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April 7, 2023

VIA ELECTRONIC FILING

Public Utility Commission of Oregon
Filing Center
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Re: Docket No. PCN 5 – In the Matter of Idaho Power Company's Petition for Certificate of Public Convenience and Necessity.

Attention Filing Center:

Attached for filing in the above-referenced docket is Idaho Power Company's Surrebuttal Testimony and Exhibits of Mitch Colburn (Idaho Power/1800-1805).

Please contact this office with any questions.

Thank you,

A handwritten signature in blue ink that reads 'Suzanne Prinsen'.

Suzanne Prinsen
Legal Assistant

Attachments

DOCKET PCN 5 - CERTIFICATE OF SERVICE

I hereby certify that on April 7, 2023 Idaho Power Company's Surrebuttal Testimony of Mitch Colburn was served by USPS First Class Mail and Copy Center to said person(s) at his or her last-known address(es) as indicated below:

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DATED: April 7, 2023

/s/ Suzanne Prinsen

Suzanne Prinsen
Legal Assistant

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

DOCKET PCN 5

In the Matter of)
IDAHO POWER COMPANY'S)
PETITION FOR A CERTIFICATE OF)
PUBLIC CONVENIENCE AND)
NECESSITY.)
_____)

**IDAHO POWER COMPANY
SURREBUTTAL TESTIMONY
OF
MITCH COLBURN**

APRIL 7, 2023

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- Idaho Power/1801 – *In re Application for a Site Certificate for the Wheatridge Wind Energy Facility*, Final Order (Apr. 2017)
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- Idaho Power/1803 – George Plaven, Green Energy Corridor, Eastern Oregonian News Article (May 18, 2017)
- Idaho Power/1804 – Letters of Support for West of Bombing Range Road Alternative
- Idaho Power/1805 – Letter from the Glass Hill Coalition (May 6, 2019)

1 **Q. Please state your name and your place of employment.**

2 A. My name is Mitch Colburn. I am the Vice President of Planning, Engineering, and
3 Construction at Idaho Power Company (“Idaho Power” or the “Company”).

4 **Q. Are you the same Mitch Colburn that previously filed Reply Testimony in this**
5 **matter?**¹

6 A. Yes.

7 **Q. What is the scope and purpose of your Surrebuttal Testimony?**

8 A. In my Reply Testimony, I summarized the siting history for the Boardman to Hemingway
9 Transmission Line Project (“B2H” or the “Project”) and addressed concerns stakeholders
10 had raised in their Opening Testimonies regarding Idaho Power’s corridor assessment
11 and route selection in Morrow, Union, and Malheur Counties. In this testimony, I will
12 respond to the testimony of Sam Myers—who continues to propose alternative route
13 segments in Morrow County—and Susan Geer and Michael McAllister—who take issue
14 with my description of the route selection process in Union County. No intervenor filed
15 rebuttal testimony relating to the siting process in Malheur County, so I will not discuss
16 that process further in this Surrebuttal Testimony.

17 **Q. Have you previously testified on the topic of Idaho Power’s corridor assessment**
18 **and route selection?**

19 A. Yes. I provided a detailed history of Idaho Power’s consideration of routing options for
20 B2H in my Reply Testimony.²

21 **Q. Please summarize your testimony.**

22 A. In my Reply Testimony, I provided a detailed summary of Idaho Power’s siting history for
23 the Project and responded to intervenors’ concerns challenging the Company’s routing

¹ Idaho Power/601-617 (Feb. 21, 2023).

² Idaho Power/600, Colburn/9-20.

1 decisions in Morrow, Union, and Malheur Counties.³ As I explained there, with the
2 understanding that it is impossible to build large infrastructure without impacting
3 something or someone, throughout Idaho Power's routing process, the Company has
4 worked with agencies and stakeholders to route the Project in a manner that minimizes
5 impacts and takes into consideration the various constraints located throughout the
6 proposed Project area and sought to balance the myriad interests in siting the Project.⁴

7 In their Rebuttal Testimonies, Mr. Myers, Ms. Geer, and Mr. McAllister reiterate
8 their concerns regarding Idaho Power's selected route through Morrow and Union
9 Counties. Mr. Myers continues to advocate for a route in Morrow County that sites the
10 Project south of Gleason Butte, and specifically proposes that Idaho Power utilize the
11 approved corridor for the intraconnection transmission lines supporting the Wheatridge
12 Wind Energy Facility ("Wheatridge"). As I explain below, contrary to Mr. Myers' assertions,
13 routing the Project using the Wheatridge corridor would be longer and costlier, would
14 impact more parcels of property and new landowners, would likely involve different
15 resource and permitting considerations, and would add significant delays.

