upland areas.

38 As stated above, four bald eagles were observed during the wildlife surveys of the proposed
39 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.

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1 carrion, but are not expected to make extensive use of the site. The applicant's database search did
2 not turn up any records of bald eagle nests or roosting areas within five miles of the proposed site
3 and bald eagles are not expected to nest in the vicinity of the proposed project.²⁶⁷

4 Potential adverse impacts to bald eagles passing through the site could occur from collisions
5 with proposed wind turbines; however, the applicant notes that there have been no reported instances
6 of bald eagle fatalities at any wind energy facility in the United States.²⁶⁸ The likelihood of adverse
7 effects appears to be low due to the limited use of the facility site by bald eagles.

8 **IV.H.1.c. Potential Impacts and Mitigation**

9 The Council adopts conditions requiring that most of the facility collector lines be placed
10 underground, which will help to mitigate the risk to bald eagles and other avian species from wire
11 strikes and electrocution (see Section IV.K, Public Health and Safety Standards). Condition
12 IV.H.2.1 requires the certificate holder to design aboveground transmission lines to minimize raptor
13 injury by adhering to the Avian Power Line Interaction Committee suggested practices for raptor
14 protection on power lines. In addition, it requires that meteorological towers be non-guyed
15 structures to eliminate the risk of avian collision with guy-wires, and turbine towers be smooth
16 tubular structures rather than lattice towers to avoid creating perching opportunities.²⁶⁹ Transformer
17 cabinets at each turbine would be designed to avoid creation of artificial habitat for raptor prey and
18 each turbine must have a 15-foot graveled area around the base (Condition V.C.2.8), which will
19 reduce weeds and so reduce cover for raptor prey near turbines.

20 As described in the draft *Wildlife Monitoring and Mitigation Plan* (WMMP) (Exhibit 2), the
21 certificate holder will conduct standardized fatality searches of turbine tower areas during operation
22 and will conduct ongoing monitoring of all facility structures. The certificate holder will be required
23 to notify USFWS, ODFW and the Department of any bald eagle fatalities attributable to collision
24 with wind turbines or other facility structures. Under the WMMP, the Council may require
25 additional mitigation if the fatality rate for raptor species exceeds a level of concern. Based on the
26 limited use of the facility site by bald eagles and considering the mitigation measures that the
27 certificate holder will implement, the Council finds that the design, construction and operation of the
28 proposed facility are not likely to cause a significant reduction in the likelihood of survival or
29 recovery of the bald eagle species.

30 **IV.H.2 THREATENED AND ENDANGERED SPECIES: SITE CERTIFICATE CONDITIONS**

31 Based on the review of the information provided in Exhibit Q of the ASC, and to ensure compliance
32 with the Threatened and Endangered Species Standard in OAR 345-022-0070, the Council includes the
33 following conditions in the site certificate:

34 IV.H.2.1 The certificate holder shall reduce the risk of injuries to avian species by:

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

²⁶⁷ Final ASC, Section Q.4, p. 4

²⁶⁸ Final ASC, Section Q.4, p. 4

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.

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- 1 (b) Installing meteorological towers that are non-guyed structures to eliminate the risk of
2 avian collision with guy-wires.
3 (c) Designing and installing all aboveground transmission line support structures following
4 the most current suggested practices for avian protection on power lines published by
5 the Avian Power Line Interaction Committee.
6 [Site Certificate Condition 10.8]
7

8 **IV.H.3 THREATENED AND ENDANGERED SPECIES: CONCLUSIONS OF LAW**

9 Based on the foregoing findings and subject to compliance with the site certificate conditions, the
10 Council finds that the design, construction and operation of the proposed facility do not have the potential
11 to significantly reduce the likelihood of the survival or recovery of any threatened or endangered plant or
12 wildlife species listed under Oregon law. Based on these findings and subject to the site certificate
13 conditions described herein, the Council concludes that the proposed facility complies with the
14 Threatened and Endangered Species Standard.
15

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1 **IV.I. SCENIC RESOURCES [OAR 345-022-0080]**

2 **OAR 345-022-0080**

3 *(1) Except for facilities described in section (2), to issue a site certificate, the Council must find*
4 *that the design, construction and operation of the facility, taking into account mitigation, are*
5 *not likely to result in significant adverse impact to scenic resources and values identified as*
6 *significant or important in local land use plans, tribal land management plans and federal*
7 *land management plans for any lands located within the analysis area described in the*
8 *project order.*
9 ***

10 **IV.I.1 SCENIC RESOURCES: FINDINGS OF FACT**

11 The applicant provided evidence about potential impacts to scenic resources in Exhibit R of the
12 application. The analysis area for the Scenic Resources Standard is the area within the site boundary and
13 20 miles from the site boundary, including areas outside the state. In applying this standard, the Council
14 focuses on the effects of facility structures on scenic resources described in "local land use plans, tribal
15 land management plans and federal land management plans for any lands located within the analysis area
16 described in the project order."

17 The tallest components of the proposed Summit Ridge are the turbine towers, and these structures
18 are the visual elements of the facility most likely to be visible from a distance. Although the turbine
19 towers for the proposed facility would be approximately 80 meters at hub height, the visual impact of the
20 towers diminishes with distance.

21 **IV.I.1.a. Visual Features of the Site and the Proposed Facility**

22 The proposed Summit Ridge site consists of facility components spread out within an area of
23 approximately 27,093 acres. Within this site boundary, the applicant proposes to construct up to 87
24 wind turbine towers. The towers would have a maximum hub height of 80 meters (263 feet) and
25 maximum blade tip height of 130 meters (427 feet). In addition, the applicant proposes up to three 80-
26 meter met towers, aboveground transmission lines on support structures up to 70 feet tall, a limited
27 amount (10% or less of the total) of aboveground collector lines on support structures up to 55 feet tall,
28 and a combined O&M and substation area on approximately five acres.

29 The wind turbine towers would be painted a low-reflective neutral gray, white, or off-white color.
30 Other facility structures would be designed to blend with the surrounding landscape. The certificate
31 holder would design signs in accordance with applicable county ordinances. Facility lighting would be
32 limited to aviation safety lighting on turbine towers and limited lighting for safety and security purposes
33 at the O&M facility and substation.²⁷⁰ The Council includes Conditions IV.I.2.1 and IV.I.2.2, IV.I.2.3
34 (as presented in Section IV.I.2 below), and Conditions IV.D.2.2 (regarding limitations on use of signs)
35 and IV.D.2.3 (regarding shielding and hooding lights to reduce adverse impacts to the night sky) to
36 mitigate impacts to identified scenic values.

37 The applicant performed a visibility analysis of the project area (20 miles from the site boundary).
38 This analysis was performed using ESRI ArcGIS software and based on US Geological Survey Digital
39 Elevation Models.²⁷¹ Modeling techniques were used to determine areas from which the proposed
40 facility would potentially be visible. The precision of these modeling techniques are limited by the
41 resolution of the Digital Elevation Models, which in this case were 10 meter resolution models. It is
42 also important to note that the models do not incorporate weather conditions, vegetation or structures
43 which might affect on-the-ground visibility. The model considers an object to be visible if any part of

²⁷⁰ Final ASC, Section R.6, p. 12

²⁷¹ Final ASC, Section R.2, p. 1

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1 that object (turbine or transmission tower), is within a line-of-sight, based on that object's maximum
2 height.

3 In comments FOCG raised issues related to the demonstration of compliance with the Scenic
4 Resources Standard. FOCG urged the Council to reject the visual resource study provided by the
5 applicant and to require the applicant to perform the visual analysis using the Bureau of Land
6 Management's (BLM) Visual Resource Management (VRM) system.²⁷² In addition, FOCG urges the
7 Council to adopt the practices propounded by the National Research Council of the National Academy
8 of Sciences as the standard for creating simulations for wind energy facilities.²⁷³ FOCG urges the
9 Council to require the applicant to use specific wind project simulation software. Based on its preferred
10 methodology, FOCG lists a number of deficiencies in the analysis. However, FOCG did not provide an
11 alternative visual impact study conducted pursuant to its preferred methodology, nor did FOCG provide
12 any qualified authority to support its assertions regarding the visual impact study.

13 The applicant provided responsive comments to the FOCG issues regarding visual resource
14 modeling. The applicant correctly points out that the applicable EFSC administrative rules do not
15 specify the methodology to be used to determine compliance with the Scenic Standard. In addition, the
16 applicant noted that BLM identified the VRM analysis as a "tool for managing public lands." As the
17 applicant points out, the project will be located on private land not managed by BLM and, thus, use of
18 the BLM VRM is not required for this project.

19 The applicant performed an initial visibility analysis based on a preliminary project design
20 incorporating 167 turbines; the analysis showed that this project design would potentially have a
21 significant impact on views. The applicant then revised the project design to incorporate 87 turbines and
22 the analysis discussed here was performed based on this currently proposed design.²⁷⁴ The applicant
23 used the visibility analysis to determine the Zone of Visual Influence (ZVI) of the proposed facility,
24 based on the proposed layout. Figure R-1 of Exhibit R of the ASC shows the areas from which turbines
25 will likely be visible. Using the results of the ZVI, visual simulations were prepared to show potential
26 visibility from key viewpoints along the Deschutes River. The applicant selected viewpoint locations
27 based on the visibility analysis and fieldwork conducted August 30-31, 2009.²⁷⁵ These visual
28 simulations are shown in Figures R-2 through R-6 of Exhibit R of the ASC (see discussion below in
29 IV.1.1.B.ii.)

30 To decide whether the proposed facility would comply with the Council's Scenic Resources
31 standard, the Council must first determine whether any of the land management plans for locations
32 within the analysis area identify "significant or important" scenic resources and values. The Council
33 must then decide whether the proposed facility could be visible from those locations and, if so, whether

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).

²⁷³ SRW-0133, p. 4

²⁷⁴ Final ASC, Section R.2, p.1 and Section R.5.3.2, pp. 8-9

²⁷⁵ Final ASC, Section R.2, pp. 1-2

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1 the visual impact of the proposed facility would result in “significant adverse impact”²⁷⁶ to the
2 identified scenic resources and values.²⁷⁷

3 The applicant identified the following local, tribal and federal land management plans that apply to
4 land within the analysis area:

- 5 • Management Plan for the Columbia River Gorge National Scenic Area, September 1992, revised
6 May 10, 2004;
- 7 • Mt. Hood National Forest Land and Resource Management Plan Final Environmental Impact
8 Statement, October, 1990;
- 9 • Lower Deschutes River Management Plan and Final Environmental Impact Statement, January
10 1993 (Record of Decision issued February 1993);
- 11 • White River National Wild and Scenic River Management Plan, Decision Notice, and Finding of
12 No Significant Impact, 1994;
- 13 • John Day Proposed Management Plan, Two Rivers and John Day Resource Management Plan
14 Amendments and Final Environmental Impact Statement, June 2000 (Record of Decision issued
15 February 2001);
- 16 • Two Rivers Resource Management Plan Final Environmental Impact Statement, September 1986;
- 17 • Lewis and Clark National Historic Trail Comprehensive Plan and Management and Use, January
18 1982;
- 19 • Management and Use Plan Update Final Environmental Impact Statement Oregon National
20 Historic Trail and Mormon Pioneer National Historic Trail, August 1999;
- 21 • Spokane Resource Management Plan and Record of Decision, May, 1987;
- 22 • Comprehensive Plan for Wasco County [Oregon];
- 23 • Hood River County Comprehensive Land Use Plan [Oregon];
- 24 • Comprehensive Plan for Land Use in Gilliam County, Oregon, May, 1977 (Amended 1987);
- 25 • Sherman County [Oregon] Comprehensive Land Use Plan, 1994, (Updated 2007);
- 26 • Klickitat County [Washington] Comprehensive Plan, August, 1977;
- 27 • Comprehensive Plan for the City of Dufur, Oregon, 1977;
- 28 • City of the Dalles [Oregon] Comprehensive Plan, December, 1982;
- 29 • Maupin [Oregon] Comprehensive Land Use Plan, 1980;
- 30 • Moro [Oregon] Comprehensive Land Use Plan, July, 1978;
- 31 • Rufus [Oregon] Comprehensive Land Use Plan, June, 1978;

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.”

²⁷⁷ Contrary to FOCG’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.

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- 1 • Wasco [Oregon] Comprehensive Land Use Plan, May, 1978;
- 2 • Grass Valley [Oregon] Comprehensive Land Use Plan, April, 1978; and,
- 3 • Goldendale [Washington] Comprehensive Land Use Plan, 1999.

4 Not all of these plans identify significant visual or aesthetic resources within the analysis area. The
 5 applicant identified scenic resources that are identified in one or more of the above plans for analysis.
 6 Significant or important scenic resources identified in these management plans that are within the
 7 analysis area are listed in the table below (“Scenic Resources in the Analysis Area”).

8

Scenic Resources in the Analysis Area			
Scenic Resource	Management	Location	Distance from the Site Boundary (miles) ²⁷⁸
Columbia River Gorge National Scenic Area	Federal	Oregon/Washington	11.0
Lower Deschutes River Canyon	Federal and State	Oregon	2.0
White River Canyon	Federal	Oregon	10.0
John Day River Canyon	Federal and State	Oregon	15.5
Mt. Hood National Forest	Federal	Oregon	15.0
Oregon National Historic Trail	Federal	Oregon	8.5
Journey Through Time Scenic Byway	State	Oregon	6.5
Wasco County	County	Oregon	The entire facility lies within the county.
Sherman County	County	Oregon	6.0

9 **IV.I.1.a.i. Columbia River Gorge National Scenic Area (CRGNSA)**

10 The CRGNSA Management Plan identifies key viewing areas which are important viewpoints
 11 open to the public offering opportunities to view the gorge. Key viewing areas within the analysis
 12 area include Interstate Highway 84 (I-84), Historic Columbia River Highway, Washington State
 13 Route 14 (SR-14), Rowena Plateau and Nature Conservancy Viewpoint, and the Columbia River.
 14 Scenic travel corridors within the analysis area include I-84 and SR-14.

15 The applicant’s visibility analysis indicates some portions of the proposed facility (i.e., turbines
 16 and/or transmission towers) would be visible from the eastern portion of the CRGNSA within the
 17 analysis area.²⁷⁹ Much of the area from which the proposed facility may be visible is not publicly
 18 accessible; there are limited roads and most land is held in private ownership. Modeling results and
 19 field investigation indicate that the proposed Summit Ridge would not be visible from I-84, Historic
 20 Columbia River Highway, Rowena Plateau and Nature Conservancy Viewpoint, or the Columbia
 21 River. The most likely locations from which to view the proposed Summit Ridge facility occur along
 22 Washington SR-14 in the vicinity of Wishram, Washington.

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

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1 Turbines and transmission lines would be located roughly 11 and 12 miles, respectively, from
2 SR-14. Given the viewing distance, it is not clear whether transmission towers would be discernable
3 to the naked eye. Where visible, the Summit Ridge facility would likely be subordinate to the
4 landscape setting that typically includes significant man-made development such as interstate and
5 rail transportation corridors, other wind turbine development projects, transmission corridors, radio
6 and cellular towers, and urban and rural development in the foreground and middleground.²⁸⁰

7 In comments the FOCG challenges this characterization of the visibility of the Summit Ridge
8 facility, stating that the “analysis is a gross mischaracterization of the views from the National
9 Scenic Area.” The comment continues

10 Despite a few discordant features, these views are largely outstanding as evidenced by the
11 rigorous inventories and management directives completed pursuant to the National Scenic
12 Area Act. On a very common sense level the importance of these views is clearly evident by
13 the fact that the area was included within the boundaries of the National Scenic Area in the
14 first place.²⁸¹

15 The comments continue to explain how the scenic resource inventory was conducted for the
16 CRGNSA Management Plan, concluding that

17 Based on these inventories the majority of the land visible to the south of State Route 14 was
18 given a land use designation of Large-Scale Agriculture and a landscape setting designation
19 of Grassland. Notably, the existing development in the landscape, including transmission and
20 transportation corridors, did not substantially reduce the quality of the scenic resources.
21 * * *

22 However, FOCG does not distinguish land within the CRGNSA from land outside the NSA that
23 might be visible from the NSA. The Management plan is clear that it applies to new development
24 within the national scenic area:

25 The goals, objectives, policies and guidelines of this chapter provide a framework to guide
26 actions of federal, state, and local agencies and private entities that may affect scenic
27 resources of the scenic area.
28 * * *

29 This section includes overall scenic provisions that apply to **all new proposed developments**
30 **in the GMA [general management area]** regardless of whether other specific provisions
31 related to key viewing areas, landscape settings, scenic travel corridors, or signs apply.²⁸²
32 (Emphasis added.)

33 In other words, by its terms the Management Plan does not apply to development outside the
34 NSA. Thus, neither the Act nor the Management Plan provides a basis for limiting development on
35 private land outside the CRGNSA. In fact, Congress specifically disclaimed any intention to extend
36 the protections of the Scenic Act outside the boundaries of the NSA:

37 Nothing in sections 544 to 544p of this title shall

38 (10) establish protective perimeters or buffer zones around the scenic area or each special
39 management area. The fact that activities or uses inconsistent with the management
40 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

²⁸² Management Plan for the Columbia River Gorge National Scenic Area, p. I-3 (1992)

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1 areas shall not, of itself, preclude such activities or uses up to the boundaries of the scenic
2 area or special management areas.

3 16 U.S.C. § 544o(a)(10). The Act and the Management plan protect scenic resources within the
4 NSA from additional degradation from development within the NSA, but do not preclude
5 development of the Summit Ridge facility on private land outside the boundaries of the NSA, even if
6 there will be a visual impact within the NSA. The standard to be applied is whether the facility will
7 have a “significant adverse effect on the existing resources” under the Council’s Scenic Standard.
8 The existence of development in the existing viewshed is relevant to the determination of whether
9 the proposed facility has a “significant adverse impact.”

10 Based on the amount of existing development in the foreground and middleground views,
11 viewing distances, and limited opportunities to view turbines, the proposed Summit Ridge facility
12 would likely result in minimal impacts, if any, to the CRGNSA. The Council finds that the proposed
13 Summit Ridge Facility is not likely to have a significant adverse effect on the identified scenic
14 resources associated with the CRGNSA.

15 ***IV.L1.a.ii. Lower Deschutes River Canyon***

16 The Lower Deschutes is a designated federal Wild and Scenic River (recreational river
17 classification) and Oregon State Scenic Waterway. The river corridor is popular for its diverse
18 recreational opportunities including fishing and rafting. A railroad corridor (to the west) and
19 roadway (to the east) parallel the river within the canyon. Recreational development occurs in
20 several areas throughout the canyon.