16 In Union County, Ms. Geer and Mr. McAllister continue to challenge Idaho Power's
17 selection of the Morgan Lake Alternative. Ms. Geer and Mr. McAllister take issue with the
18 fact that Idaho Power has referred to two different routes as the "Glass Hill Route" and the
19 "Glass Hill Alternative" and described the Morgan Lake Alternative as a "variation" of one
20 of those routes. Ms. Geer and Mr. McAllister further challenge my description of the
21 comments received from local communities in La Grande, because they assert that the
22 local community would have supported the Glass Hill Alternative if the Company proposed
23 that route. Mr. McAllister also asserts that Idaho Power proposed the Mill Creek
24 Alternative only as a "bait and switch" to garner support for the Morgan Lake Alternative.

³ See *generally* Idaho Power/600, Colburn/9-73.

⁴ Idaho Power/600, Colburn/1-2, 6-9.

1 However, as I explained in my Reply Testimony, the Glass Hill Alternative was not
2 universally supported as Mr. McAllister suggests and instead it faced substantial backlash
3 from the affected landowners. Further, Idaho Power proposed the Mill Creek Alternative
4 in response to a specific request from Union County to consider a routing option
5 collocating the Project with an existing 230-kilovolt (“kV”) transmission line, and not as
6 some sort of “bait and switch.”

7 Finally, throughout these proceedings Ms. Geer has testified regarding Rice Glass
8 Hill’s designation as a State Natural Area. Idaho Power met with representatives from the
9 Oregon Parks and Recreation Department (“OPRD”) responsible for the State Natural
10 Areas Program, and they informed the Company that designation as a State Natural Area
11 does not place additional regulatory restrictions or limitations on development that would
12 affect construction of the Project.

13 **I. RESPONSE TO INTERVENORS’ TESTIMONY REGARDING PROJECT SITING**

14 **A. *Morrow County***

15 **Q. In your Reply Testimony, you responded to testimony from Sam Myers regarding**
16 **the Project route in Morrow County.⁵ Did Mr. Myers respond to your testimony in**
17 **his Rebuttal Testimony?**

18 **A.** Yes. In his Rebuttal Testimony, Mr. Myers continues to advocate for alternate routes in
19 Morrow County.⁶ Mr. Myers also filed letters from two other Morrow County landowners
20 raising their concerns about the Project.

21 **1. Mr. Myers’ Proposed Alternative Routes**

22 **Q. Does Mr. Myers propose alternative routes for the Project in his Rebuttal**
23 **Testimony?**

⁵ Idaho Power/600, Colburn/29-32.

⁶ Sam Myers' Amended Rebuttal Testimony and Exhibits at 2-8 of 12 (Mar. 20, 2023).

1 A. Consistent with his prior testimony, Mr. Myers continues to propose that Idaho Power
2 re-route the Project south of Gleason Butte.⁷ In his Rebuttal Testimony, Mr. Myers
3 provides a more specific proposal than he provided initially, and specifically proposes that
4 Idaho Power could site the Project within the right-of-way for the intraconnection
5 transmission lines supporting Wheatridge.⁸

6 **Q. What is Wheatridge?**

7 A. Wheatridge was initially proposed as a large wind energy facility located in Morrow and
8 Umatilla County that would consist of up to 292 turbines divided into two groups connected
9 by intraconnection transmission lines.⁹ The Energy Facility Siting Council ("EFSC")
10 initially approved a site certificate for Wheatridge in 2017, and a copy of EFSC's Final
11 Order is attached to my testimony as Exhibit 1801. My understanding is that Wheatridge
12 was subsequently divided up into four facilities (several of which also include solar and
13 battery storage elements), and EFSC has issued separate site certificates for each
14 facility.¹⁰

15 **Q. Mr. Myers identifies the Wheatridge corridor in response to a statement in your**
16 **Reply Testimony that "[t]here was no existing utility corridor that could be followed**
17 **for all or a majority of the Project" during the Company's corridor selection**
18 **process.¹¹ Had the right-of-way for the Wheatridge intraconnection transmission**
19 **lines already been approved when Idaho Power developed its route for the Project**
20 **in Morrow County?**

21 A. No. EFSC issued its Final Order for Wheatridge only approximately three months before

⁷ Sam Myers' Amended Rebuttal Testimony and Exhibits at 4 of 12.

⁸ Sam Myers' Amended Rebuttal Testimony and Exhibits at 2-5 of 12.

⁹ Idaho Power/1801, Colburn/13 (*In re Application for a Site Certificate for the Wheatridge Wind Energy Facility*, Final Order (Apr. 2017)).

¹⁰ See Idaho Power/1802, Colburn/1 (ODOE Diagram re Wheatridge Site Certificate History).

¹¹ Sam Myers' Amended Rebuttal Testimony and Exhibits at 3 of 12 (quoting Idaho Power/600, Colburn/9).

1 Idaho Power filed its amended preliminary Application for Site Certificate (“ASC”) for the
2 Project.

3 **Q. Would the right-of-way for the Wheatridge intraconnection transmission lines**
4 **provide a corridor “for all or a majority of the Project”?**

5 A. No. The right-of-way for the Wheatridge intraconnection lines is located only on a specific
6 site in Morrow and Umatilla County.¹²

7 **Q. Did Idaho Power consider collocating the Project with the Wheatridge**
8 **intraconnection transmission lines?**

9 A. No, Idaho Power did not consider this routing option because the Wheatridge right-of-way
10 did not exist when Idaho Power conducted its corridor assessment—both Wheatridge and
11 B2H proceeded through the EFSC site certificate process at roughly the same time.
12 Additionally, no commenters during the public comment processes for the Project
13 proposed routing the Project along the Wheatridge corridor.¹³

14 **Q. Mr. Myers also asserts that the Wheatridge corridor was identified as an approved**
15 **“Green Energy Corridor” in Morrow County.¹⁴ Are you familiar with the process for**
16 **the identification of Green Energy Corridors in Morrow County?**

17 A. Yes, to an extent. In 2015, then-Governor Kate Brown established an advisory committee
18 on Energy and Agriculture to consider Oregon’s energy needs, agricultural uses in the
19 Umatilla Basin (Morrow County and Umatilla County), and to consider opportunities to
20 reduce impacts to high-value agricultural land in that area. While I am not familiar with the
21 designation of the Wheatridge corridor referenced above as a Green Energy Corridor, I
22 was involved in the early phases of that process and am familiar with that process as it

¹² Idaho Power/1801, Colburn/13 (*In re Application for a Site Certificate for the Wheatridge Wind Energy Facility*, Final Order (Apr. 2017)).

¹³ See generally Idaho Power’s Supplement to Petition for CPCN, Attachment 1 (Final Order, Attachment 2, DPO Comment Index and DPO Comments) at 972-7353 of 10603 (Oct. 7, 2022).

¹⁴ Sam Myers’ Amended Rebuttal Testimony and Exhibits at 2-3 of 12.

1 related to the identification of a Green Energy Corridor for B2H.

2 **Q. What proposals were made specific to the siting of B2H?**

3 A. For B2H, my understanding is that there was concern from the community about the area
4 in the vicinity of the Boardman terminus, which ultimately resulted in the proposal that B2H
5 be sited on the west side of Bombing Range Road in Morrow County—which was
6 ultimately designated as a Green Energy Corridor.¹⁵ To achieve this result, Idaho Power
7 engaged in a considerable effort, working collaboratively with landowners, representatives
8 from local, state, and federal government, and with Bonneville Power Administration and
9 Umatilla Electric Cooperative to consolidate B2H and other needed transmission
10 infrastructure and to reduce impacts to agricultural lands in that area.¹⁶ Idaho Power
11 sought an easement from the United States Navy for the portions of B2H on the Naval
12 Weapons Systems Training Facility (also called the “Boardman Bombing Range”), which
13 was ultimately approved in 2019, and the easement was recorded in April 2020.

14 **Q. Did any of the participants in the Green Energy Corridor process propose that other**
15 **portions of B2H should be re-routed and consolidated with the proposed**
16 **Wheatridge corridor?**

17 A. No, my understanding is that no party made any such proposal, and instead the focus for
18 B2H was in the vicinity of the Boardman Bombing Range.