21 The BLM and Oregon Parks and Recreation Department (OPRD) administer the majority of
22 public lands within the canyon. The BLM Lower Deschutes Management Plan Record of Decision
23 states that the Lower Deschutes River Canyon is an “Area of High Visual Quality” that should be
24 managed to provide “protection and enhancement to the river’s outstandingly remarkable values
25 while providing adequate levels of recreation use and diversity of opportunities.”

26 The Two Rivers Resource Management Plan identifies the Deschutes River Canyon (the rim-to-
27 rim area) as an “area of high visual quality” and as a Special Management Area which should be
28 protected while allowing compatible uses in the same area.²⁸³

29 The visibility analysis performed based on the current layout indicates that portions of some
30 turbines may be visible from areas of the Deschutes River. Transmission towers will be visible from
31 isolated canyon rims near the mouth of the river, but not from the canyon interior or river shorelines.
32 The applicant has provided five visual simulations showing the potential visibility of facility
33 components from viewpoints along the river closest to the proposed facility (and therefore most
34 likely to be impacted). These simulations were included as Figures R-2 through R-6 in Exhibit R of
35 the ASC.

36 The simulations use mapping and imagery information, which does not incorporate the presence
37 of riparian vegetation or built structures in the landscape. The analysis is based simply on which
38 features would be in the viewer’s “line of sight” considering the intervening terrain elevation. The
39 simulations do not account for vegetation that could obscure views. For example, the model results
40 indicate turbines would be visible from Heritage Landing and the DRSRA; however, the applicant
41 performed field investigation which verified that riparian vegetation would substantially screen
42 views of turbines from the campgrounds and developed recreation sites associated with these
43 facilities. Further, turbines viewed from these developed recreation sites, if visible, would be viewed
44 at distances generally greater than ten miles.

²⁸³ Final ASC, Section R.4.2, p. 4

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1 Viewpoints along the Deschutes River used for the simulations are near Game Commission
2 Camp, Bedsprings, Snake-in-the-Box, Box Elder Canyon, and Cedar Island. The simulations show
3 that portions of turbines will be visible from some locations along the Deschutes River. Visible
4 portions of turbines may include turbine blades, nacelles, and in some cases, portions of the tower.
5 It is possible that several turbines visible from the Deschutes River will require red flashing lights to
6 comply with the requirements of the FAA and will impact view of the night sky. Views of turbines
7 would be primarily from distances of two or more miles. While turbines will be visible from the
8 river, they are not expected to dominate views and would generally be subordinate to the
9 surrounding landscape.²⁸⁴

10 FOCG raised several issues related to the Deschutes Wild and Scenic River and application of
11 the Management Plans. FOCG asserts that the analysis does not refer to “any of the management
12 goals for scenic resources listed in any of the applicable management documents or VQOs adopted
13 by the BLM.”²⁸⁵ FOCG further asserts that the “DPO must be revised to acknowledge specific
14 ORV’s for the Deschutes River, which likely include scenic resources. Without a meaningful
15 discussion of ORVS, the DPO does not comply with state laws requiring protection of scenic areas *
16 * * ”²⁸⁶

17 FOCG states that the landscape visible from the Lower Deschutes Wild and Scenic River “likely
18 has visual resource inventory rating of Class 1”²⁸⁷ and argues that if any portion of the proposed
19 facility would be visible from the Deschutes River, then the project would attract attention and
20 undermine the Class 1 Objective. As such the project would cause significant adverse impacts.
21 FOCG argues that the only means to eliminate adverse impacts is to relocate turbines so that no
22 turbine parts break the skyline of views from the Deschutes River; site out of Deschutes River
23 viewshed, including FAA safety lighting.²⁸⁸

24 The Application and DPO adequately identify and apply the resources and values identified in
25 the applicable federal land management plans.²⁸⁹ Those plans do not purport to regulate
26 development on the project site, which is located some distance away from the designated Lower
27 Deschutes Wild and Scenic River. Similarly, although the area is designated as a State Scenic
28 Waterway pursuant to ORS 390.845, the administrative rules adopted by the Oregon Parks and
29 Recreation Department for the management of State Scenic Waterways protect scenic values “seen
30 from the waters” or “visible from the river.”²⁹⁰ Lands beyond the boundaries of “related adjacent
31 land” (defined as land within a quarter-mile of the riverbank), whether or not such land is visible
32 from the river, is outside state management jurisdiction.

33 As noted above, while the application acknowledges that portions of the proposed facility might
34 be visible from the Deschutes River Canyon, the turbines will generally be subordinate to the
35 surrounding landscape and will not dominate the views. As a result, even assuming that any visual
36 impacts can be characterized as “adverse,” the proposed Summit Ridge facility would likely result in
37 minimal impacts, if any, to the Lower Deschutes Wild and Scenic River, and thus cannot be
38 determined to be “significant.” Therefore, the Council finds that the proposed Summit Ridge facility

²⁸⁴ Final ASC, Section R.5.3.2, pp. 9-10

²⁸⁵ SRW-0133, p. 6

²⁸⁶ *Id.*

²⁸⁷ *Id.*, p. 7.

²⁸⁸ *Id.*

²⁸⁹ Final ASC, Section R.5.3.2, pp. 9-10

²⁹⁰ OAR 736-040-0015

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1 is not likely to have significant adverse impacts to identified scenic resources associated with the
2 Deschutes River Canyon.

3 ***IV.I.1.a.iii. White River Canyon***

4 The White River is a designated federal Wild and Scenic River, administered jointly by the
5 USFS and the BLM. The river corridor is divided into segments A-F in the White River National
6 Wild and Scenic River Management Plan; river segments E and F occur within the analysis area.
7 Opportunities to view the river corridor within segments E and F occur primarily from State
8 Highway 216 and at White River Falls State Park.²⁹¹

9 Computer modeling results and field investigation indicate that the proposed Summit Ridge
10 facility would not be visible from White River Falls State Park. Portions of turbines may be visible
11 at distances of greater than ten miles from the higher canyon walls of the White River, but access to
12 these locations is extremely limited, limiting the visual impact to these areas. The applicant's model
13 demonstrates that transmission towers would not be visible from these same locations.²⁹²

14 An opportunity to view the river is available on Highway 216; however, because the White
15 River is south of Highway 216 and the proposed facility would be located north of the highway,
16 there are no expected visual impacts to views of the White River from Highway 216.²⁹³ Therefore,
17 the Council finds that the proposed facility is not likely to have significant adverse impacts to
18 identified scenic resources associated with the White River Canyon.

19 ***IV.I.1.a.iv. John Day River Canyon***

20 The John Day River system includes more than 500 river miles and is one of the longest free-
21 flowing river systems in the continental United States. The landscape within the analysis area
22 features high desert communities of sagebrush and juniper with intermingled private ranches adding
23 visual interest along the river. The John Day River Canyon (i.e., the area rim-to-rim) is also
24 identified as an "area of high visual quality" and managed as a Visual Resource Management Class
25 II resource. Beginning at Tumwater Falls near river mile 10 upstream through the analysis area, the
26 river is a designated Federal Wild and Scenic River and classified as Recreational. This segment is
27 also designated as a State Scenic Waterway. The Two Rivers Resource Management Plan Record of
28 Decision also identifies two Special Management Areas relevant to this proposal: the Oregon Trail
29 Historic Site McDonald Crossing and the John Day River Canyon.²⁹⁴

30 The applicant's visibility analysis indicates that the proposed Summit Ridge facility will not be
31 visible from the John Day River and may be potentially visible from extremely small portions of the
32 higher canyon walls at distances of over 18 miles.²⁹⁵ Due to distance and lack of access to areas from
33 which the proposed facility may be visible, the Council finds that the proposed Summit Ridge
34 facility is not likely to have significant adverse impacts to identified scenic resources associated with
35 the John Day River Canyon.

36 ***IV.I.1.a.v. Mt. Hood National Forest***

37 The Mt. Hood National Forest includes over 1.1 million acres and is administered by the USFS.
38 The Mt. Hood Forest straddles the Cascade Mountain Range and varies in elevation from 65 feet

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

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1 above sea level along the Columbia River to the summit of Mt. Hood at an elevation of 11,235 feet.
2 The Forest's natural environment includes a number of attractions such as mountain lakes and
3 streams, diverse wildlife and habitats, and multiple recreational opportunities. The portion of the
4 Forest located within the analysis area includes a number of scenic viewsheds that are protected by
5 the USFS's Visual Management System Visual Quality Objectives; these objectives include
6 preservation, retention, partial retention, modification, and maximum modification.²⁹⁶

7 The applicant's computer model suggests that the proposed Summit Ridge facility would be
8 visible from Mt. Hood National Forest; however, these results may not be accurate due to the fact
9 that the model does not incorporate vegetation and the Mt. Hood National Forest area is generally
10 heavily treed. The scenic resources in the Forest and in the analysis area include forest stands with a
11 retention or preservation Visual Quality Objective. The purpose of these Visual Quality Objectives
12 is to limit logging activity and other man-made developments within these units and thus maintain
13 the units' scenic quality, which in turn will maintain vegetation, obscuring possible views of the
14 proposed Summit Ridge facility. Access to these areas is also rather limited and viewing distances
15 to the proposed Summit Ridge project are greater than 15 miles.²⁹⁷ Given these considerations, the
16 Council finds that the proposed Summit Ridge facility would not have significant adverse visual
17 impacts on the Mt. Hood National Forest.

18 ***IV.I.1.a.vi. Oregon National Historic Trail***

19 The Oregon National Historic Trail was authorized by congress in 1978, to provide for this
20 significant historic route's preservation, interpretation, public use, and understanding. The
21 management plan is a coordinating document that provides broad-based policies, guidelines, and
22 standards for administering the trail (as well as the California, Pony Express, and Mormon Pioneer
23 National Historic trails) in such a manner as to ensure the protection of trail resources, their
24 interpretation, and their appropriate public use. This plan identifies both segments and sites along the
25 trail with a high potential for public use. The plan identifies four high-potential sites within the
26 analysis area, based on "historic significance, presence of visible historic remnants, scenic quality,
27 and relative freedom from intrusion." The four sites are the Deschutes River Crossing, The Dalles
28 Complex, Tygh Valley, and Biggs Junction. The Plan does not identify specific scenic or aesthetic
29 resources at these sites.²⁹⁸

30 The applicant's computer model and field investigations indicate that the proposed Summit
31 Ridge facility will not be visible from any of the four identified high-potential sites.²⁹⁹ Therefore, the
32 Council finds that the proposed Summit Ridge project will not significantly impact these resources
33 of the Oregon National Historic Trail.

34 ***IV.I.1.a.vii. Journey Through Time Scenic Byway***

35 The Journey Through Time Management Plan is administered through Oregon Department of
36 Transportation Scenic Byway Program. This Plan is referenced by the Sherman County
37 Comprehensive Plan and therefore applies to the proposed Summit Ridge facility. The Sherman
38 County Comprehensive Plan does not provide any additional guidance on management of the scenic
39 or aesthetic resources associated with the Journey Through Time Scenic Byway. The Journey
40 Through Time Management Plan describes the rural heritage and history of the 286-mile route
41 through north central Oregon; however, the Journey Through Time Management Plan does not

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

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1 identify any significant visual or aesthetic resources for protection or consideration. The plan
2 defines four goals: create jobs; maintain rural lifestyles; protect important values (i.e., historic
3 attractions and an emphasis on education); and build identity in the region.³⁰⁰

4 The applicant's visibility analysis shows that portions of turbines will be visible in the
5 background along portions of the Journey Through Time Scenic Byway, primarily between the
6 towns of Wasco and Grass Valley. Transmission towers will not be visible. The proposed Summit
7 Ridge facility is compatible with the Journey Through Time Scenic Byway's stated goals,
8 particularly the goals of job creation and building a regional identity. Turbines that are visible from
9 the Byway will be visible in the background, and will be subordinate to the surrounding landscape,
10 which includes extensive turbine development in the foreground and middleground.³⁰¹ For these
11 reasons the Council finds that the proposed Summit Ridge facility will not significantly impact the
12 Journey Through Time Scenic Byway.

13 ***IV.I.1.a.viii. Wasco County Resources***

14 The WCCP identifies the following scenic highways within the analysis area: Interstate 84 (I-
15 84) east of The Dalles city limits; OR Hwy 197 between I-84 and just north of the town of Dufur;
16 and a second segment of Hwy 197 beginning at the summit of Tygh Ridge and continuing south
17 approximately thirteen miles before leaving the analysis area. The WCCP has designated these
18 highway segments as scenic resources due to their being "adjacent to or passing through scenic areas
19 in State or Federal parks, historic sites, or in areas of natural beauty...designated by the Scenic Area
20 Board." In addition, the WCCP identifies Pine Hollow Lake and its surroundings as an outstanding
21 scenic and recreational area. The WCCP also identifies the CRGNSA as a scenic resource; this
22 resource is addressed Section IV.I.1.b.i, above.³⁰²

23 The visibility analysis indicates that the proposed Summit Ridge facility will not be visible
24 from Pine Hollow Lake and therefore will not have adverse impacts on that resource. The analysis
25 does indicate that portions of turbines and transmission towers will be intermittently visible from the
26 identified scenic highway segments at distances of at least 7.6 miles and 1.8 miles, respectively. As
27 stated above in the discussion of impacts to the CRGNSA, the proposed Summit Ridge facility will
28 not be visible from I-84. Given the intermittent nature of the visibility of the proposed facility,
29 viewing distances, the presence of existing transmission facilities in the vicinity, and the fact that the
30 turbines and towers would be subordinate to the surrounding landscape, the Council finds that the
31 proposed Summit Ridge facility would have minimal impacts, if any, to the scenic highway
32 segments in the analysis area identified by the WCCP.³⁰³

33 ***IV.I.1.a.ix. Sherman County Resources***

34 The Sherman County Comprehensive Plan Goal VI is to "Encourage preservation of the rural
35 nature of the Sherman County landscape." Policy VII of the section states "trees should be
36 considered an important feature of the landscape and therefore the County Court shall encourage the
37 retention of this resource when practical." Trees within the analysis area are sparsely distributed and
38 occur primarily along the riparian corridor of the Lower Deschutes River and in developed rural
39 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

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1 The proposed Summit Ridge facility is located entirely within Wasco County and will not
2 impact trees in Sherman County or affect the rural nature of the Sherman County landscape.³⁰⁵ For
3 these reasons, the Council finds that the proposed Summit Ridge facility will not adversely impact
4 visual resources identified as significant by the Sherman County Comprehensive Plan.
5

6 **IV.I.2 SCENIC RESOURCES: SITE CERTIFICATE CONDITIONS**

7 Based on the review of the information provided in Exhibit R of the ASC and other evidence in the
8 record, and to ensure compliance with the Scenic Resources Standard in OAR 345-022-0080, the Council
9 includes the following conditions in the site certificate:

10 IV.I.2.1 To reduce the visual impact of the facility, the certificate holder shall:

- 11 (a) Mount nacelles on smooth, steel structures, painted uniformly in a low-reflectivity,
12 neutral gray, white, or off-white color.
13 (b) Paint the substation structures in a low-reflectivity neutral color to blend with the
14 surrounding landscape.
15 (c) Not allow any advertising to be used on any part of the facility.
16 (d) Use only those signs required for facility safety, required by law or otherwise required by
17 this site certificate, except that the certificate holder may erect a sign near the O&M
18 building to identify the facility, may paint turbine numbers on each tower and may allow
19 unobtrusive manufacturers' logos on turbine nacelles.
20 (e) Maintain any signs allowed under this condition in good repair.
21 [Site Certificate Condition 6.15]

22 IV.I.2.2 The certificate holder shall design and construct the O&M building to be generally consistent
23 with the character of similar buildings used by commercial farmers or ranchers in the area and
24 shall paint the building in a low-reflectivity, neutral color to blend with the surrounding
25 landscape. [Site Certificate Condition 6.16]

26 IV.I.2.3 The certificate holder shall not use exterior nighttime lighting except:

- 27 (a) The minimum turbine tower lighting required or recommended by the Federal Aviation
28 Administration.
29 (b) Safety and security lighting at the O&M facility and substation, if such lighting is
30 shielded or downward-directed to reduce offsite glare.
31 (c) Minimum lighting necessary for repairs or emergencies.
32 [Site Certificate Condition 6.26]

33 **IV.I.3 SCENIC RESOURCES: CONCLUSIONS OF LAW**

34 Based on the foregoing findings, and subject to compliance with the site certificate conditions,
35 the Council finds that the design, construction and operation of the facility, taking into account
36 mitigation, are not likely to result in significant adverse impact to scenic resources and values
37 identified as significant or important in local land use plans, tribal land management plans and federal
38 land management plans for any lands located within the analysis area, in compliance with the Scenic
39 Resources Standard.
40

³⁰⁵ Final ASC, Section R.5.3.9, p. 11

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1 **IV.J. RECREATION [OAR 345-022-0100]**

2 **OAR 345-022-0100**

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

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

9 *(b) The degree of demand;*

10 *(c) Outstanding or unusual qualities;*

11 *(d) Availability or rareness;*

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

13 * * *

14 **IV.J.1 RECREATION: FINDINGS OF FACT**

15 The applicant provided information about compliance with the Council's Recreation Standard in
16 Exhibit T of the application. The analysis area for the Recreation Standard is the area within the site
17 boundary and five miles from the site boundary.

18 The area within the site boundary is privately owned, and it contains no County, State or federally
19 designated lands or recreational facilities. Recreational activities in the analysis area include upland bird
20 and big game hunting, rafting, boating, fishing, sightseeing, nature and wildlife photography, camping,
21 and bicycling. Horseback riding and hiking occur on a limited basis, and water-based recreation activities
22 occur on the Deschutes River.³⁰⁶ Similar opportunities for each of these activities are available on public
23 and private lands outside the analysis area.

24 **IV.J.1.a. Deschutes River Corridor**

25 The Deschutes River within the analysis area is designated as a federal Wild and Scenic River,
26 classified as a recreational river area, and a State Scenic Waterway. A section of the Deschutes River
27 within the analysis area is also part of the Lower Deschutes Wildlife Area. Public access within the
28 analysis area is generally gained via the Lower Deschutes River Back Country Byway, which follows
29 a BLM road along the east bank of the River ending at Mack's Canyon. Very limited access on the
30 west side of the river is provided by county roads. Otherwise access is limited to boat, foot,
31 horseback, or mountain bike, via a series of trails on the east side of the River.