19 **Q. How does Mr. Myers propose that Idaho Power could use the Wheatridge**
20 **intraconnection corridors?**

21 A. Mr. Myers proposes two alternate routes following the Wheatridge corridor that, according
22 to Mr. Myers, would replace a 14-mile and a 16-mile segment of the Company’s proposed
23 route, respectively.¹⁷

¹⁵ See Idaho Power/1803 (George Plaven, Green Energy Corridor, Eastern Oregonian News Article (May 18, 2017)).

¹⁶ See Idaho Power/1804 (Letters of Support for West of Bombing Range Road Alternative).

¹⁷ Sam Myers' Amended Rebuttal Testimony and Exhibits at 4 of 12.

1 **Q. What are the benefits Mr. Myers claims would be achieved by using his proposed**
2 **alternative routes?**

3 A. Mr. Myers alleges that his proposed alternative routes avoid multiple stream crossings,
4 increase the mileage for which the Project is collocated with another transmission line,
5 avoid crossing approximately eight miles of Exclusive Farm Use land, avoid an area of
6 higher seismic risk, reduce scenic impacts to the Butter Creek Valley, and reduce costs.¹⁸

7 **Q. Has Idaho Power analyzed Mr. Myers' proposed alternative routes?**

8 A. As I discussed above, Idaho Power did not thoroughly analyze collocating the route with
9 the Wheatridge corridor because Wheatridge had not been approved. However, in
10 response to Mr. Myers' Rebuttal Testimony, Idaho Power's consultant, Tetra Tech,
11 conducted a desktop analysis comparing a potential route following the Wheatridge
12 intraconnection transmission lines to the Proposed Route.

13 **Q. How does a route collocated with the Wheatridge transmission lines compare to the**
14 **Proposed Route?**

15 A. A route following the Wheatridge corridor would be substantially longer than the Proposed
16 Route, replacing a 14-mile segment of the Proposed Route with an alternative that is
17 approximately 21 miles long. This Wheatridge route would impact 19 separate parcels,
18 compared to the 17 parcels crossed by the Proposed Route—and would involve new
19 landowners who have not yet been involved in the B2H EFSC proceeding.

20 **Q. Do you agree with Mr. Myers' assertion that his proposed alternative routes would**
21 **be cheaper to build?**

22 A. No, I do not. Mr. Myers asserts that collocating B2H with the Wheatridge transmission
23 lines would cost less to build because of the shared right-of-way and fewer "large valley"
24 crossings.¹⁹ However, as I stated immediately above, a route following the Wheatridge

¹⁸ Sam Myers' Amended Rebuttal Testimony and Exhibits at 5 of 12.

¹⁹ Sam Myers' Amended Rebuttal Testimony and Exhibits at 5 of 12.

1 corridor would be longer, which would likely increase costs. Additionally, the Wheatridge
2 corridor largely follows stream drainages with steeper terrain on either side of stream,
3 which could present engineering challenges. Finally, based on Tetra Tech's desktop
4 analysis, Mr. Myers' proposed alternative routes include more turns, which would require
5 the use of a greater number of stronger towers due to the increased strain conductors
6 place on their supports in areas where the transmission line turns. The increased use of
7 these towers would increase the construction cost.

8 **Q. Mr. Myers also testifies that the Public Utility Commission of Oregon**
9 **("Commission") should consider his proposed alternative routes because EFSC**
10 **"does not require a Wildfire risk assessment of the selected routes prior to**
11 **approving the certificate[.]"²⁰ Is Mr. Myers' description of the EFSC process**
12 **accurate?**

13 **A.** I am not an attorney, but Mr. Myers' discussion of the EFSC review process appears to
14 raise a legal issue. My understanding is that Idaho Power will address legal issues in its
15 post-hearing brief. That being said, from my review of the EFSC record, it is clear that
16 EFSC thoroughly considered fire risk from the Project before issuing a site certificate for
17 B2H.²¹

18 **Q. Relatedly, Mr. Myers asserts that your discussion of the South of Gleason Butte**
19 **Route in your Reply Testimony is irrelevant because you did not compare the South**
20 **of Gleason Butte Route to the Proposed Route, but instead to a separate route in**
21 **Morrow County for which Idaho Power does not seek a Certificate of Public**
22 **Convenience and Necessity ("CPCN").²² How do you respond?**

²⁰ Sam Myers' Amended Rebuttal Testimony and Exhibits at 6 of 12.

²¹ Idaho Power's Supplement to Petition for CPCN, Attachment 1 (Final Order, Attachment 6, Contested Case Order as Amended and Adopted by Council) at 8842-46 of 10603 (addressing Mr. Myers' contested case issue relating to wildfire risk during operation of the Project) [hereinafter, "Final Order, Attachment 6"].

²² Sam Myers' Amended Rebuttal Testimony and Exhibits at 6 of 12.

1 A. Mr. Myers is correct that the excerpt I quoted was from Idaho Power's initial siting study
2 and did not discuss Idaho Power's current Proposed Route. However, I provided that
3 analysis only to show that Idaho Power had considered a route South of Gleason Butte
4 earlier in the siting process and that route had not been carried forward. The fact that
5 Idaho Power subsequently revised its Proposed Route does not affect the analysis
6 explaining why Idaho Power viewed the South of Gleason Butte route as less preferable
7 than alternatives under consideration at that time.

8 **Q. What is your conclusion regarding the alternative routes proposed by Mr. Myers?**

9 A. Idaho Power disagrees with Mr. Myers' proposal to use the Wheatridge corridor, as it
10 would be longer and costlier, would impact more parcels of property and new landowners,
11 would likely involve different resource and permitting considerations, and would add
12 significant delays.

13 **2. Impacts to Aerial Applicators on Mr. Myers' Farm**

14 **Q. Mr. Myers also testifies that the Proposed Route will affect the use of aerial**
15 **applications on his farm.²³ How do you respond?**

16 A. My understanding is that Mr. Myers raised this issue at the EFSC proceedings and it was
17 fully litigated there.²⁴ The Hearing Officer concluded in the Contested Case Order—which
18 EFSC adopted—that:

19 In its Agricultural Lands Assessment, Idaho Power identified aerial
20 agricultural operations as one of the accepted farm practices on
21 surrounding farmlands that the project may impact. Idaho Power
22 acknowledged that the presence of transmission lines prevents
23 aerial access to crops directly beneath the lines, may potentially
24 decrease crop yields, and may indirectly impede aerial application
25 of chemicals to other portions of the field depending on orientation,
26 wind direction, and other factors. Idaho Power has committed to
27 minimize potential impacts to aerial spraying by siting the
28 transmission lines as much as possible along the edges of fields,
29 existing roadways, or natural boundaries, rather than through

²³ Sam Myers' Amended Rebuttal Testimony and Exhibits at 8 of 12.

²⁴ Final Order, Attachment 6 at 8842-46 of 10603.

existing fields, which will result in less risk to the applicator and more efficiency to the producer. Through these actions, Idaho Power will reduce the intensity and frequency of impacts to farmlands, consistent with ORS 215.275(5).

As to Mr. Myers' farmland in particular, Idaho Power acknowledged that the proposed transmission line may impact Mr. Myers' ability to use aerial applications. As discussed above, the Company will attempt to reduce potential impacts to active agricultural fields through micrositings facility components. Moreover, although such negotiations are outside the Council's site certificate approval process, the Company will work with the landowner(s) to negotiate an easement for the right-of-way, and will minimize impacts to the extent practicable.²⁵

Q. Does Idaho Power still plan to work with Mr. Myers to minimize impacts?

A. Yes—Idaho Power still plans to coordinate with Mr. Myers—and all other impacted landowners—to minimize impacts to the extent practicable.

3. Idaho Power's Alleged Offer to Brian Morter

Q. Did Mr. Myers file testimony from other witnesses?

A. Yes. Mr. Myers filed statements from other impacted landowners, Brian Morter and John Luciani.²⁶

Q. What concerns does Mr. Morter raise in his testimony?

A. Mr. Morter expresses opposition to the Project, and testifies that Idaho Power offered him very little compensation for the impacts to his farm.²⁷

Q. Is landowner compensation at issue in this CPCN proceeding?

A. I am not an attorney, but my understanding is that the Commission will not be determining individual landowner compensation in this proceeding. Rather, my understanding is that compensation will be determined through individual negotiations or through condemnation proceedings. That being said, Idaho Power witness Lindsay Barretto summarized Idaho

²⁵ Final Order, Attachment 6 at 8844 of 10603 (internal footnotes omitted).

²⁶ Sam Myers' Amended Rebuttal Testimony and Exhibits at 9-12 of 12.