32 Primary recreational uses include boating, rafting, fishing, hiking, and camping in developed
33 campgrounds and primitive campsites. Secondary uses include upland bird hunting, sightseeing, and
34 nature/wildlife photography. Use levels are generally moderate to high, varying throughout the year
35 with peaks during rafting and fishing seasons.³⁰⁷

36 Due to the high degree of demand, the outstanding quality, uncommon availability and
37 irreplaceable opportunity, the Council finds that the site offers an important recreational opportunity.

38 **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

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1 Mack's Canyon was identified as a Special Management Area for its unusual prehistoric
2 significance in the Two Rivers Resource Management Plan. The area contains the evidence of winter
3 dwellings of native peoples. Round pit-house remnants were unearthed and documented in the late
4 1960s.³⁰⁸ The site is also listed in the National Register of Historic Places.³⁰⁹ Due to the uncommon
5 availability and irreplaceable opportunity, the Council finds that the site offers an important
6 recreational opportunity.

7 **IV.J.1.c. Lower Deschutes Back Country Byway**

8 This BLM road winds along the east bank of the Deschutes from near the town of Maupin
9 northward, terminating at Mack's Canyon Recreation Area. The narrow gravel road is a popular
10 river-access point for anglers and boaters. Other recreational uses include wildlife viewing, hiking,
11 and upland bird hunting access. There are no developed viewpoints or waysides in the analysis
12 area.³¹⁰ The byway has outstanding quality since it follows the bank of the Deschutes River,
13 providing scenic, recreational and wildlife viewing opportunities, and use levels are moderate. Due to
14 the degree of demand and the outstanding quality, the Council finds that the site offers an important
15 recreational opportunity.

16 **IV.J.1.d. Wasco County Scenic Highway Segments**

17 The Wasco County Comprehensive Plan (WCCP) identified portions of several highways within
18 the county as scenic highway corridors. A portion of one scenic highway occurs within the recreation
19 analysis area: US Highway 197 between Fivemile Creek and the town of Dufur. The primary
20 recreational use includes road touring. There are no developed viewpoints along this portion of the
21 highway.³¹¹ The highway is adjacent to scenic areas, historic sites, and areas of natural beauty. The
22 applicant characterizes the highway as having a moderate demand, possessing an outstanding quality,
23 somewhat uncommon availability, but a replaceable opportunity. The Council finds the Wasco
24 County Scenic Highway as an important recreational opportunity according to the factors listed in the
25 Recreation Standard.

26 Based on the noise analysis conducted for the proposed facility, noise would not be audible from any
27 important recreational opportunities in the analysis area.

28 US Highway 197 is the primary access route linking the facility site to other local highways.
29 Construction-related traffic may cause short-term traffic delays when trucks deliver construction-related
30 equipment and the turbines, but those delays will be temporary and are not anticipated to have an adverse
31 impact on highways or overall traffic movement in the facility area. Traffic impact to all recreational
32 opportunities during operation of the proposed facility would be negligible.

33 Visual simulations provided by the applicant confirm that portions of turbines will be intermittently
34 visible from various locations along the Deschutes River, including areas along the Deschutes
35 Backcountry Scenic Byway that parallels the river between Maupin and Mack's Canyon. Portions of
36 some turbines may be visible in the vicinity of Mack's Canyon Archeological and Recreational Area.
37 Visible portions of turbines may include turbine blades, nacelles, and in some cases, portions of the tower.
38 It is possible that several turbines visible from the Deschutes River will require FAA lighting, thus
39 increasing impacts to the night sky. Generally, views of turbines would be limited to views of blades at
40 distances of two or more miles. While turbines will be visible from the Deschutes River, they would not

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

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1 dominate views and would generally be subordinate to the surrounding landscape. Therefore, the visual
2 impacts of the proposed facility on recreational opportunities in the analysis area would be negligible.³¹²

3 **IV.J.2 RECREATION: SITE CERTIFICATE CONDITIONS**

4 The Council is not requiring additional site certificate conditions specifically related to the
5 compliance with the Recreation Standard.

6 **IV.J.3 RECREATION: CONCLUSIONS OF LAW**

7 Based on the foregoing findings, the Council finds that the design, construction, and operation of the
8 facility, taking into account mitigation, are not likely to result in a significant adverse impact to the
9 important recreational opportunities identified in the analysis area, and therefore the proposed facility
10 complies with the Recreation Standard.
11

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.

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1 **IV.K. PUBLIC HEALTH AND SAFETY STANDARDS [OAR 345-024-0010]**

2 **OAR 345-024-0010**

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

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

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

11 **IV.K.1 PUBLIC HEALTH AND SAFETY: FINDINGS OF FACT**

12 The applicant addressed the Public Health and Safety Standards for Wind Energy Facilities in Exhibit
13 DD of the application. Because the proposed facility would be located on private property, public access
14 would be restricted. The Council includes the site certificate conditions described below to address safety
15 issues associated with wind energy facilities.

16 Turbine blade tips would be a minimum of 29.5 meters above ground at the closest point of rotation
17 (80 meter hub height with 101 meter rotor diameter). The turbine towers would have no exterior ladders
18 or access to the turbine blades, and tower entry doors would be locked (Condition IV.K.2.1).³¹³ There
19 would be no public access to the nacelles or turbine tower interiors or to the electrical equipment
20 contained therein. Pad-mounted step-up transformers would be located within locked cabinets (Condition
21 IV.K.2.2). The proposed substation site would be enclosed with fencing and would have locked gates
22 (Condition IV.K.2.3).³¹⁴

23 Both the Federal Aviation Administration (FAA) and the Oregon Department of Aviation are
24 responsible for determining whether any turbine tower presents a hazard to aviation in Oregon.³¹⁵
25 Condition IV.K.2.4 requires the certificate holder to submit a Notice of Proposed Construction or
26 Alteration to the FAA and to the Oregon Department of Aviation for each turbine location when the final
27 design configuration of the facility is known. The notice identifies the proposed final location of each
28 turbine and met tower. After receiving the notices, the FAA conducts a flight path review to determine
29 whether the proposed turbine locations would interfere with public or private air traffic. If the FAA finds
30 that a proposed turbine would not present a safety hazard, the FAA issues a "Determination of No Hazard
31 to Air Navigation" letter. The certificate holder must receive the FAA determination before beginning
32 construction of each turbine. Similarly, in response to a Notice of Proposed Construction or Alteration,
33 the Oregon Department of Aviation makes a determination whether the proposed construction would be a
34 hazard to air navigation and whether further aeronautical study is necessary.³¹⁶

35 Based on site-specific geotechnical investigation, turbine towers and foundations and aboveground
36 transmission line support structures will be designed according to applicable building codes to avoid
37 dangers to human safety presented by structural failure or collapse and seismic hazards (see conditions in
38 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

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1 handling instructions and procedures to prevent damage to towers or blades that could lead to failure
2 (Condition IV.K.2.5).³¹⁷

3 During operation, the certificate holder is required to have a safety-monitoring program and to
4 inspect turbine blades on a regular basis for signs of wear (Condition IV.K.2.6). All turbines are proposed
5 to have self-monitoring devices, which shall be linked to sensors at the O&M building to alert operators
6 to potentially dangerous conditions (Condition IV.K.2.7).

7 Condition IV.K.2.8 incorporates the language of Council rule OAR 345-026-017 and requires the
8 certificate holder to notify the Department and Wasco County within 72 hours if there is an attempt by
9 anyone to interfere with the safe operation of the facility, if there is a natural or human-caused event that
10 could threaten public health or safety, or if there is any fatal injury at the facility.³¹⁸

11 **IV.K.2 PUBLIC HEALTH AND SAFETY: SITE CERTIFICATE CONDITIONS**

12 Based on the review of the information provided in Exhibit DD of the ASC and other evidence in the
13 record, and to ensure compliance with the Public Health and Safety Standards in Oar 345-024-0010, the
14 Council includes the following conditions in the site certificate:

15 IV.K.2.1 The certificate holder shall construct turbine towers with no exterior ladders or access to the
16 turbine blades and shall install locked tower access doors. The certificate holder shall keep
17 tower access doors locked at all times, except when authorized personnel are present. [Site
18 Certificate Condition 7.1]

19 IV.K.2.2 For turbine types having pad-mounted step-up transformers, the certificate holder shall
20 install the transformers at the base of each tower in locked cabinets designed to protect the
21 public from electrical hazards and to avoid creation of artificial habitat for raptor prey. [Site
22 Certificate Condition 7.2]

23 IV.K.2.3 To protect the public from electrical hazards, the certificate holder shall enclose the facility
24 substation with appropriate fencing and locked gates. [Site Certificate Condition 7.3]

25 IV.K.2.4 Before beginning construction, the certificate holder shall submit a Notice of Proposed
26 Construction or Alteration to the Federal Aviation Administration (FAA) and the Oregon
27 Department of Aviation identifying the proposed final locations of turbine towers and
28 meteorological towers. The certificate holder shall promptly notify the Department of the
29 responses from the FAA and the Oregon Department of Aviation. [Site Certificate Condition 5.4]

30 IV.K.2.5 The certificate holder shall follow manufacturers' recommended handling instructions and
31 procedures to prevent damage to turbine or turbine tower components that could lead to
32 failure. [Site Certificate Condition 7.4]

33 IV.K.2.6 The certificate holder shall have an operational safety-monitoring program and shall inspect
34 all turbine and turbine tower components on a regular basis. The certificate holder shall
35 maintain or repair turbine and turbine tower components as necessary to protect public
36 safety. [Site Certificate Condition 7.5]

37 IV.K.2.7 The certificate holder shall install and maintain self-monitoring devices on each turbine,
38 linked to sensors at the operations and maintenance building, to alert operators to potentially
39 dangerous conditions, and the certificate holder shall immediately remedy any dangerous
40 conditions. The certificate holder shall maintain automatic equipment protection features in

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."

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1 each turbine that would shut down the turbine and reduce the chance of a mechanical
2 problem causing a fire. [Site Certificate Condition 7.6]

3 IV.K.2.8 The certificate holder shall notify the Department of Energy and Wasco County within 72
4 hours of any occurrence involving the facility if:

- 5 (a) There is an attempt by anyone to interfere with its safe operation;
6 (b) A natural event such as an earthquake, flood, tsunami or tornado, or a human-caused
7 event such as a fire or explosion affects or threatens to affect the public health and
8 safety or the environment;
9 (c) There is a mechanical failure or accident on the site associated with construction or
10 operation of the facility that may result in public health and safety concerns; or
11 (d) There is any fatal injury at the facility.
12 [Site Certificate Condition 7.7]

13 **IV.K.3 PUBLIC HEALTH AND SAFETY: CONCLUSIONS OF LAW**

14 Based on the foregoing findings and subject to compliance with the conditions, the Council finds
15 that the applicant can design, construct and operate the facility to exclude members of the public from
16 close proximity to the turbine blades and electrical equipment. The Council also finds that the applicant
17 can design, construct and operate the facility to preclude structural failure of the tower or blades that
18 could endanger public safety, and to have adequate safety devices and testing procedures designed to
19 warn of impending failure and to minimize the consequences of such failure, in compliance with the
20 Public Health and Safety Standards for Wind Energy Facilities.
21

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1 **IV.L. SITING STANDARDS FOR WIND ENERGY FACILITIES [OAR 345-024-0015]**

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

5 *(1) Using existing roads to provide access to the facility site, or if new roads are needed,*
6 *minimizing the amount of land used for new roads and locating them to reduce adverse*
7 *environmental impacts.*

8 *(2) Using underground transmission lines and combining transmission routes.*

9 *(3) Connecting the facility to existing substations, or if new substations are needed, minimizing*
10 *the number of new substations.*

11 *(4) Designing the facility to reduce the risk of injury to raptors or other vulnerable wildlife in*
12 *areas near turbines or electrical equipment.*

13 *(5) Designing the components of the facility to minimize adverse visual features.*

14 *(6) Using the minimum lighting necessary for safety and security purposes and using techniques*
15 *to prevent casting glare from the site, except as otherwise required by the Federal Aviation*
16 *Administration or the Oregon Department of Aviation.*

17 **IV.L.1 WIND ENERGY FACILITY SITING STANDARDS: FINDINGS OF FACT**

18 The applicant addressed the Siting Standards for Wind Energy Facilities in Exhibit DD of the
19 Final ASC. Exhibit DD contains information regarding the measures specified in the standard to reduce
20 cumulative adverse environmental effects.

21 **IV.L.1.a. Access Roads**

22 The applicant proposes to use existing Wasco County roads to gain access to the proposed
23 Summit Ridge facility, and does not propose any new roads to gain access to the site. The applicant
24 does propose approximately 19 miles of new roads on-site, to allow travel to the different
25 components of the proposed facility.³¹⁹ Condition IV.D.2.7 requires the applicant to minimize the
26 amount of new road constructed in order to minimize impacts to the site. The applicant proposes to
27 use existing roads to the maximum extent possible, and to construct roads to a cross-section
28 incorporating 20 feet of gravel with 10 foot compacted shoulders during construction to allow crane
29 access along maintenance roads and thereby eliminate the need to construct crane paths.³²⁰ The
30 applicant proposes to restore these 10 foot shoulders after the construction phase of the project in
31 accordance with the *Revegetation and Weed Control Plan*, Exhibit 1 to this Final Order.

32 **IV.L.1.b. Transmission Lines and Substations**

33 This standard encourages the applicant to use underground transmission lines, combine
34 transmission routes and minimize the number of new substations. The proposed facility includes an
35 underground and aboveground 34.5 kV onsite collection system, a facility substation, and eight
36 miles of 230 kV overhead transmission line leading to an interconnection substation at the point of
37 connection to the BPA Big Eddy to Maupin-Redmond line.³²¹

38 The applicant stated that some portions of the collector system may be located aboveground if
39 necessary due to site conditions that make it infeasible to run collector cable underground; the

³¹⁹ Final ASC, Section W.3, p. 1

³²⁰ Final ASC, Section K.3.2, p. 4

³²¹ Final ASC, Section DD.2, p. 2

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1 applicant stated that it anticipated no more than 10 percent of the collector system will be located
2 aboveground. The Council includes Condition VI.D.2.1, which limits the amount of aboveground
3 34.5 kV collector line to a total of five miles.

4 **IV.L.1.c. Wildlife Protection**

5 The standard encourages facility design that reduces the risk of injury to raptors or other
6 vulnerable wildlife in areas near turbines or electrical equipment. A detailed discussion of impacts
7 and mitigation of potential adverse impacts to wildlife are discussed with the Threatened and
8 Endangered Species Standard in Section IV.H of this document, and the Fish and Wildlife Habitat
9 Standard in Section IV.G. The applicant proposes to design the facility to minimize raptor injury by
10 adhering to the 2006 Avian Powerline Interaction Committee suggested practices for raptor
11 protection on power lines.³²² In addition, for turbine types having pad-mounted step-up transformers,
12 the transformer cabinets at each turbine would be designed to avoid use by raptors or prey species as
13 artificial habitat (Condition IV.K.2.2). Turbine pad areas would have a 15-foot gravel apron on all
14 sides of the turbine tower for fire protection and to help to reduce weeds and reduce cover for raptor
15 prey near turbines (Condition V.C.2.8). The proposed turbine towers would be smooth steel
16 structures rather than lattice structures, limiting avian perching opportunities in proximity to turbine
17 blades (Condition IV.H.2.1). Condition IV.H.2.1 also requires that met towers be freestanding
18 structures without guy lines.

19 **IV.L.1.d. Visual Features**

20 The standard encourages the certificate holder to design the proposed facility to minimize
21 adverse visual features. Turbine towers, nacelles, and rotors would be uniformly painted in a neutral
22 white color (Condition IV.I.2.1). Pad-mounted cabinets at the base of each turbine tower would be
23 uniformly painted in a neutral gray, white, off-white or earth-tone color to help them blend into the
24 landscape. Low-reflectivity finishes would be used on the O&M building and substation equipment
25 and fencing.³²³ No advertising signs would be posted at the facility. Signs would be minimized, and
26 the facility would not include any unusual visual features.³²⁴

27 **IV.L.1.e. Lighting**

28 The standard requires the use of the minimum lighting necessary for safety and security
29 purposes and the use of techniques to prevent casting glare from the site. The standard does not
30 restrict the use of lighting otherwise required by the FAA or the Oregon Department of Aviation.
31 The facility would have the minimum nighttime turbine tower lighting required by the FAA. The
32 O&M building and the substation would have security lighting that would be shielded or downward-
33 directed to reduce glare.³²⁵ During construction, lighting would be restricted to the minimum
34 necessary for construction, directed to illuminate the work area and shielded or downward-directed
35 to reduce glare. Minimum lighting would be used for necessary nighttime repairs during operation.
36 The Council includes Conditions IV.D.2.3 and IV.I.2.3 to address restrictions on lighting at the
37 facility.
38

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

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1 **IV.L.2 WIND ENERGY FACILITY SITING STANDARDS: SITE CERTIFICATE CONDITIONS**

2 Because there are numerous site certificate conditions imposed elsewhere in this Order that address
3 the requirements directly applicable to this standard, the Council is not requiring additional conditions
4 specifically related to the compliance with the Wind Energy Facility Siting Standards.

5 **IV.L.3 WIND ENERGY FACILITY SITING STANDARDS: CONCLUSIONS OF LAW**

6 Based on the foregoing findings, the Council finds that the proposed design, construction, and
7 operation of the proposed Summit Ridge facility would minimize cumulative adverse environmental
8 effects in the vicinity by practicable measures in compliance with the requirements of the Council's Siting
9 Standards for Wind Energy Facilities in OAR 345-024-0015.

10

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1 **IV.M. SITING STANDARDS FOR TRANSMISSION LINES [OAR 345-024-0090]**

2 **OAR 345-024-0090**

3 *To issue a site certificate for a facility that includes any high voltage transmission line under*
4 *Council jurisdiction, the Council must find that the applicant:*

5 (1) *Can design, construct and operate the proposed transmission line so that alternating current*
6 *electric fields do not exceed 9 kV per meter at one meter above the ground surface in areas*
7 *accessible to the public;*

8 (2) *Can design, construct and operate the proposed transmission line so that induced currents*
9 *resulting from the transmission line and related or supporting facilities will be as low as*
10 *reasonably achievable.*

11 **IV.M.1 TRANSMISSION LINE SITING STANDARD: FINDINGS OF FACT**

12 The applicant provided information on the Siting Standards for Transmission Lines in Exhibit AA of
13 the application. These standards address safety hazards associated with electric fields around transmission
14 lines. Section (1) of OAR 345-024-0090 sets a limit for electric fields from transmission lines of not more
15 than 9 kV per meter at one meter above the ground surface in areas that are accessible to the public.
16 Section (2) requires measures to reduce the risk of induced current.

17 **IV.M.1.a. Electric Fields**

18 The proposed Summit Ridge facility includes underground and aboveground 34.5 kV collector
19 lines and one approximately eight-mile segment of aboveground 230 kV transmission line. The
20 electric field associated with the underground lines is contained within the insulation of the cable and
21 the soil over the line. Due to this soil and insulation there would be no measurable electric field at
22 the surface (or at one meter above the ground surface).

23 The applicant calculated the electric field that would be produced by the both the aboveground
24 34.5 kV collector lines and the proposed 230 kV transmission line using BPA's Corona and Field
25 Effect Program (Version 3).³²⁶ The assumed peak line loading for the aboveground 34.5 kV collector
26 lines was 600 amperes per phase. The minimum conductor ground clearance was assumed to be 20
27 feet. For the 34.5 kV collector lines, the calculated maximum electric field strength at one meter
28 above ground surface was roughly 0.5 kV per meter.³²⁷

29 For the 230 kV transmission line, the assumed peak line loading was 502 amperes per phase and
30 the assumed minimum ground clearance was 25 feet. The calculated maximum electric field
31 strength at one meter above ground surface was 3.6 kV per meter.³²⁸

32 **IV.M.1.b. Induced Current**

33 The magnetic and electric fields around alternating current transmission lines can induce current
34 or voltage in nearby objects. Induced currents are not hazardous to people but can be a concern for
35 railroad communications and cathodic protection systems for pipelines that parallel transmission
36 lines. An ungrounded fence or metal roof located within an electric field can carry an induced
37 voltage. Induced voltage can be a hazard when the ungrounded object is shorted to ground. The
38 induced voltage can result in an electrical shock when a person or animal touches the object, which
39 allows a current to flow to the ground. Grounding of potentially charged structures minimizes the
40 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

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1 minimizes the current that would otherwise flow through a person or animal that comes in contact
2 with the object. Because the underground 34.5 kV cables do not create an electric field at the ground
3 surface, they would not present an induced voltage risk. The proposed aboveground 34.5 kV and
4 230 kV transmission lines could cause induced voltage. Condition IV.M.2.2 requires the certificate
5 holder to develop and implement a program to prevent hazards from induced voltage. To ensure
6 compliance with Condition IV.M.2.2, the Council also includes Condition IV.M.2.3, requiring the
7 certificate holder to maintain a copy of its electrical protection plan at the O&M building and to
8 make it available upon request by ODOE staff.

9 The Council finds that the applicant can design, construct and operate the proposed transmission
10 line so that alternating current electric fields do not exceed 9 kV per meter at one meter above the
11 ground surface in areas accessible to the public and that induced currents from the proposed
12 transmission will be as low as reasonably achievable.

13 **IV.M.2 TRANSMISSION LINE SITING STANDARD: SITE CERTIFICATE CONDITIONS**

14 Council rule OAR 345-027-0023(4) provides standard condition language to address public
15 safety for transmission lines, including the requirement to design transmission lines and implement
16 programs that reduce the risks from induced current. In compliance with this requirement, and based
17 on the information provided in Exhibit AA of the ASC and other evidence in the record, and to
18 ensure compliance with the Transmission Line Siting Standard, the Council includes the following
19 conditions in the site certificate:

20 IV.M.2.1 The certificate holder must design, construct and operate the transmission line in
21 accordance with the requirements of the National Electrical Safety Code (American
22 National Standards Institute, Section C2, 1997 Edition). [Site Certificate Condition 6.6]
23 [Mandatory Condition OAR 345-027-0023(4)(a)]

24 IV.M.2.2 The certificate holder must develop and implement a program that provides reasonable
25 assurance that all fences, gates, cattle guards, trailers, or other objects or structures of a
26 permanent nature that could become inadvertently charged with electricity are grounded
27 or bonded throughout the life of the line. [Site Certificate Condition 7.10]
28 [Mandatory Condition OAR 345-027-0023(4)(b)]

29 IV.M.2.3 A current copy of the electrical protection plan developed in compliance with Condition
30 IV.M.2.2 must be available at the O&M building and provided upon request by ODOE
31 staff. [Site Certificate Condition 7.11]

32 **IV.M.3 TRANSMISSION LINE SITING STANDARD: CONCLUSIONS OF LAW**

33 Based on the foregoing findings, and subject to compliance with the site certificate conditions,
34 the Council finds that the design, construction, and operation of the transmission line for the
35 proposed facility will not result in alternating current electric fields that exceed 9 kV per meter at
36 one meter above the ground surface in areas accessible to the public and that induced currents
37 resulting from the transmission lines will be as low as reasonably achievable and, therefore, the
38 proposed facility complies with the Siting Standards for Transmission Lines.

1 **V. STANDARDS NOT APPLICABLE TO SITE CERTIFICATE ELIGIBILITY**

2 Under ORS 469.501(4), the Council may not approve or deny a site certificate based on the
3 Council's Structural Standard; Historic, Cultural and Archaeological Resources Standard; Public Services
4 Standard; or Waste Minimization Standard. However, the Council may impose site certificate conditions
5 based on the requirements of these standards.

6 **V.A. STRUCTURAL STANDARD [OAR 345-022-0020]**

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

9 (a) *The applicant, through appropriate site-specific study, has adequately characterized the site*
10 *as to Maximum Considered Earthquake Ground Motion identified at International Building*
11 *Code (2003 Edition) Section 1615 and maximum probable ground motion, taking into*
12 *account ground failure and amplification for the site specific soil profile under the maximum*
13 *credible and maximum probable seismic events; and*

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

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

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

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

29 * * *

30 **V.A.1 STRUCTURAL STANDARD: FINDINGS OF FACT**

31 The applicant provided information regarding the seismic characteristics of the site and possible
32 seismic and geological hazards in Exhibit H of the application. The proposed Summit Ridge facility site
33 is located in the Columbia Plateau Physiographic Province, which consists of a large plateau underlain by
34 a series of basalt flows. The top of the plateau tends to be relatively flat, but ephemeral streams have
35 dissected the plateau into steep-sided canyons. The Deschutes River canyon forms the eastern boundary
36 of the site; drainages on the east and southeast portions of the site flow toward the Deschutes River, and
37 drainages on the west and northwest portions of the site flow toward Fifteen Mile Creek. Elevations at
38 the site range from approximately 270 feet at the Deschutes River to 2,800 feet on the top of the
39 plateau.³²⁹

40 The applicant's consultant (CH2M HILL) conducted a limited geotechnical and geological site
41 reconnaissance to supplement a literature review.³³⁰ Three sources of potential seismic hazards were

³²⁹ Final ASC, Section H.2.1, p. 2

³³⁰ Final ASC, Section H.3.2, p. 5

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1 identified in the proposed project area: interplate events in the Cascadia Subduction Zone, intraslab events
2 within the Cascadia Subduction Zone, and crustal events.³³¹ CH2M HILL reported that ruptures of the
3 interplate or intraslab Cascadia Subduction Zone could result in earthquakes with a moment magnitude of
4 approximately 9.0 or 7.5, respectively.³³² The third potential source of earthquakes was identified as
5 movement along crustal faults. In the vicinity of the proposed facility, earthquakes occur within the crust
6 of the North American tectonic plate when built-up stresses near the surface are released through fault
7 rupture.³³³

8 Under OAR 345-021-0010(1)(h)(F)(ii), the Council requires applicants to identify earthquake
9 sources capable of generating median peak ground accelerations (PGA) greater than 0.05g³³⁴ on rock at
10 the site.³³⁵ Based on its calculations CH2M HILL characterized the risk of seismic hazards at the
11 proposed facility as “low,” considering the potential for fault displacements, the behavior of subsurface
12 materials, and the depth of groundwater in the area.³³⁶

13 CH2M HILL assessed the risk of non-seismic geological hazards, such as landslides, erosion
14 potential, collapsing soils and volcanic eruptions; the risks of non-seismic geological hazards were
15 characterized as low.³³⁷ The proposed facility layout is designed to avoid steep slopes and drainages that
16 could be subject to debris flows, rockfalls, landslides, and soil creep.³³⁸

17 The soils within the site boundary are susceptible to erosion from wind and water. The applicant
18 characterized the soils on the site as moderate to highly erodible by sheet erosion and rill erosion by
19 water; the applicant indicated that the soils on site have a low to moderate susceptibility to wind
20 erosion.³³⁹ Silty soils are sometimes susceptible to collapse and/or piping. The loess in the area is
21 typically silty in composition and susceptible to piping or collapse; however, on the project site, loess is
22 either very thin or absent, so the risk of piping or collapse is very low.³⁴⁰

23 Direct or indirect effects could also be experienced at the proposed site as a result of volcanic
24 eruption. Mount St. Helens, which erupted in 1980, is approximately 75 miles from the site. Other
25 volcanoes considered to be active are within 100 miles from the site, including Mount Jefferson, Mount
26 Adams, and Mount Hood.³⁴¹

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

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1 The applicant consulted with the Oregon Department of Geology and Mineral Industries (DOGAMI)
2 regarding the appropriate scope and methods for on-site geotechnical investigations.³⁴² The applicant
3 states that it will conduct a detailed geotechnical exploration of the facility site prior to construction. The
4 exploration would assess subsurface soil and geologic conditions and provide information that would be
5 used to identify geological or geotechnical hazards. The applicant proposes to use this information to
6 design turbine foundations and foundations of related and supporting facilities and to design the
7 installation of underground collector cables and overhead collector and transmission lines.

8 **V.A.2 STRUCTURAL STANDARD: SITE CERTIFICATE CONDITIONS**

9 Based on its review of the information in Exhibit H of the ASC, the foregoing findings and other
10 evidence in the record, and, in accordance with ORS 469.501(4) and OAR 345-022-0020(2), the Council
11 includes the following site certificate conditions to address potential seismic and non-seismic geologic
12 hazards at the site:

- 13 V.A.2.1 Before beginning construction, the certificate holder must conduct a site-specific geotechnical
14 investigation and report its findings to the (DOGAMI) and the Department. The certificate
15 holder shall conduct the geotechnical investigation after consultation with DOGAMI and in
16 general accordance with DOGAMI open file report 00-04 "Guidelines for Engineering
17 Geologic Reports and Site-Specific Seismic Hazard Reports." [Site Certificate Condition 5.8]
- 18 V.A.2.2 The certificate holder shall notify the Department, the State Building Codes Division and
19 DOGAMI promptly if site investigations or trenching reveal that conditions in the foundation
20 rocks differ significantly from those described in the application for a site certificate. After the
21 Department receives the notice, the Council may require the certificate holder to consult with
22 the DOGAMI and the Building Codes Division and to propose mitigation actions. [Site
23 Certificate Condition 6.13]
24 [Mandatory Condition OAR 345-027-0020(13)]
- 25 V.A.2.3 The certificate holder shall notify the Department, the State Building Codes Division and
26 DOGAMI promptly if shear zones, artesian aquifers, deformations or clastic dikes are found at
27 or in the vicinity of the site. [Site Certificate Condition 6.14]
28 [Mandatory Condition OAR 345-027-0020(14)]
- 29 V.A.2.4 The certificate holder shall design and construct the facility in accordance with requirements
30 set forth by the Oregon Building Codes Division and any other applicable codes and design
31 procedures. [Site Certificate Condition 6.8]
- 32 V.A.2.5 The certificate holder shall design, engineer and construct the facility to avoid dangers to
33 human safety presented by non-seismic hazards. As used in this condition, "non-seismic
34 hazards" include settlement, landslides, flooding and erosion. [Site Certificate Condition 6.10]
- 35 V.A.2.6 The certificate holder shall design, engineer and construct the facility to avoid dangers to
36 human safety presented by seismic hazards affecting the site that are expected to result from
37 all maximum probable seismic events. "Seismic hazard" includes ground shaking, landslide,
38 liquefaction, lateral spreading, tsunami inundation, fault displacement and subsidence. [Site
39 Certificate Condition 6.11]
40 [Mandatory Condition OAR 345-027-0020(12)]
41

³⁴² Final ASC, Section H.4, p. 5

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1 **V.B. HISTORIC, CULTURAL AND ARCHAEOLOGICAL RESOURCES [OAR 345-022-0090]**

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

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

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

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

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

14 * * *

15 **V.B.1 HISTORIC, CULTURAL AND ARCHAEOLOGICAL RESOURCES: FINDINGS OF FACT**

16 The applicant provided information regarding historic, cultural, and archaeological resources in
17 Exhibit S of the application. The analysis area for potential impacts to these resources is the area within
18 the site boundary, which is entirely composed of private lands.

19 The applicant engaged AMEC Earth and Environmental (AMEC) to conduct a survey for historic,
20 cultural, and archaeological resources; the study area included a 400-foot wide corridor centered on the
21 proposed turbine locations³⁴³ and a 1,000-foot wide corridor centered on the proposed transmission
22 line.³⁴⁴ AMEC reviewed archaeological records maintained by SHPO relevant to the proposed site of the
23 Summit Ridge facility and also reviewed General Land Office maps, photographs, and historic archival
24 materials available at The Dalles Public Library.³⁴⁵ Background research was accompanied by two
25 pedestrian surveys of the subject site. AMEC surveyed the proposed wind farm area in May 2009, and
26 surveyed the proposed transmission line site in November 2009.

27 The proposed Summit Ridge facility site is located within the traditional territory of the Confederated
28 Tribes of the Warm Springs Reservation (CTWSR). In addition, the Confederated Tribes of the Umatilla
29 Indian Reservation, the Confederated Tribes of the Siletz, and the Confederated Tribes of Grand Ronde
30 were identified as potentially interested parties. The applicant contacted these entities, and received a
31 response from the Confederated Tribes of Grand Ronde indicating that this project was outside of their
32 area of interest, and from the CTWSR indicating an interest in the project. AMEC contacted a CTWSR
33 representative to follow up on May 29, 2009. The representative confirmed that the CTWSR are
34 interested in the project; consultation with the CTWSR is ongoing.³⁴⁶

35 The pedestrian field surveys performed at the site identified 19 prehistoric archaeological sites, one
36 historic archaeological site, 30 isolated finds, and five historic buildings/building complexes. Fourteen of
37 the prehistoric archaeological sites identified are significant and are possibly eligible for listing on the

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.*

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1 NRHP. One historic building, the Center Ridge Schoolhouse, is possibly eligible for NRHP listing.³⁴⁷ No
2 resources that are already identified on the NRHP were identified at the subject site.

3 The applicant states that all identified sites were considered significant and that the proposed turbine
4 locations were redesigned to avoid encroachment to any site.³⁴⁸ Isolated finds are not eligible for listing
5 on the NRHP, so no action was necessary to mitigate these finds.³⁴⁹ The applicant proposes a 100-foot
6 avoidance buffer for all lithic scatter sites, and a 200-foot buffer around rock feature sites.³⁵⁰ The Council
7 includes Condition V.B.2.1, which incorporates the avoidance measures proposed by the applicant.

8 The applicant proposes to avoid all identified archaeological or cultural sites, regardless of eligibility
9 for listing on the NRHP.³⁵¹ The applicant also proposes to employ an archaeological monitor to delineate
10 "no-work" areas around identified archaeological sites, closely monitor construction activity and identify
11 any inadvertent finds.³⁵² In accordance with Oregon law (ORS 97.745 and ORS 358.920), the applicant
12 proposes to cease all ground-disturbing activities in the immediate area if any archaeological or cultural
13 resources are found during construction of the facility until a qualified archaeologist can evaluate the
14 significance of the find.³⁵³

15 **V.B.2 HISTORIC, CULTURAL AND ARCHAEOLOGICAL RESOURCES: SITE CERTIFICATE**
16 **CONDITIONS**

17 Based on its review of the information in Exhibit S of the ASC, the foregoing findings and other
18 evidence in the record, and, in accordance with ORS 469.501 (4) and OAR 345-022-0090(2) the Council
19 includes the following site certificate conditions to address impacts of the facility on Historic, Cultural
20 and Archaeological Resources:

21 V.B.2.1 Before beginning construction, the certificate holder shall label all identified historic, cultural
22 or archaeological resource sites on construction maps and drawings as "no entry" areas. The
23 applicant shall implement a 200 foot buffer for all rock alignment and cairn sites, and shall
24 implement a 100 foot buffer for all other archaeological sites. The certificate holder may use
25 existing private roads within the buffer areas but may not widen or improve private roads
26 within the buffer areas. The no-entry restriction does not apply to public road rights-of-way
27 within the buffer areas. [Site Certificate Condition 11.1]

28 V.B.2.2 Before beginning construction, the certificate holder shall provide to the Department a map
29 showing the final design locations of all components of the facility, the areas that would be
30 temporarily disturbed during construction and the areas that were previously surveyed as
31 described in the Application for Site Certificate. [Site Certificate Condition 11.2]

32 V.B.2.3 The certificate holder shall hire qualified personnel to conduct field investigation of all areas to
33 be disturbed during construction that lie outside the previously-surveyed areas. The certificate
34 holder shall provide a written report of the field investigation to the Department and to the
35 Oregon State Historic Preservation Office (SHPO). If any potentially significant historic,
36 cultural or archaeological resource sites are found during the field investigation, the certificate
37 holder shall instruct all construction personnel to avoid the identified sites and shall implement
38 appropriate measures to protect the sites, including the measures described in Condition

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

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- 1 V.B.2.5 and in accordance with the Archaeological Monitoring Plan required per Condition
2 V.B.2.6. [Site Certificate Condition 11.3]
- 3 V.B.2.4 The certificate holder shall ensure that a qualified archaeologist, as defined in OAR 736-051-
4 0070, instructs construction personnel in the identification of cultural materials and avoidance
5 of accidental damage to identified resource sites. Records of such training shall be maintained
6 at the Operations and Maintenance Building and made available to authorized representatives
7 of the Oregon Department of Energy upon request. [Site Certificate Condition 11.4]
- 8 V.B.2.5 The certificate holder shall ensure that construction personnel cease all ground-disturbing
9 activities in the immediate area if any archaeological or cultural resources are found during
10 construction of the facility until a qualified archeologist can evaluate the significance of the
11 find. The certificate holder shall notify the Department and SHPO of the find. If the SHPO
12 determines that the resource is significant, the certificate holder shall make recommendations to
13 the Council for mitigation, including avoidance, field documentation and data recovery, in
14 consultation with the Department, SHPO, interested tribes and other appropriate parties. The
15 certificate holder shall not restart work in the affected area until the certificate holder has
16 demonstrated to the Department and the SHPO that it has complied with archaeological
17 resource protection regulations. [Site Certificate Condition 11.5]
- 18 V.B.2.6 The certificate holder shall prepare and implement an Archaeological Monitoring Plan for
19 construction and maintenance activities to address and mitigate impacts from exposure of
20 unanticipated or previously unidentified cultural properties that may be exposed during
21 construction or operation of the facility. A current copy of the plan must be maintained at the
22 Operations and Maintenance Building and made available to authorized representatives of the
23 Oregon Department of Energy upon request. [Site Certificate Condition 11.6]
24

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1 **V.C. PUBLIC SERVICES [OAR 345-022-0110]**

- 2 (1) *Except for facilities described in sections (2) and (3), to issue a site certificate, the Council*
3 *must find that the construction and operation of the facility, taking into account mitigation,*
4 *are not likely to result in significant adverse impact to the ability of public and private*
5 *providers within the analysis area described in the project order to provide: sewers and*
6 *sewage treatment, water, storm water drainage, solid waste management, housing, traffic*
7 *safety, police and fire protection, health care and schools.*
- 8 (2) *The Council may issue a site certificate for a facility that would produce power from wind,*
9 *solar or geothermal energy without making the findings described in section (1). However,*
10 *the Council may apply the requirements of section (1) to impose conditions on a site*
11 *certificate issued for such a facility.*

12 * * *

13 **V.C.1 PUBLIC SERVICES: FINDINGS OF FACT**

14 The applicant provided information in Exhibit U of the ASC about the potential impacts of the facility
15 on public services. The applicant's analysis area for public services is the area within the site boundary
16 and the area within a 30-mile radius of the site, which includes portions of Gilliam, Hood River, Sherman,
17 Wasco, and Klickitat (WA) counties. Exhibit U discusses each of the public services listed in the
18 sections below. Section U.5.12 of Exhibit U included a list of mitigation measures proposed by the
19 applicant.