²⁷ Sam Myers' Amended Rebuttal Testimony and Exhibits at 9-11 of 12.

1 Power's negotiation process and the use of appraisals to calculate property values in her
2 Reply Testimony.²⁸

3 **4. John Luciani Was Not Denied Participation in This Docket**

4 **Q. What assertions does Mr. Luciani raise in his testimony?**

5 A. Mr. Luciani expresses frustration with the energy facility siting process and testifies that
6 he was not allowed to participate in this process.²⁹

7 **Q. Was Mr. Luciani denied an opportunity to participate in this docket?**

8 A. No. To my knowledge, Mr. Luciani never petitioned to intervene in this docket. Rather
9 than being denied participation, Mr. Luciani never requested to intervene. It is my
10 understanding, however, that Mr. Luciani sought to participate in the EFSC contested
11 case, but was denied limited party status on the basis that he had failed to raise an issue
12 in his comments on the Draft Proposed Order related to a siting standard or applicable
13 statute with sufficient specificity to allow for a response.³⁰

14 **B. *Union County***

15 **Q. In your Reply Testimony, you responded to several intervenors' testimonies
16 regarding the Project route in Union County.³¹ Did any intervenors raise concerns
17 regarding siting in Union County in their Rebuttal Testimonies?**

18 A. Yes. Ms. Geer challenged several of the statements in my Reply Testimony, as did her
19 witness Mr. McAllister. Ms. Geer also filed a "sworn statement" from Irene Gilbert
20 attesting to her personal interactions with Brad Allen.

21 **Q. What issues do Ms. Geer and her witnesses raise in their testimonies?**

²⁸ Idaho Power/400, Barretto/29 (Feb. 21, 2023).

²⁹ Sam Myers' Amended Rebuttal Testimony and Exhibits at 11-12 of 12.

³⁰ Idaho Power's Supplement to Petition for CPCN, Attachment 1 (Final Order) at 17 of 10603 [hereinafter, "Final Order"].

³¹ Idaho Power/600, Colburn/44-54.

1 A. Ms. Geer and Mr. McAllister both raise concerns regarding Idaho Power's description of
2 the various route segments considered in Union County, the origins of the Morgan Lake
3 Alternative, the extent of landowner opportunities to express concerns regarding B2H
4 routes, and Idaho Power's consideration of alternatives.³²

5 **1. Idaho Power's Description of Routes**

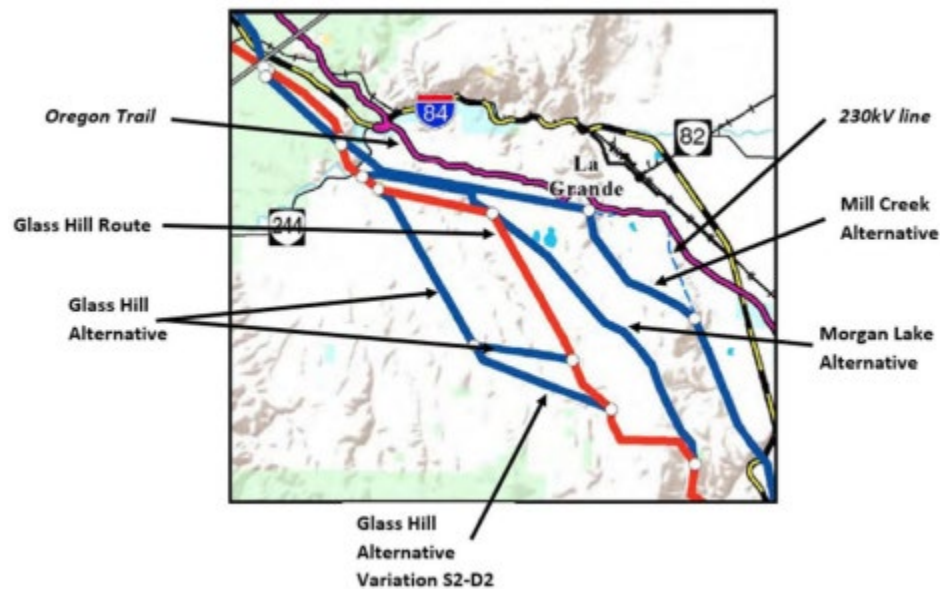
6 **Q. Ms. Geer and Mr. McAllister raise concerns regarding Idaho Power's consideration**
7 **of various route segments in Union County. Can you please summarize the various**
8 **routes considered in Union County?**