20 In accordance with OAR 345-027-0020(10), in those cases where the applicant has proposed
21 measures in the ASC to mitigate impacts to the ability of providers in the analysis area to provide public
22 services, the Council deems the measures to be binding commitments by the applicant and includes the
23 measures as conditions within the site certificate.

24 **V.C.1.a. Sewage, Storm Water, and Solid Waste**

25 During construction of the Summit Ridge facility, the impact on sewage treatment will be
26 minimal. No community in the analysis area currently provides storm water drainage service or solid
27 waste management services to the facility site, with the exception of minimal storm water drainage
28 facilities associated with public roads maintained by Wasco County. Condition V.C.2.1 requires that
29 the certificate holder provide and maintain portable toilets for on-site sewage handling during
30 construction.³⁵⁴ During operation, sewage from the O&M buildings would be discharged to an on-site
31 septic system (Condition V.C.2.2).³⁵⁵

32 Condition IV.C.2.1 requires the certificate holder to conduct construction activities in accordance
33 with an NPDES 1200-C stormwater permit, which would ensure appropriate on-site handling of
34 storm water and measures to reduce erosion. The applicant must use appropriate measures to avoid or
35 reduce erosion from storm water run-off during construction and operation of the facility.³⁵⁶

36 Solid waste generated during construction and operation will be recycled to the extent practical.
37 Conditions V.D.2.1 and V.D.2.2, discussed in the following section (V.D.2, Waste Minimization)
38 requires the certificate holder to use licensed commercial waste-hauling services to remove non-
39 recycled solid waste to a local landfill.³⁵⁷ The nearest landfill is the Wasco County Landfill.

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

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1 **V.C.1.b. Water**

2 The applicant estimates that up to 90,000 gallons of water will be needed daily during peak
3 construction activity for dust control, road and earthwork compaction, and concrete mixing.³⁵⁸ The
4 applicant provided Attachment U-1, which is a letter dated July 30, 2009 from the City of The Dalles
5 stating that the city will provide this water during the construction phase of the proposed project.
6 Alternatively, the applicant could obtain water from an existing or newly constructed on-site well
7 under a limited license issued to the landowner or construction contractor.

8 During operation, less than 5,000 gallons of water per day will be needed for incidental uses
9 (kitchen and restroom) at the proposed O&M building.³⁵⁹ This water is proposed to come from a new
10 on-site well. Condition VI.C.2.1 discussed in Section VI.C (Groundwater Act) will limit the use of
11 well-water to no more than 5,000 gallons per day (the limit for industrial wells exempted from
12 OWRD license requirements). The facility's use of water during operation will have no impact on
13 municipal water systems. The small volume of water needed during facility operation is not likely to
14 have an impact on other wells that serve local landowners.

15 **V.C.1.c. Housing**

16 The applicant estimates that construction of the Summit Ridge facility will employ 26 (average
17 workforce) to 250 (maximum during peak construction months) resident and transient workers.³⁶⁰
18 Based on the assumption that up to 80 percent of the construction workforce will come from outside
19 the area, as many as 200 workers might need temporary housing.³⁶¹ Construction of the facility is
20 expected to take approximately 16 months. The applicant expects that most construction workers will
21 seek lodging in area motels and other temporary housing opportunities (e.g. trailer or RV parks).^{362 363}
22 The applicant estimates that, during operation, the Summit Ridge facility will employ approximately
23 26 people.³⁶⁴ Assuming that roughly 80% of these workers are new residents who move into the area,
24 the addition of roughly 20 households would not have a significant adverse effect on available
25 housing.³⁶⁵

26 **V.C.1.d. Police and Fire Protection**

27 Police services for the facility site will be provided by the Wasco County Sheriff's Office.
28 Backup law enforcement service is available from the Gilliam County Sheriff's Office, Hood River
29 County Sheriff's Office, and Sherman County Sheriff's Office.³⁶⁶ The applicant consulted the Wasco
30 County Sheriff's office about police services during construction and operation of the proposed
31 facility; which indicated that no adverse impacts are anticipated to police services in the area as a

³⁵⁸ Final ASC, Section U.4.3, p. 15

³⁵⁹ Final ASC, Section U.4.3, p. 15

³⁶⁰ Final ASC, Section U.4.6, p. 18 and Section U.4.6.1, p. 18

³⁶¹ Final ASC, Section U.4.6.1, p. 18

³⁶² Final ASC, Section U.4.6.1, p. 18

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.

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).

³⁶⁵ The applicant provided information about housing supply in the analysis area (Final ASC, Table U-3).

³⁶⁶ Final ASC, Section U.4.8, p. 20

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1 result of the proposed facility's construction or operation.³⁶⁷ Condition V.C.2.3 requires the
2 certificate holder to establish and maintain communication with the local law enforcement personnel
3 during construction and operation of the Summit Ridge facility.

4 The southern half of the site is not covered by either a rural fire protection district or a city's fire
5 department. Protection for non-structural fires in this area is provided by the U.S. Forest Service
6 (USFS), BLM or the Oregon Department of Forestry (ODF). Additional support is available from
7 other adjacent fire protection districts, the nearest being the City of Dufur Fire District.

8 The northern area of the Facility site lies within the Columbia Rural Fire District, which is a non-
9 tax fire district comprised of approximately 75 landowners. Member of this district rely on available
10 farm equipment, mainly 100-gallon water tanks placed in the back of trucks, for fire suppression. The
11 landowners occasionally receive assistance from outside the district. The ODF maintains a mutual
12 aid agreement with the district and BLM sometimes responds.³⁶⁸

13 The applicant provided a letter from the City of Dufur Fire District dated July 24, 2009, which
14 states that the Columbia Rural Fire District would be the first responder to a potential ground fire
15 while Dufur Fire would be the first responder for a structure fire. Dufur Fire would also be the first
16 responder in the event of a medical emergency occurring in the Summit Ridge area; however, the
17 district's ability to provide medical service is currently limited to ground rescue. Dufur Fire is not
18 equipped or trained for rope rescue operations.³⁶⁹ To accommodate this limited ability, the applicant
19 proposes to train and equip construction contractors and operations personnel for tower rescue.³⁷⁰
20 Conditions V.C.2.4 and V.C.2.5 require the certificate holder to provide appropriate tower rescue
21 training and equipment during construction and operation of the facility.

22 To minimize the potential of fires starting from construction-related activities, the applicant
23 proposes to established roads prior to construction to minimize vehicle contact with dry grass. Idling
24 vehicles in grassy areas will avoided; and open flames, such as cutting torches, will be kept away
25 from grassy areas. Staging areas will be graveled to minimize fire potential; in addition, a water truck
26 will be available on site to respond to any potential fire incidents. In the event of a critical injury,
27 helicopter service could be dispatched to the facility. Accident victims would be transported to the
28 Mid-Columbia Medical Center in The Dalles.³⁷¹ Conditions V.C.2.6 through V.C.2.11, related to
29 emergency response and fire protection at the proposed facility, ensure compliance with these
30 representations.

31 **V.C.1.e. Health Care**

32 Conditions V.C.2.4 and V.C.2.5 require the certificate holder to implement on-site health and
33 safety plans during construction and operation of the facility. The only full-service medical facility
34 located within the analysis area is the Mid-Columbia Medical Center, located in The Dalles. Other
35 hospitals located in the area include Providence Hood River Memorial Hospital, a 25-bed critical
36 access hospital located in Hood River, Klickitat Valley Hospital, which offers inpatient care and some
37 minor surgery services, and Skyline Hospital, a 32-bed facility located in White Salmon, WA.³⁷²
38 Ambulance service to the proposed project site would be provided by either the Moro Rural Fire
39 Protection District or the Dufur Fire District, which contracts with Mid-Columbia Fire and Rescue
40 (The Dalles) and the Dufur Volunteer Ambulance to provide ambulance service to areas adjacent to

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

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1 the site.^{373,374} The applicant does not anticipate that the number of construction workers temporarily
2 locating in the area and the number of permanent employees and their families moving into the area
3 will adversely affect the ability of these providers to deliver health services.³⁷⁵

4 **V.C.1.f. Schools**

5 The Dufur, South Wasco, and North Wasco School Districts provide the school services located
6 closest to the proposed project site.³⁷⁶ These school districts are currently experiencing growth in
7 student population; however, the proposed facility is not expected to have a significant impact in
8 student population in the analysis area. Construction workers who are not already living in the
9 analysis area are not likely to move their families to the area for the temporary duration of the work.
10 Facility construction, therefore, is not likely to increase the number of students attending area schools.
11 The estimated increase within the area of up to 20 new households during operation of the proposed
12 facility is not expected to have a significant adverse impact on local schools.³⁷⁷

13 **V.C.1.g. Traffic Safety**

14 The applicant expects that construction-related traffic will use I-84 and US Highway 197 to
15 access the proposed project site. From these highways, construction-related traffic is expected to use
16 Wasco County public roads to access the private land on which the proposed project is located.³⁷⁸
17 State designated rural collectors such as Emerson Loop Road and Boyd Loop Market Road could
18 potentially be used for access into northern and southern portions, respectively, of the Facility area.
19 Local roads are generally gravel rural roadways with little traffic other than local agricultural and
20 residential traffic. Portions of local roads that will be used include Fifteen Mile Road, Roberts
21 Market Road, Summit Ridge Market Road, Center Ridge Market Road, Old Tygh Market Road,
22 Wrentham Market Road, and Long Hollow Market Road.³⁷⁹ The applicant proposes to improve
23 roughly six miles of public roads to accommodate heavy equipment and construction traffic
24 associated with the proposed project.³⁸⁰

25 Private roads will also be used for access to turbines, laydown areas and the proposed O&M
26 facility on the site itself. The applicant proposes to use existing private roads to the extent possible
27 and proposes to construct approximately 19 miles of new private roads where necessary to access the
28 site.³⁸¹ New roads constructed to accommodate cranes and other large equipment will have a cross-
29 section that includes 20 feet of graveled surface with a 10-foot compacted shoulder on either side; at
30 the end of construction the new roadways will be removed, or at the request of the landowners the 10-
31 foot shoulders are proposed to be restored to farmable condition.³⁸²

32 Construction-related traffic may cause short-term traffic delays when trucks deliver construction-
33 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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1 adverse impact on traffic safety or the flow of traffic on local roads due to the low volume of traffic
2 on the roads on which delays will occur.³⁸³

3 Truck traffic during operations will be minimal. The applicant expects that typically there will be
4 two to three vehicles on-site to perform routine services and maintenance on the turbines.
5 Infrequently, larger delivery vehicles will be on site to deliver materials and parts to the turbines or
6 the O&M facility. Permanent staff for the proposed Summit Ridge facility, approximately 26 full and
7 part-time employees, will use the improved local road system.³⁸⁴ Because the traffic generated from
8 these employees is small and existing usage is low, no adverse impacts to the road system as a result
9 of new permanent staff are anticipated.

10 **V.C.2 PUBLIC SERVICES: SITE CERTIFICATE CONDITIONS**

11 Based on its review of the information in Exhibit U of the ASC, the foregoing findings of fact and
12 other evidence in the record, and in accordance with ORS 469.501(4) and OAR 345-022-0110 (2), the
13 Council includes the following site certificate conditions to address impacts of the facility on Public
14 Services:

15 V.C.2.1 The certificate holder shall provide portable toilets for on-site sewage handling during
16 construction and shall ensure that they are pumped and cleaned regularly by a licensed
17 contractor who is qualified to pump and clean portable toilet facilities. [Site Certificate
18 Condition 6.2]

19 V.C.2.2 During operation, the certificate holder shall discharge sanitary wastewater generated at the
20 Operations and Maintenance building to a licensed on-site septic system in compliance with
21 State of Oregon permit requirements. The certificate holder shall design the septic systems
22 for a discharge capacity of less than 5,000 gallons per day. [Site Certificate Condition 7.8]

23 V.C.2.3 During construction and operation of the facility, the certificate holder shall provide for on-
24 site security and shall establish good communications between on-site security personnel
25 and the Wasco County Sheriff's Office. During operation, the certificate holder shall ensure
26 that appropriate law enforcement agency personnel have an up-to-date list of the names and
27 telephone numbers of facility personnel available to respond on a 24-hour basis in case of an
28 emergency on the facility site. [Site Certificate Condition 8.1]

29 V.C.2.4 During construction, the certificate holder shall require that all on-site construction
30 contractors develop and implement a site health and safety plan that informs workers and
31 others on-site about first aid techniques and what to do in case of an emergency and that
32 includes important telephone numbers and the locations of on-site fire extinguishers and
33 nearby hospitals. The certificate holder shall ensure that construction contractors have
34 personnel on-site who are trained and equipped for tower rescue and who are first aid and
35 CPR certified. [Site Certificate Condition 8.2]

36 V.C.2.5 During operation, the certificate holder shall develop and implement a site health and safety
37 plan that informs employees and others on-site about first aid techniques and what to do in
38 case of an emergency and that includes important telephone numbers and the locations of
39 on-site fire extinguishers and nearby hospitals. The certificate holder shall ensure that
40 operations personnel are trained and equipped for tower rescue. The facility must maintain
41 training records and have a current copy of the site health and safety plan on-site and
42 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

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- 1 V.C.2.6 During construction and operation of the facility, the certificate holder shall develop and
2 implement fire safety plans in consultation with the Columbia Rural Fire District to
3 minimize the risk of fire and to respond appropriately to any fires that occur on the facility
4 site. In developing the fire safety plans, the certificate holder shall take into account the dry
5 nature of the region and shall address risks on a seasonal basis. The certificate holder shall
6 meet annually with local fire protection agency personnel to discuss emergency planning
7 and shall invite local fire protection agency personnel to observe any emergency drill or
8 tower rescue training conducted at the facility. [Site Certificate Condition 8.4]
- 9 V.C.2.7 Upon the beginning of operation of the facility, the certificate holder shall provide a site plan
10 to the Columbia Rural Fire District. The certificate holder shall indicate on the site plan the
11 identification number assigned to each turbine and the actual location of all facility
12 structures. The certificate holder shall provide an updated site plan if additional turbines or
13 other structures are later added to the facility. During operation, the certificate holder shall
14 ensure that appropriate fire protection agency personnel have an up-to-date list of the names
15 and telephone numbers of facility personnel available to respond on a 24-hour basis in case
16 of an emergency on the facility site. [Site Certificate Condition 8.5]
- 17 V.C.2.8 The certificate holder shall construct turbines and pad-mounted transformers on concrete
18 foundations and shall cover the ground within a 15-foot radius with non-flammable material.
19 The certificate holder shall maintain the non-flammable pad area covering during operation
20 of the facility. [Site Certificate Condition 8.6]
- 21 V.C.2.9 During construction and operation of the facility, the certificate holder shall ensure that the
22 O&M building and all service vehicles are equipped with shovels and portable fire
23 extinguishers of a 4A50BC or equivalent rating. [Site Certificate Condition 8.7]
- 24 V.C.2.10 During construction, the certificate holder shall ensure that construction vehicles and
25 equipment are operated on graveled areas to the extent possible and that open flames, such
26 as cutting torches, are kept away from dry grass areas. [Site Certificate Condition 8.8]
- 27 V.C.2.11 During operation, the certificate holder shall ensure that all on-site employees receive annual
28 fire prevention and response training by qualified instructors or members of the local fire
29 districts. The certificate holder shall ensure that all employees are instructed to keep vehicles
30 on roads and off dry grassland, except when off-road operation is required for emergency
31 purposes. [Site Certificate Condition 8.9]
- 32 V.C.2.12 Before beginning construction of any new State Highway approaches or utility crossings, the
33 certificate holder shall obtain all required permits from the Oregon Department of
34 Transportation (ODOT) subject to the applicable conditions required by OAR Chapter 734,
35 Divisions 51 and 55. The certificate holder shall submit the necessary application or
36 applications in a form satisfactory to ODOT and the Department for the location,
37 construction and maintenance of approaches to State Highway 197 for access to the site.
38 The certificate holder shall submit the necessary application or applications in a form
39 satisfactory to ODOT and the Department for the location, construction and maintenance of
40 collector cables or transmission lines crossing Highway 197. [Site Certificate Condition 5.9]
- 41 V.C.2.13 The certificate holder shall design and construct new access roads and private road
42 improvements to standards approved by the Wasco County Road Department. Where
43 modifications of County roads are necessary, the certificate holder shall construct the
44 modifications entirely within the County road rights-of-way and in conformance with
45 County road design standards subject to the approval of the Wasco County Road
46 Department. Where modifications of State roads or highways are necessary, the certificate
47 holder shall construct the modifications entirely within the public road rights-of-way and in

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- 1 conformance with ODOT standards subject to the approval of ODOT. [Site Certificate Condition
2 6.17]
- 3 V.C.2.14 The certificate holder shall cooperate with the Wasco County Public Works Department to
4 ensure that any unusual damage or wear to county roads that is caused by construction of the
5 facility is repaired by the certificate holder. Upon completion of construction, the certificate
6 holder shall restore public roads to pre-construction condition or better to the satisfaction of
7 the applicable county departments. [Site Certificate Condition 6.18]
- 8 V.C.2.15 During construction of the facility, the certificate holder shall implement measures to reduce
9 traffic impacts, including:
- 10 (a) Providing notice to adjacent landowners when heavy construction traffic is
11 anticipated.
- 12 (b) Providing appropriate traffic safety signage and warnings.
- 13 (c) Requiring flaggers to be at appropriate locations at appropriate times during
14 construction to direct traffic to reduce accident risks.
- 15 (d) Using traffic diversion equipment (such as advance signage and pilot cars) when slow
16 or oversize construction loads are anticipated.
- 17 (e) Maintaining at least one travel lane at all times to the extent reasonably possible so
18 that roads will not be closed to traffic because of construction vehicles.
- 19 (f) Encouraging carpooling for the construction workforce.
- 20 (g) Including traffic control procedures in contract specifications for construction of the
21 facility.
- 22 (h) Keeping Highway 197 free of gravel that tracks out onto the highway at facility access
23 points.
- 24 [Site Certificate Condition 6.19]
- 25 V.C.2.16 The certificate holder shall ensure that no equipment or machinery is parked or stored on
26 any County road whether inside or outside the site boundary. The certificate holder may
27 temporarily park equipment off the road but within County rights-of-way with the approval
28 of the County Roadmaster. [Site Certificate Condition 6.20]
29

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1
2 **V.D. WASTE MINIMIZATION [OAR 345-022-0120]**

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

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

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

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

15 * * *

16 **V.D.1 WASTE MINIMIZATION: FINDINGS OF FACT**

17 The applicant provided information about waste minimization in Exhibits G and V of the site
18 certificate application. Exhibit V includes the applicant's plans for solid waste and wastewater
19 management during construction and operation of the proposed facility. Exhibit G includes additional
20 information about management of potentially hazardous materials.

21 The accumulation, storage, disposal and transportation of waste generated by construction and
22 operation of the proposed facility are not likely to have an adverse impact on surrounding and adjacent
23 areas for the reasons discussed below. Most waste will be removed from the site and reused, recycled, or
24 disposed of at an appropriate facility. Water used on-site during construction for dust suppression and
25 road compaction is expected to evaporate or infiltrate into the ground. Wastewater produced during
26 operation will be discharged to an on-site septic system. Hazardous materials that could potentially be
27 used on the project site during construction or operation include lubricating oils, antifreeze, cleaners, and
28 pesticides.

29 **V.D.1.a. Solid Waste**

30 Solid waste generated during construction would consist primarily of concrete waste from
31 concrete turbine and transformer pads, transmission line support structures, O&M building and
32 the proposed substation; wood waste from the O&M building and wood forms used for concrete
33 pad construction; and scrap metal from construction of turbine towers, met towers and
34 transmission line support structures. Other solid waste generated during construction could
35 include erosion control materials (straw mulch, straw wattles and silt fencing) and packaging
36 materials for associated turbine parts and other electrical equipment.³⁸⁵ The applicant proposes to
37 minimize the generation of waste from construction through detailed estimating of materials
38 needs and through efficient construction practices.³⁸⁶

39 Solid waste generated during construction will go through the following procedures in order
40 to minimize waste: sorted and stored in dumpsters, transported to the regional landfill, and sorted
41 and recycled, as appropriate, by the regional landfill. All concrete waste will either be reused on-

³⁸⁵ Final ASC, Section V.2, p. 1

³⁸⁶ Final ASC, Section V.3, p. 2

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1 site as fill or transported to the regional landfill for disposal. Pursuant to OAR 340-093-0030,
2 such concrete waste is considered "clean fill" which does not require a permit from the DEQ for
3 on-site disposal. All packaging wastes will be sorted and recycled and transported to the regional
4 landfill. All non-recyclable materials will be collected in dumpsters and transported to the
5 regional landfill for disposal.³⁸⁷ The Council includes Condition V.D.2.1, which requires the
6 applicant to implement a solid waste management plan during construction.

7 Little solid waste would be generated from facility operations. Office waste, such as paper
8 and food packaging and scraps, would be generated at the O&M building. In addition, repair or
9 replacement of electrical or turbine equipment could generate incidental solid waste materials.
10 Waste from the O&M buildings and other solid waste generated on site would be collected and
11 recycled or transported to the regional landfill, as applicable.³⁸⁸ The Council includes Condition
12 V.D.2.2, which requires the applicant to implement a solid waste management plan during
13 operation.

14 **V.D.1.b. Wastewater**

15 During construction, water loss would occur primarily through evaporation from wetted road
16 surfaces and from drying concrete.³⁸⁹

17 Concrete delivery trucks would be rinsed at a local batch plant.³⁹⁰ During construction of the
18 facility, the certificate holder would be subject to the NPDES 1200-C permit and its associated
19 Erosion and Sediment Control Plan (ESCP). An ESCP describes best management practices for
20 erosion and sediment control, spill prevention and response procedures, regular maintenance for
21 vehicles and equipment, employee training on spill prevention and proper disposal procedures.

22 Portable toilets will be provided for onsite sewage handling during construction. The toilets
23 would be pumped and cleaned regularly by the construction contractor. No other sewage would
24 be generated during construction.³⁹¹ The Council includes Condition V.C.2.1, which would
25 require that a licensed contractor pump and clean portable toilets and dispose of the wastewater
26 off-site.

27 The applicant proposes to construct an on-site septic system to serve the sanitary uses at the
28 proposed O&M building during operation. The design capacity of the proposed new septic
29 system would be less than 5,000 gallons per day.³⁹² The Council includes Condition V.C.2.2,
30 which would require the certificate holder to discharge sanitary wastewater generated at the
31 O&M facilities to a licensed on-site septic system in compliance with State permit requirements.

32 No industrial wastewater would be generated during operation. If blade-washing becomes
33 necessary, the limited quantity of water used would evaporate or infiltrate into the ground near
34 the point of use (Condition VI.C.2.2). Water would not be discharged into wetlands, streams or
35 other waterways.

36 **V.D.1.c. Hazardous Materials**

³⁸⁷ Final ASC, Section V.3, p. 2

³⁸⁸ Final ASC, Section V.3, pp. 2-3

³⁸⁹ Final ASC, Section O.4, p. 1

³⁹⁰ Final ASC, Section V.2, p. 1

³⁹¹ Final ASC, Section V.2, p. 1

³⁹² Final ASC, Section V.2, p. 1

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1 Hazardous materials that might be used on-site during construction and operation include
2 lubricating oils, antifreeze, cleaners and pesticides.³⁹³ Each turbine will contain lubricating oil
3 and hydraulic oil; depending on the turbine type selected, the amount of oils in each turbine
4 ranges from 83.2 to 395 gallons. Turbines contain 7.5 to 9.25 gallons of ethylene glycol
5 (antifreeze), depending on the type of turbine selected for the facility.³⁹⁴

6 Hazardous materials will be stored indoors at the proposed O&M facility to prevent any
7 contamination from leaks or spills.³⁹⁵ All hazardous materials required for the construction and
8 operation of the facility will be used and stored per an internal hazardous materials program that
9 contains guidelines in accordance with US Environmental Protection Agency and Occupational
10 Safety and Health Administration regulations. In addition, the applicant states that all hazardous
11 materials stored and used on-site will be catalogued and materials safety data sheets for each
12 material will be filed and available to employees.

13 In addition, all employees are proposed to be trained and receive guidelines on the handling
14 of hazardous materials and how to properly store, transport, and dispose of hazardous materials.
15 In the event of a hazardous material spill, hazardous material containment and cleanup kits would
16 be available on site to minimize the impact resulting from a spill. These hazardous material
17 containment and cleanup kits would be maintained by the applicant or its designated contractor at
18 all times.³⁹⁶ The Council includes Condition IV.C.2.4, which addresses proper handling of
19 hazardous materials, and Condition IV.C.2.5, which addresses preparation for, and response to,
20 spills and accidental releases of hazardous materials.

21 **V.D.2 WASTE MINIMIZATION: SITE CERTIFICATE CONDITIONS**

22 Based on its review of the information in Exhibit G and V of the ASC, the foregoing findings and
23 other evidence in the record, and in accordance with ORS 469.501(4) and OAR 345-022-0110 (2), the
24 Council includes the following site certificate conditions to address the facility's potential impacts related
25 to the Waste Minimization Standard:

- 26 V.D.2.1 The certificate holder shall implement a waste management plan during construction that
27 includes but is not limited to the following measures:
- 28 (a) Recycling steel and other metal scrap.
 - 29 (b) Recycling wood waste.
 - 30 (c) Recycling packaging wastes such as paper and cardboard.
 - 31 (d) Collecting non-recyclable waste for transport to a local landfill by a licensed waste
32 hauler.
 - 33 (e) Segregating all hazardous wastes such as used oil, oily rags and oil-absorbent
34 materials, mercury-containing lights and lead-acid and nickel-cadmium batteries for
35 disposal by a licensed firm specializing in the proper recycling or disposal of
36 hazardous wastes.
 - 37 (f) Confining concrete delivery truck rinse-out to a designated wash-out area and
38 burying other concrete waste as part of backfilling.

39 [Site Certificate Condition 6.3]

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

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- 1 V.D.2.2 The certificate holder shall implement a waste management plan during operation that
2 includes but is not limited to the following measures:
3 (a) Training employees to minimize and recycle solid waste.
4 (b) Recycling paper products, metals, glass and plastics.
5 (c) Recycling used oil and hydraulic fluid.
6 (d) Collecting non-recyclable waste for transport to a local landfill by a licensed waste
7 hauler.
8 (e) Segregating all hazardous, non-recyclable wastes such as used oil, oily rags and oil-
9 absorbent materials, mercury-containing lights and lead-acid and nickel-cadmium
10 batteries for disposal by a licensed firm specializing in the proper recycling or
11 disposal of hazardous wastes.
12 [Site Certificate Condition 10.11]
13

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1 **VI. OTHER APPLICABLE REGULATORY REQUIREMENTS UNDER COUNCIL**
2 **JURISDICTION**

3 Under ORS 469.503(3) and under the Council's General Standard of Review (OAR 345-022-
4 0000), the Council must determine whether the proposed facility complies with "all other Oregon statutes
5 and administrative rules identified in the Project Order, as amended, as applicable to the issuance of a site
6 certificate for the proposed facility." This section addresses the applicable Oregon statutes and
7 administrative rules that are not otherwise addressed in Sections IV and V of this Order. They include the
8 noise control regulations of the Department of Environmental Quality (Section VI.A), the Department of
9 State Lands' regulations for removal or fill of material affecting waters of the state (Section VI.B), the
10 Water Resources Department's regulations for appropriating ground water (VI.C) and the Council's
11 statutory authority to consider protection of public health and safety (VI.D).

12 **VI.A. NOISE CONTROL REGULATIONS [OAR 340-035-0035]**

13 *(1) Standards and Regulations:*

14 * * *

15 *(b) New Noise Sources:*

16 * * *

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

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

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

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

30 *(I) The increase in ambient statistical noise levels is based on an assumed background*
31 *L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning*
32 *the wind energy facility may conduct measurements to determine the actual ambient L10 and L50*
33 *background level.*

34 *(II) The "actual ambient background level" is the measured noise level at the appropriate*
35 *measurement point as specified in subsection (3)(b) of this rule using generally accepted noise*
36 *engineering measurement practices. Background noise measurements shall be obtained at the*
37 *appropriate measurement point, synchronized with windspeed measurements of hub height*
38 *conditions at the nearest wind turbine location. "Actual ambient background level" does not*
39 *include noise generated or caused by the wind energy facility.*

40 *(III) The noise levels from a wind energy facility may increase the ambient statistical*
41 *noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if*
42 *the person who owns the noise sensitive property executes a legally effective easement or real*
43 *covenant that benefits the property on which the wind energy facility is located. The easement or*

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1 covenant must authorize the wind energy facility to increase the ambient statistical noise levels,
2 L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.

3 (IV) For purposes of determining whether a proposed wind energy facility would satisfy
4 the ambient noise standard where a landowner has not waived the standard, noise levels at the
5 appropriate measurement point are predicted assuming that all of the proposed wind facility's
6 turbines are operating between cut-in speed and the wind speed corresponding to the maximum
7 sound power level established by IEC 61400-11 (version 2002-12). These predictions must be
8 compared to the highest of either the assumed ambient noise level of 26 dBA or to the actual
9 ambient background L10 and L50 noise level, if measured. The facility complies with the noise
10 ambient background standard if this comparison shows that the increase in noise is not more
11 than 10 dBA over this entire range of wind speeds.

12 (V) For purposes of determining whether an operating wind energy facility complies with
13 the ambient noise standard where a landowner has not waived the standard, noise levels at the
14 appropriate measurement point are measured when the facility's nearest wind turbine is
15 operating over the entire range of wind speeds between cut-in speed and the windspeed
16 corresponding to the maximum sound power level and no turbine that could contribute to the
17 noise level is disabled. The facility complies with the noise ambient background standard if the
18 increase in noise over either the assumed ambient noise level of 26 dBA or to the actual ambient
19 background L10 and L50 noise level, if measured, is not more than 10 dBA over this entire range
20 of wind speeds.

21 (VI) For purposes of determining whether a proposed wind energy facility would satisfy
22 the Table 8 standards, noise levels at the appropriate measurement point are predicted by using
23 the turbine's maximum sound power level following procedures established by IEC 61400-11
24 (version 2002-12), and assuming that all of the proposed wind facility's turbines are operating at
25 the maximum sound power level.

26 (VII) For purposes of determining whether an operating wind energy facility satisfies the
27 Table 8 standards, noise generated by the energy facility is measured at the appropriate
28 measurement point when the facility's nearest wind turbine is operating at the windspeed
29 corresponding to the maximum sound power level and no turbine that could contribute to the
30 noise level is disabled.

31 * * *

32 **VIA.1 NOISE CONTROL REGULATIONS: FINDINGS OF FACT**

33 The applicant addressed compliance with the DEQ noise regulations in Exhibit X of the ASC.
34 The proposed facility will be a "new industrial or commercial noise source" under OAR 340-035-0035.³⁹⁷
35 The applicant has assumed that the proposed Summit Ridge site is a "previously unused" site.^{398,399}
36 Therefore, the noise generated by the proposed Summit Ridge facility must comply with OAR 340-035-
37 0035(1)(b)(B).

38 Under OAR 340-035-0035(1)(b)(B), the noise generated by a new wind energy facility located on
39 a previously unused site must comply with two tests: the "ambient degradation test" and the "maximum
40 allowable test." Facility-generated noise must not increase the ambient hourly L₁₀ or L₅₀ noise levels at
41 any noise sensitive receiver by more than 10 decibels (on the A-weighted scale) (dBA) when turbines are
42 operating "between cut-in speed and the wind speed corresponding to the maximum sound power

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

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1 level.⁴⁰⁰ This requirement is the “ambient degradation” test. To show that a proposed facility complies
2 with this test, the applicant may use an assumed ambient hourly L₅₀ noise level of 26 dBA; otherwise, the
3 applicant must measure the actual ambient hourly noise levels at the receiver in accordance with the
4 procedures specified in the regulation.

5 OAR 340-035-0035(1)(b)(B)(iii)(III) relieves the applicant from having to show compliance with
6 the ambient degradation test “if the person who owns the noise sensitive property executes a legally
7 effective easement or real covenant that benefits the property on which the wind energy facility is
8 located” (a “noise waiver”).

9 The potential “waiver” of the ambient degradation standard does not relieve the wind facility
10 operator from compliance with the second test imposed under OAR 340-035-0035(1)(b)(B). Facility-
11 generated noise must not exceed the noise limits specified in Table 8 of the regulation. This is known as
12 the “Table 8” or “maximum allowable” test. Table 8 of the regulation provides the following limits:

Statistical Noise Limits for Industrial and Commercial Noise Sources		
Statistical Descriptor	<u>Maximum Permissible Hourly Statistical Noise Levels (dBA)</u>	
	Daytime (7:00 AM - 10:00 PM)	Nighttime (10:00 PM - 7:00 AM)
L ₅₀	55	50
L ₁₀	60	55
L ₁	75	60

The hourly L₅₀, L₁₀ and L₁ noise levels are defined as the noise levels equaled or exceeded 50 percent, 10 percent and 1 percent of the hour, respectively.

13 Because the proposed energy facility is proposed to operate on a 24-hour basis, the noise
14 generated by the facility must not exceed the maximum allowable nighttime noise limits (10:00 PM to
15 7:00 AM). To comply with the “maximum allowable” test, the noise radiating from the proposed Summit
16 Ridge facility must not exceed an hourly L₅₀ noise level of 50 dBA at any noise sensitive receiver. For
17 the purpose of assessing whether the proposed wind facility would comply with this test, noise levels
18 must be predicted “assuming that all of the proposed wind facility’s turbines are operating at the
19 maximum sound power level.”

20 OAR 340-035-0035(5)(g) specifically exempts noise caused by construction activities.
21 Construction of the proposed Summit Ridge facility would produce localized, short duration noise levels
22 similar to those produced by any large construction project with heavy construction equipment. Much of

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.”

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1 the construction will be far from any noise sensitive receivers. Nevertheless, to mitigate noise impacts at
2 local residences, the Council includes Condition VI.A.2.1, which requires the certificate holder to confine
3 the noisiest construction activities to daylight hours and to establish a complaint response system to
4 address noise complaints during construction.

5 The applicant has elected to use the assumed ambient hourly L_{50} noise level of 26 dBA for the
6 background ambient noise level rather than to conduct noise measurements at the noise sensitive receivers
7 in the vicinity of the project. Accordingly, to show compliance with the ambient degradation test, the
8 noise generated by the operation of the proposed Summit Ridge wind turbines between cut-in wind speed
9 and maximum sound power level wind speed must not cause the hourly L_{50} noise level at any noise
10 sensitive receiver to exceed 36 dBA.

11 The applicant is proposing a wind energy facility that would contain between 66 and 87 wind
12 turbines. To represent the range of turbine types that may be used at the proposed facility, the applicant
13 provided total and octave band sound power level data for a 1.8 MW and a 2.3 MW turbine type.⁴⁰¹ The
14 applicant requests the design flexibility to locate the turbines anywhere within the proposed site
15 boundary, subject to the conditions of the site certificate. Because the final design configuration is not yet
16 known, the applicant's analysis of noise impacts is based on computer modeling of the preliminary
17 facility design.

18 The applicant submitted two turbine layouts under consideration within the site boundary; one
19 that included 66 2.3-MW turbines and one that included 87 1.8-MW turbines.⁴⁰² The applicant retained
20 acoustical consultant Mark Bastasch, P.E., of CH2M HILL, to calculate the sound pressure level expected
21 at each noise sensitive receiver within proximity of the site boundary. The Department consulted with
22 Kerrie G. Standlee, P.E., of Daly Standlee & Associates, Inc. to review and confirm Mr. Bastasch's
23 findings.

24 The applicant's noise analysis used the CADNA/A Version 3.72, 2009 program supplied by
25 Datakustik, GmbH of Munich, Germany to make the predictions of noise levels at noise sensitive
26 receivers. The program includes sound propagation factors adopted from ISO 9613 (ISO, 1993) and VDI
27 2714 (VDI, 1988) to account for distance attenuation, atmospheric attenuation, ground attenuation and
28 terrain attenuation. In predicting the maximum noise levels at the noise sensitive receivers, the analysis
29 included distance attenuation and atmospheric attenuation associated with conditions of 50 degrees
30 Fahrenheit (10 degrees Celsius) and 70 percent relative humidity. The analysis used ground attenuation
31 associated with the Simple Ground attenuation procedure included in ISO 9613-2 and considered by the
32 Department to be appropriate for wind turbine noise predictions. Barrier attenuation provided by the
33 topography at the site was included in the predictions where appropriate.

34 Octave band sound power level reference data supplied by the turbine manufacturers were used in
35 predicting the maximum noise levels at the noise sensitive receivers. The analysis increased the sound
36 power levels by 2 dB to account for the uncertainty associated with the data provided by the manufacturer
37 for the 1.8-MW turbines. The analysis used the stated "warranted" sound power level data supplied by
38 the manufacturer for the 2.3-MW turbines. For the noise analysis the applicant assumed that the 1.8-MW
39 turbines would have a maximum overall A-weighted sound power level output of 108.5 dBA and that the
40 2.3-MW turbines would have a maximum A-weighted sound power level output of 107 dBA.

41 In addition to calculating the noise generated by the wind turbines, the applicant calculated and
42 included the noise that would radiate to each receiver from the power transformers located at a single
43 proposed substation. The applicant used a maximum A-weighted sound power level of 106 dBA as the
44 total sound power level that could radiate from transformers located at the substation.

⁴⁰¹ 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.

⁴⁰² Final ASC, Figures X-1 and X-2

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1 The application includes a table showing the results of the noise analysis for the two proposed
2 turbine layouts.⁴⁰³ Table X-5 of Exhibit X shows predicted noise levels at 12 noise sensitive receivers
3 with both the proposed 1.8-MW turbine layout and the proposed 2.3-MW turbine layout. As a visual aid,
4 the applicant also provided figures that show the 36-dBA and 50-dBA noise contours around the proposed
5 wind energy facility.⁴⁰⁴

6 Based on the applicant's data, the maximum predicted noise levels generated by the Summit
7 Ridge facility are as shown in the table below. The data are presented in two columns, representing the
8 two turbine layouts that were analyzed. Data shown in **boldface** indicates an exceedance of the 36-dBA
9 ambient degradation limit. Receiver identification numbers match those shown on Figures X-1 and X-1
10 in Exhibit X of the application.
11

Predicted Noise Levels		
Receiver	2.3-MW Turbine Layout Predicted Maximum Hourly L₅₀ Noise Level (dBA)	1.8-MW Turbine Layout Predicted Maximum Hourly L₅₀ Noise Level (dBA)
R01	39	40
R02	43	43
R03	33	34
R04	49	49
R05	49	50
R06	44	45
R07	48	48
R08	47	47
R09	43	43
R10	47	47
R11	46	46
R12	44	44

12 For both proposed layouts, the predicted noise levels comply with the 50-dBA maximum
13 allowable test at all noise sensitive receivers. For the 2.3-MW turbine layout, the predicted noise levels at
14 11 of the 12 receivers exceed the 36-dBA ambient degradation limit; that is, operation of the facility could
15 increase the ambient statistical noise level by more than 10 dBA above the assumed background L₅₀
16 ambient noise level of 26 dBA. For the 1.8-MW turbine layout, the predicted noise levels at 11 of the 12
17 receivers also exceed the 36-dBA ambient degradation limit. The facility would not comply with the
18 ambient degradation test under either proposed layouts, unless the certificate holder obtained noise
19 easements from the owners of those properties where the predicted noise levels exceed the 36-dBA
20 ambient degradation limit.⁴⁰⁵ Otherwise, the certificate holder would have to change the layout or reduce

⁴⁰³ Final ASC, Table X-5

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).

⁴⁰⁵ The certificate holder would have the option to conduct measurements to determine the actual ambient L₁₀ and L₅₀ background noise levels rather than using an assumed background L₁₀ and L₅₀ 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 for that receiver.

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1 the number of turbines to bring the predicted noise levels down to levels that would not exceed the
2 ambient degradation limit.

3 To ensure that the final design of the facility demonstrates the ability to comply with the noise
4 control regulations, the Council includes Condition VI.A.2.2, which requires the certificate holder to
5 provide a revised noise analysis to the Department before beginning construction. The condition requires
6 the certificate holder to demonstrate to the satisfaction of the Department that the final design layout of
7 the facility using the selected turbine sizes would comply with the applicable noise control regulations. In
8 the event that the applicant is unable to demonstrate compliance with the ambient noise degradation limit,
9 the certificate holder is required to provide the Department evidence that the certificate holder has
10 obtained a noise waiver from each noise sensitive property.

11 Under Condition III.D.4 (discussed in Section III.D, General Conclusion and Findings Related to
12 the Facility), the certificate holder is required to operate the facility in accordance with all applicable state
13 laws and administrative rules, inclusive of the requirements of OAR 340-035-0035.⁴⁰⁶ Under OAR 340-
14 035-0035(4)(a), DEQ has authority to require the owner of an operating noise source to monitor and
15 record the statistical noise levels upon written notification. In the event of a complaint regarding noise
16 levels during operation of Summit Ridge, the Council has the authority to act in the place of DEQ to
17 enforce this provision to verify that the certificate holder is operating the facility in compliance with the
18 noise control regulations. However, the Council includes specific site certificate conditions to address
19 Noise Control Regulations, including Condition VI.A.2.3, requiring the certificate holder to maintain a
20 noise complaint response system and promptly notify the Department of any complaints, and Condition
21 VI.A.2.4, which expressly allows the Council to require the certificate holder to conduct noise monitoring
22 during operation of the facility to verify compliance with the noise regulations.

23 **VI.A.2 NOISE CONTROL REGULATIONS: SITE CERTIFICATE CONDITIONS**

24 Based on the review of the information provided in Exhibit X of the ASC and other evidence in the
25 record, and to ensure compliance with the requirements of OAR 340-035-0035, the Council includes the
26 following conditions in the site certificate:

27 VI.A.2.1 To reduce construction noise impacts at nearby residences, the certificate holder shall:

- 28 (a) Confine the noisiest operation of heavy construction equipment to the daylight hours.
- 29 (b) Require contractors to install and maintain exhaust mufflers on all combustion engine-
30 powered equipment; and
- 31 (c) Establish a complaint response system at the construction manager's office to address
32 noise complaints. Records of noise complaints during construction must be made
33 available to authorized representatives of the Department of Energy upon request.

34 [Site Certificate Condition 12.1]

35 VI.A.2.2 No more than 30 days prior to construction, the certificate holder shall provide to the
36 Department:

- 37 (a) Information that identifies the final design locations of all turbines to be built at the
38 facility;
- 39 (b) The maximum sound power level for the substation transformers and the maximum
40 sound power level and octave band data for the turbine type(s) selected for the facility
41 based on manufacturers' warranties or confirmed by other means acceptable to the
42 Department;
- 43 (c) The results of the noise analysis of the final facility design performed in a manner
44 consistent with the requirements of OAR 340-035-0035(1)(b)(B)(iii)(IV) and (VI). The

⁴⁰⁶ Condition III.D.4 is a mandatory condition that is required under OAR 345-027-0020(3).

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1 analysis must demonstrate to the satisfaction of the Department that the total noise
2 generated by the facility (including the noise from turbines and substation transformers)
3 will not exceed the maximum allowable noise level at any potentially-affected noise
4 receptor. The analysis must also demonstrate that the facility would meet the ambient
5 degradation test at the appropriate measurement point for potentially-affected noise
6 sensitive properties, or that the certificate holder has obtained the noise waiver described
7 in Condition VI.A.2.2(d) for each noise-sensitive property where the ambient
8 degradation standard cannot be met.

9 (d) For each noise-sensitive property where the certificate holder relies on a noise waiver to
10 demonstrate compliance in accordance with OAR 340-035-0035(1)(b)(B)(iii)(III), a
11 copy of the a legally effective easement or real covenant pursuant to which the owner of
12 the property authorizes the certificate holder's operation of the facility to increase
13 ambient statistical noise levels L₁₀ and L₅₀ by more than 10 dBA at the appropriate
14 measurement point. The legally-effective easement or real covenant must meet all of
15 the following criteria:

- 16 (a) Include a legal description of the burdened property (the noise sensitive
17 property);
18 (b) Be recorded in the real property records of the county;
19 (c) Expressly benefit the certificate holder;
20 (d) Expressly run with the land and bind all future owners, lessees or holders of any
21 interest in the burdened property; and
22 (e) Not be subject to revocation without the certificate holder's written approval.
23 [Site Certificate Condition 12.2]

24 VI.A.2.3 During operation, the certificate holder shall maintain a complaint response system to address
25 noise complaints. The certificate holder shall notify the Department within two working days
26 of receiving a complaint about noise from the facility. The notification should include, but is
27 not limited to, the date the complaint was received, the nature of the complaint, the
28 complainant's contact information, the location of the affected property, and any actions
29 taken, or planned to be taken, by the certificate holder to address the complaint.
30 [Site Certificate Condition 12.3]

31 VI.A.2.4 Upon written notification from the Department, the certificate holder will monitor and record
32 the actual statistical noise levels during operations to verify that the certificate holder is
33 operating the facility in compliance with the noise control regulations. The monitoring plan
34 must be reviewed and approved by the Department prior to implementation. The cost of such
35 monitoring, if required, will be borne by the certificate holder.
36 [Site Certificate Condition 12.4]

37 **VI.A.3 NOISE CONTROL REGULATIONS: CONCLUSIONS OF LAW**

38 Based on the foregoing findings and subject to compliance with the site certificate conditions,
39 the Council finds that the proposed facility complies with the Noise Control Regulations in
40 OAR 340-035-0035(1)(b)(B).
41

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1 **VL.B. REMOVAL-FILL LAW**

2 The Oregon Removal-Fill Law (ORS 196.795 through 196.990) and regulations (OAR 141-085-
3 0500 through 141-085-0785) adopted by DSL require a permit if 50 cubic yards or more of material is
4 removed, filled or altered within any “waters of the state” at the proposed site.⁴⁰⁷ The Council must
5 determine whether a permit is needed and should be issued. The U.S. Army Corps of Engineers
6 administers Section 404 of the Clean Water Act, which regulates the discharge of fill into waters of the
7 United States (including wetlands), and Section 10 of the Rivers and Harbors Appropriation Act of 1899,
8 which regulates placement of fill in navigable waters. Federal law may require a nationwide or individual
9 fill permit for the proposed facility if waters of the United States are affected. A single application form (a
10 Joint Permit Application Form) is used to apply for both the state and federal permits.

11 **VL.B.1 REMOVAL-FILL LAW: FINDINGS OF FACT**

12 **VL.B.1.a. Delineation of Waters of the State**

13 The applicant provided information about wetlands and other waters of the state in Exhibit J of
14 the application. The analysis area for Exhibit J is the area within the site boundary. The applicant’s
15 consultant, David Evans and Associates, Inc. (DEA) conducted field investigations to identify wetlands
16 and waters of the state within the analysis area using the Level 2 Routine Delineation Method described
17 in the US Army Corps of Engineers (USACE) *Wetlands Delineation Manual* (Environmental Laboratory
18 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West*
19 *Region* (USACE, Environmental Laboratory 2008).⁴⁰⁸ Before conducting the field investigation, DEA
20 reviewed available literature on the area, including U.S. Geological Survey topographic maps, National
21 Wetlands Inventory digital data (USFWS, 2008), and aerial photographs.⁴⁰⁹

22 The wetland and waters study areas included the 1,300 foot turbine micro-siting corridors,
23 transmission line corridors, and substation, laydown and O&M facility locations.⁴¹⁰ Field investigations
24 were conducted on June 2, July 29, July 30, August 7, and November 18, 2009.⁴¹¹ Field investigation
25 included all potential waters and wetlands identified in the literature review.

26 DEA delineated six wetlands within the study areas, two of which are isolated without connection
27 to jurisdictional water features. The remaining four identified wetlands are associated with the drainage
28 features of Dry Creek and Shotgun Hollow, which are tributaries to the Columbia River; these wetlands
29 are likely jurisdictional.⁴¹² All five wetlands were determined to be potentially jurisdictional under State
30 regulations.⁴¹³ DEA also identified 11 waterways; four of these were identified as likely state and
31 federally jurisdictional and one was identified as likely federally jurisdictional.⁴¹⁴ DSL concurred with
32 the wetland delineation study on April 5, 2010.⁴¹⁵

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)

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1 **VI.B.1.b. Removal/Fill Permit**

2 The applicant proposes to locate the components of the proposed Summit Ridge facility such that
3 there will be no impacts to identified wetlands or waterways. The applicant provided a series of maps
4 showing the locations of the identified wetlands and waterways with construction areas superimposed
5 (Figure J-2) which show no impacts to any of the identified wetland or waterways. The majority of the
6 wetlands and waterways lie along the proposed transmission line corridor; the transmission line towers
7 are proposed to be located roughly 800 to 1,000 feet apart, which will enable the applicant to avoid
8 wetland and waterways in tower placement. All new access roads are proposed to be constructed entirely
9 in upland areas to avoid impacts to wetland or waterways, and transmission conductor is proposed to be
10 installed using a helicopter, which will avoid ground impacts.⁴¹⁶

11 Because the applicant proposes to avoid all impacts to identified wetlands and waterways, there
12 will be no removal or fill requiring a Removal/Fill Permit. The Council finds that a Removal/Fill Permit
13 would not be needed for the proposed Summit Ridge facility.

14 **VI.B.2 REMOVAL-FILL LAW: SITE CERTIFICATE CONDITIONS**

15 Based on the review of the information provided in Exhibit J and other evidence in the record,
16 and to ensure compliance with the DSL Removal-Fill requirements, the Council includes the following
17 condition in the site certificate:

18 VI.B.2.1 To protect wetlands and waterways, the certificate holder shall construct the proposed facility
19 substantially as described in the this Order. Specifically, the certificate holder shall not remove
20 material from waters of the State or add new fill material to waters of the State such that the
21 total volume of removal and fill exceeds 50 cubic yards for the project as a whole. [Site Certificate
22 Condition 6.9]

23 **VI.B.3 REMOVAL-FILL LAW: CONCLUSIONS OF LAW**

24 Based on the foregoing findings, and subject to compliance with the site certificate condition, the
25 Council concludes that the proposed facility complies with the DSL removal-fill requirements, and does
26 not require a Removal-Fill Permit.
27

⁴¹⁶ Final ASC, Section J.3, pp. 2-3

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1 **VI.C. GROUND WATER ACT**

2 Through the provisions of the Ground Water Act of 1955, ORS 537.505 to 537.796, and OAR
3 Chapter 690, the Oregon Water Resources Commission administers the rights of appropriation and use of
4 the ground water resources of the state. Under OAR 345-022-0000(1), the Council must determine
5 whether the proposed Summit Ridge facility complies with these statutes and administrative rules.

6 **VI.C.1 GROUND WATER ACT: FINDINGS OF FACT**

7 The applicant provided information about anticipated water use for construction and operation of
8 the proposed facility in Exhibit O of the application. During construction, water would be obtained from
9 the City of The Dalles under an existing municipal water right.

10 Up to 15 million gallons would be needed for dust control, road and earthwork compaction and to
11 prepare concrete during the construction of the Summit Ridge Wind Farm.⁴¹⁷ In the application, the
12 applicant included a copy of a letter from the City of The Dalles indicating that the City could supply the
13 water needed during construction.⁴¹⁸ The (OWRD) concurred that proposed use of water from the City of
14 The Dalles "is allowed by a municipality and [OWRD] has no comment."⁴¹⁹

15 During construction, water would be trucked via tanker supplied to the applicant by the City of
16 The Dalles.⁴²⁰ Water to be used for dust control would be contained in tanker trucks with the appropriate
17 water-distribution attachments. When not in use, these trucks would be parked on-site (although not on
18 County roads, per Condition V.C.2.16) until needed. Water to be used for preparing concrete would be
19 stored in a 12,000 gallon storage tank that is a part of the proposed temporary self-contained portable
20 concrete batch plant.⁴²¹ At the completion of construction, the tanks would be removed from the site (see
21 Condition IV.C.2.6).

22 During operation, water would be used for domestic and incidental purposes at the O&M
23 building⁴²² and for equipment washdown.⁴²³ The applicant estimated that operational water use would be
24 less than 5,000 gallons per day.⁴²⁴ This water would come from a new on-site well (Condition VI.C.2.1).
25 ORS 537.545(1)(f) provides that a new water right is not required for industrial and commercial uses of
26 up to 5,000 gallons per day, although ORS 537.765 requires that a well log be submitted to the Water
27 Resources Commission within 30 days after completion of construction of a water well.⁴²⁵

28 The certificate holder may use water from the on-site well for washing facility equipment, such as
29 turbine rotors, but the total water use from the wells would not exceed 5,000 gallons per day.⁴²⁶

30 A DEQ WPCF 1700-B Wash Water Permit would not be needed for washing facility equipment,
31 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

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1 sewers or dry wells and provided that no acids, bases or metal brighteners would be used with the wash
2 water.⁴²⁷ DEQ recommends cleaning only with cold water. Biodegradable, phosphate-free cleaners are
3 allowed, but all chemicals, soaps or detergents should be used sparingly. The Council includes Condition
4 VI.C.2.2, which allows equipment washing, subject to the restrictions recommended by DEQ.

5 **VI.C.2 GROUND WATER ACT: SITE CERTIFICATE CONDITIONS**

6 Based on the review of the information provided in Exhibit O and other evidence in the record, and to
7 ensure compliance with the requirements of the Ground Water Act, the Council includes the following
8 condition in the site certificate:

9 VI.C.2.1 During facility operation, the certificate holder shall obtain water for on-site uses from an
10 on-site well located near the O&M building. The certificate holder shall construct the on-
11 site well subject to compliance with the provisions of ORS 537.765 relating to keeping a
12 well log. The certificate holder shall not use more than 5,000 gallons of water per day from
13 the on-site well. The certificate holder may use other sources of water for on-site uses
14 subject to prior approval by the Department. [Site Certificate Condition 10.9]

15 VI.C.2.2 During facility operation, if equipment washing becomes necessary, the certificate holder
16 shall ensure that there is no runoff of wash water from the site or discharges to surface
17 waters, storm sewers or dry wells. The certificate holder shall not use acids, bases or metal
18 brighteners with the wash water. The certificate holder may use biodegradable, phosphate-
19 free cleaners sparingly. [Site Certificate Condition 10.10]

20 **VI.C.3 GROUND WATER ACT: CONCLUSIONS OF LAW**

21 Based on the foregoing findings and subject to compliance with the site certificate conditions, the
22 Council finds that the proposed use of ground water for the construction and operation of the proposed
23 Summit Ridge Wind Farm complies with the Ground Water Act of 1955, ORS 537.505 to 537.796, and
24 applicable requirements of OAR Chapter 690.
25

⁴²⁷ Letter from DEQ to PPM Energy re: Blade Washing Requirements, December 13, 2006 (SRW-0142)
(Related to Leaning Juniper II Wind Power Facility, Application Supplement, Appendix A, Attachment 5)

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1 **VI.D. PUBLIC HEALTH AND SAFETY**

2 Under ORS 469.310 the Council is charged with ensuring that the “siting, construction and
3 operation of energy facilities shall be accomplished in a manner consistent with protection of the public
4 health and safety.” State law further provides that “the site certificate shall contain conditions for the
5 protection of the public health and safety.” ORS 469.401(2).

6 **VI.D.1 PUBLIC HEALTH AND SAFETY: FINDINGS OF FACT**

7 The Council’s Public Health and Safety Standards for Wind Energy Facilities (OAR 345-024-
8 0010) are discussed in Section IV.K of this document. Section V.C of this document addresses the
9 impacts of the proposed facility on the providers of public services to provide public services, including
10 fire and police protection. This section discusses issues of magnetic fields and coordination with the
11 Oregon Public Utility Commission (PUC).

12 **VI.D.1.a. Magnetic Fields**

13 The proposed Summit Ridge Wind Farm includes a 34.5 kV aboveground and underground
14 power collection system, as well as an aboveground 230 kV transmission line. A single-circuit
15 230 kV line would run from the substation to the interconnection with the BPA transmission
16 system. Most of the collector lines would be underground, but up to 10% of single-circuit
17 segments could be installed aboveground (Condition VI.D.2.1). There are no occupied structures,
18 or any structures meant for occupation, within 200 feet of the proposed 230 kV lines or the
19 proposed aboveground collector lines.⁴²⁸

20 Electric transmission lines create both electric and magnetic fields. The electric fields
21 associated with the proposed transmission lines are addressed above in Section IV.M, and for the
22 reasons discussed there, the proposed 34.5 kV and 230 kV transmission lines would not exceed
23 the Council’s electric field standard of 9-kV per meter at one meter above the ground surface in
24 areas accessible to the public.

25 The strength of a magnetic field is a function of the current (amperage) in the electric
26 transmission line: the higher the current, the greater the strength of the magnetic field. The
27 magnetic field strength decreases as the distance from the conductor increases. The strength of a
28 magnetic field fluctuates hourly and daily with changes in the amount of current in the
29 transmission line. Magnetic field strength is measured in units of milligauss (mG).⁴²⁹

30 The application includes data on estimated magnetic field strength surrounding different
31 transmission line configurations proposed for the Summit Ridge Wind Farm. The analysis
32 assumed that all aboveground 34.5 kV transmission lines would have a minimum clearance of 20
33 feet from the ground.⁴³⁰ The analysis assumed that the aboveground 230 kV transmission line
34 would have a minimum clearance of 25 feet from the ground.⁴³¹ For double-circuit runs, the
35 phasing of circuits can be arranged to reduce the magnetic field compared to a single-circuit run.
36 The magnetic field strength is at its maximum directly below the transmission line, at
37 approximately mid-span between pole structures, and field strength diminishes with distance from
38 the centerline.

39 Based on the analysis provided by the applicant, the predicted maximum magnetic field
40 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

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1 which is the edge of the right of way. For the aboveground 34.5 kV lines, the predicted
2 maximum magnetic field strength is 79 mG at the centerline and drops off rapidly to either side.
3 The magnetic field strength of the underground 34.5 kV lines, at 1 meter above ground level, is
4 estimated to be 23 mG for a single circuit and 20 mG for six parallel circuits.⁴³²

5 The Council has previously considered whether exposure to magnetic fields causes health
6 risks, and this issue has been the subject of considerable scientific research and discussion.⁴³³
7 The Council has not found sufficient information upon which to set health-based limits for
8 exposure to magnetic fields.⁴³⁴ Nevertheless, the Council has encouraged applicants to propose
9 and implement low-cost ways to reduce or manage public exposure to magnetic fields from
10 transmission lines under the Council's jurisdiction. The Council includes Condition VI.D.2.2,
11 which addresses reasonable steps to reduce or manage human exposure to electric and magnetic
12 fields.

13 ***VI.D.1.a.i. Coordination with the PUC and the Wasco Electric Cooperative***

14 The PUC Safety and Reliability Section has requested that the Council ensure that certificate
15 holders coordinate with PUC staff on the design and specifications of electrical transmission
16 lines. Under ORS 757.035, the PUC administers power line safety rules contained in OAR
17 Chapter 860, Division 24.⁴³⁵ The PUC has explained that others in the past have made
18 inadvertent, but costly, mistakes in the design and specifications of power lines and pipelines that
19 could have easily been corrected early if the developer had consulted with the PUC staff
20 responsible for the safety codes and standards.

21 Under the PUC rules, the certificate holder would be an "operator" of power lines and would
22 be subject to ongoing requirements for the operation, maintenance, emergency response and
23 alteration of the facility power lines.⁴³⁶ The certificate holder would be required to coordinate the
24 design of electric transmission lines with the PUC (Condition VI.D.2.3). Compliance with
25 ongoing requirements regarding power lines during facility operation would be required under
26 Conditions IV.M.1 and IV.M.2.

27 The proposed facility is located entirely within the service territory of the Wasco Electric
28 Cooperative (WEC).⁴³⁷ The WEC has expressed concern in its comments on the ASC that the
29 proposed facility will "cross over WEC high voltage overhead power lines and underground
30 power lines and low voltage overhead and underground power lines." WEC stated that it did not
31 oppose the project, but "demand[s] the reliability, integrity, and land rights of WEC are not
32 lowered by this large proposed project." The Council includes Condition VI.D.2.4, which
33 requires the applicant to consult closely with WEC to ensure the integrity and reliability of the
34 power grid in Wasco County.

35 **VI.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 Golder 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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1 Based on the review of the information provided in Exhibit AA and other evidence in the record, and
2 to ensure compliance with the Public Health and Safety requirements, the Council includes the following
3 conditions in the site certificate:

4 VI.D.2.1 The certificate holder shall install the 34.5 kV collector system underground to the extent
5 practical. The certificate holder shall install underground lines at a minimum depth of three
6 feet. Based on geotechnical conditions or other engineering considerations, the certificate
7 holder may install segments of the collector system aboveground, but the total length of
8 aboveground segments must not exceed five miles. [Site Certificate Condition 6.4]

9 VI.D.2.2 The certificate holder shall take reasonable steps to reduce or manage human exposure to
10 electromagnetic fields, including but not limited to:

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

13 (b) Constructing all aboveground 34.5 kV transmission lines with a minimum clearance of
14 20 feet from the ground.

15 (c) Constructing all aboveground 230 kV transmission lines with a minimum clearance of
16 25 feet from the ground

17 (d) Providing to landowners a map of underground and overhead transmission lines on their
18 property and advising landowners of possible health risks from electric and magnetic
19 fields.

20 (e) Designing and maintaining all transmission lines so that alternating current electric
21 fields do not exceed 9-kV per meter at one meter above the ground surface in areas
22 accessible to the public.

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

25 [Site Certificate Condition 7.9]

26 VI.D.2.3 In advance of, and during, preparation of detailed design drawings and specifications for the
27 230 kV and 34.5 kV transmission lines, the certificate holder shall consult with the Utility
28 Safety and Reliability Section of the Oregon Public Utility Commission to ensure that the
29 designs and specifications are consistent with applicable codes and standards. [Site Certificate
30 Condition 6.5]

31 VI.D.2.4 The certificate holder shall consult with the Wasco Electric Cooperative during the design,
32 construction, and operation of the Summit Ridge Wind Farm to ensure that the integrity and
33 reliability of the power grid in Wasco County is maintained. [Site Certificate Condition 6.7]

34 **VI.D.3 PUBLIC HEALTH AND SAFETY: CONCLUSIONS OF LAW**

35 Based on the foregoing findings and subject to compliance with the site certificate conditions, the
36 Council concludes that the siting, construction, and operation of the proposed Summit Ridge Wind Farm
37 are consistent with protection of public health and safety.
38

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1 **VII. CONDITIONS REQUIRED BY COUNCIL RULES**

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

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

10 The Council includes the site certificate conditions listed below that are required by Council rules, but
11 are not otherwise discussed or listed in this Order. Those conditions in the cited rule that do not apply to
12 the facility, such as conditions specific to a thermal power plant, are not included in this Order:

13 VII.1 The Council shall not change the conditions of the site certificate except as provided for
14 in OAR Chapter 345, Division 27.
15 [Site Certificate Condition 2.13] [Mandatory Condition OAR 345-027-0020(1)]

16 VII.2 The following general monitoring conditions apply:

- 17 (a) The certificate holder shall consult with affected state agencies, local governments
18 and tribes and shall develop specific monitoring programs for impacts to resources
19 protected by the standards of Divisions 22 and 24 of OAR Chapter 345 and
20 resources addressed by applicable statutes, administrative rules and local
21 ordinances. The certificate holder must submit the monitoring programs to the
22 Department of Energy and receive Department approval before beginning
23 construction or, as appropriate, operation of the facility.
- 24 (b) The certificate holder shall implement the approved monitoring programs described
25 in OAR 345-027-0028(1) and monitoring programs required by permitting agencies
26 and local governments.
- 27 (c) For each monitoring program described in OAR 345-027-0028(1) and (2), the
28 certificate holder shall have quality assurance measures approved by the Department
29 before beginning construction or, as appropriate, before beginning commercial
30 operation.
- 31 (d) If the certificate holder becomes aware of a significant environmental change or
32 impact attributable to the facility, the certificate holder shall, as soon as possible,
33 submit a written report to the Department describing the impact on the facility and
34 any affected site certificate conditions.
35 [Site Certificate Condition 13.3] [Mandatory Condition OAR 345-027-0028]

36 VII.3 Following receipt of the site certificate or an amended site certificate, the certificate
37 holder shall implement a plan that verifies compliance with all site certificate terms and
38 conditions and applicable statutes and rules. As a part of the compliance plan, to verify
39 compliance with the requirement to begin construction by the date specified in the site
40 certificate, the certificate holder shall report promptly to the Department of Energy when
41 construction begins. Construction is defined in OAR 345-001-0010. In reporting the
42 beginning of construction, the certificate holder shall describe all work on the site
43 performed before beginning construction, including work performed before the Council
44 issued the site certificate, and shall state the cost of that work. For the purpose of this
45 condition, "work on the site" means any work within a site or corridor, other than
46 surveying, exploration or other activities to define or characterize the site or corridor.

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1 The certificate holder shall document the compliance plan and maintain it for inspection
2 by the Department or the Council.

3 [Site Certificate Condition 14.7] [Mandatory Condition OAR 345-026-0048]

4 VII.4 The certificate holder shall report according to the following requirements:

5 a. General reporting obligation for energy facilities under construction or operating:

6 i. Within six months after beginning construction, and every six months
7 thereafter during construction of the energy facility and related or supporting
8 facilities, the certificate holder shall submit a semiannual construction
9 progress report to the Department of Energy. In each construction progress
10 report, the certificate holder shall describe any significant changes to major
11 milestones for construction. The certificate holder shall include such
12 information related to construction as specified in the site certificate. When
13 the reporting date coincides, the certificate holder may include the
14 construction progress report within the annual report described in OAR 345-
15 026-0080.

16 ii. By April 30 of each year after beginning construction, the certificate holder
17 shall submit an annual report to the Department addressing the subjects listed
18 in OAR 345-026-0080. The Council Secretary and the certificate holder may,
19 by mutual agreement, change the reporting date.

20 iii. To the extent that information required by OAR 345-026-0080 is contained in
21 reports the certificate holder submits to other state, federal or local agencies,
22 the certificate holder may submit excerpts from such other reports to satisfy
23 this rule. The Council reserves the right to request full copies of such
24 excerpted reports.

25 [Site Certificate Condition 13.1] [Mandatory Condition OAR 345-026-0080(1)]

26 b. In the annual report, the certificate holder shall include the following information
27 for the calendar year preceding the date of the report:

28 i. Facility Status: An overview of site conditions, the status of facilities under
29 construction, and a summary of the operating experience of facilities that are
30 in operation. In this section of the annual report, the certificate holder shall
31 describe any unusual events, such as earthquakes, extraordinary windstorms,
32 major accidents or the like that occurred during the year and that had a
33 significant adverse impact on the facility.

34 ii. Reliability and Efficiency of Power Production: For electric power plants, the
35 plant availability and capacity factors for the reporting year. The certificate
36 holder shall describe any equipment failures or plant breakdowns that had a
37 significant impact on those factors and shall describe any actions taken to
38 prevent the recurrence of such problems.

39 iii. Status of Surety Information: Documentation demonstrating that bonds or
40 letters of credit as described in the site certificate are in full force and effect
41 and will remain in full force and effect for the term of the next reporting
42 period.

43 iv. Monitoring Report: A list and description of all significant monitoring and
44 mitigation activities performed during the previous year in accordance with
45 site certificate terms and conditions, a summary of the results of those
46 activities and a discussion of any significant changes to any monitoring or
47 mitigation program, including the reason for any such changes.

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- 1 v. Compliance Report: A description of all instances of noncompliance with a
2 site certificate condition. For ease of review, the certificate holder shall, in
3 this section of the report, use numbered subparagraphs corresponding to the
4 applicable sections of the site certificate.
- 5 vi. Facility Modification Report: A summary of changes to the facility that the
6 certificate holder has determined do not require a site certificate amendment
7 in accordance with OAR 345-027-0050.

8 [Site Certificate Condition 13.1.b] [Mandatory Condition OAR 345-026-0080(2)]

9 VII.5 The certificate holder and the Department of Energy shall exchange copies of all
10 correspondence or summaries of correspondence related to compliance with statutes,
11 rules and local ordinances on which the Council determined compliance, except for
12 material withheld from public disclosure under state or federal law or under Council
13 rules. The certificate holder may submit abstracts of reports in place of full reports;
14 however, the certificate holder shall provide full copies of abstracted reports and any
15 summarized correspondence at the request of the Department.

16 [Site Certificate Condition 13.2] [Mandatory Condition OAR 345-026-0105]

17 **Summary of Required Monitoring Programs.** As required under Council rule OAR 345-027-0028,
18 the certificate holder is required to have specific monitoring programs for impacts to resources protected
19 by Council standards and to resources addressed by other applicable statutes, administrative rules and
20 local ordinances. The certificate holder's should have the following monitoring programs in place and
21 ensure that the monitoring programs include all information required to comply with site certificate
22 conditions:

- 23 • **Cultural resources:** The certificate holder must monitor construction activities to ensure that
24 construction personnel cease all ground-disturbing activities in the immediate area if any
25 archaeological or cultural resources are found.
- 26 • **Operational safety:** The certificate holder must have an operational safety monitoring
27 program, including inspection of turbine blades on a regular basis for signs of wear.
- 28 • **Fire control and prevention:** The certificate holder must have fire safety plans for
29 construction and operation of the facility, including monitoring the site to minimize the risk of
30 fire and to respond appropriately to any fires that occur on the site.
- 31 • **Hazardous materials:** The certificate holder must monitor the use of hazardous materials to
32 ensure protection of public health, safety and the environment.
- 33 • **Soil impacts:** The certificate holder must implement an Erosion and Sediment Control Plan
34 during construction to minimize adverse impacts to soils and must monitor the facility site
35 during operation to maintain or repair erosion control measures.
- 36 • **Post-construction revegetation:** The certificate holder must restore areas temporarily
37 disturbed during construction as described in the *Revegetation and Weed Control Plan*,
38 including monitoring of the revegetated areas to ensure that success criteria are met.
- 39 • **Weed control:** The certificate holder must monitor the facility site during construction and
40 operation to control the spread of noxious weeds.
- 41 • **Wildlife monitoring:** The certificate holder must monitor the facility site for impacts to
42 wildlife species in accordance with a Wildlife Monitoring and Mitigation Plan.
- 43 • **Habitat mitigation:** The certificate holder must monitor the habitat mitigation area to ensure
44 that success criteria are met and maintained for the life of the facility.

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1 **VIII. CONCLUSION AND ORDER OF THE COUNCIL**

2 The applicant has submitted an application to construct a wind energy facility consisting of up to
3 87 wind turbines having a combined peak electric generating capacity of not more than 200.1 megawatts.
4 The Council finds that a preponderance of evidence on the record supports the following conclusions:

- 5 1. The proposed Summit Ridge Wind Farm complies with the requirements of the Oregon
6 Energy Facility Siting statutes, ORS 469.300 to 469.520.
- 7 2. The proposed Summit Ridge Wind Farm complies with the standards adopted by the Council
8 pursuant to ORS 469.501.
- 9 3. The proposed Summit Ridge Wind Farm complies with the statewide planning goals adopted
10 by the Land Conservation and Development Commission.
- 11 4. The proposed Summit Ridge Wind Farm complies with all other Oregon statutes and
12 administrative rules identified in the Project Order as applicable to the issuance of a site
13 certificate for the proposed facility.

14 Based on the findings of fact, reasoning, conditions, and conclusions of law in this Final Order,
15 the Council concludes that the applicant has satisfied the requirements for issuance of a site certificate for
16 the proposed Summit Ridge Wind Farm, subject to the conditions stated in this Order.

17 The Council grants issuance of a site certificate, subject to the terms and conditions set forth
18 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

19 Exhibit 2: Wildlife Monitoring and Mitigation Plan

20 Exhibit 3: Habitat Mitigation Plan

21 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.

SUMMIT RIDGE WIND FARM
FINAL ORDER

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