9 A. Yes. As I explained in my Reply Testimony, Idaho Power considered several routing
10 options in Union County and these options were all analyzed in various stages of the
11 National Environmental Policy Act ("NEPA") process.³³ In Union County, EFSC issued a
12 site certificate authorizing Idaho Power to construct the Project using either the Mill Creek
13 Alternative or the Morgan Lake Alternative. In this proceeding Idaho Power seeks a CPCN
14 for only the portions of the route that it intends to construct—which in Union County,
15 includes the Morgan Lake Alternative. The map of these potential routes was provided
16 with my Reply Testimony, and I am providing the map again below in Figure 1 for ease of
17 reference.

³² See *generally* Susan Geer's Rebuttal Testimony and Exhibits (Susan Geer/200-204) (Mar. 20, 2023).

³³ Idaho Power/600, Colburn/39.

Figure 1. Union County Routes



Q. Ms. Geer asserts that your Reply Testimony is “confusing” because you refer to a route previously referred to as the “Proposed Route” in the NEPA process as the “Glass Hill Route.”³⁴ Mr. McAllister similarly refers to the “transformation” from being labeled the Proposed Route to being referred to as the Glass Hill Route.³⁵ Why did Idaho Power refer to that route as the Glass Hill Route?

A. As I summarized in my Reply Testimony, the routing history in Union County is complex and involved several different routing options that, at various times, had been the Company’s “proposed” route. As shown in Figure 4 of my Reply Testimony, the Glass Hill Route was Idaho Power’s “proposed” route in 2014.³⁶

Q. Mr. McAllister challenges a statement in your Reply Testimony that “[i]n Union County, Idaho Power seeks a CPCN for the Proposed Route as modified by the Morgan Lake Alternative[.]”³⁷ Mr. McAllister describes this statement as a

³⁴ Susan Geer/200, Geer/3.

³⁵ Susan Geer/200, Geer/24-25.

³⁶ Idaho Power/600, Colburn/37.

³⁷ Susan Geer/200, Geer/20; see also Idaho Power/600, Colburn/40, 72 n. 93.

1 **“deception” that “the Morgan Lake Alternative as “merely a modification of Idaho**
2 **Power’s NEPA Proposed Route[.]”³⁸ How do you respond?**

3 A. As an initial matter, the statement in my Reply Testimony that Mr. McAllister challenges is
4 correct. That statement simply quotes Idaho Power’s Petition for a CPCN, where the
5 Company accurately stated that its “final route choice *among the alternatives approved by*
6 *EFSC . . .* include the proposed route as modified by the Morgan Lake Alternative[.]”³⁹

7 However, elsewhere in my Reply Testimony I describe the Morgan Lake
8 Alternative as a variation of the Glass Hill Route proposed in the NEPA process.⁴⁰ To the
9 extent that Mr. McAllister intended to challenge that statement, as shown in Figure 1, the
10 Morgan Lake Alternative follows a similar corridor as the Glass Hill Route for much of
11 Union County, and of the routes considered the Morgan Lake Alternative is the most
12 geographically similar to the Glass Hill Route. For these reasons, the Morgan Lake
13 Alternative is also accurately described as a variation of the Glass Hill Route.

14 **2. Coordination with Brad Allen**

15 **Q. Mr. McAllister testifies that only “one landowner” supported the Morgan Lake**
16 **Alternative.⁴¹ From Ms. Geer’s testimony, it appears that Mr. McAllister is referring**
17 **to Brad Allen.⁴² Did Idaho Power propose the Morgan Lake Alternative solely at the**
18 **request of a single landowner?**

19 A. No. As I explained in my Reply Testimony, Idaho Power worked primarily with Mr. Allen
20 to develop the Morgan Lake Alternative, but the Company did so in response to the
21 organized landowner opposition to the Glass Hill Alternative.⁴³

³⁸ Susan Geer/200, Geer/20.

³⁹ Idaho Power’s Petition for Certificate of Public Convenience and Necessity at 15 (Sept. 30, 2022) (emphasis added).

⁴⁰ Idaho Power/600, Colburn/48.

⁴¹ Susan Geer/200, Geer/20.

⁴² Susan Geer/200, Geer/10.

⁴³ Idaho Power/600, Colburn/51-52.

1 **Q. Why did Idaho Power work with Mr. Allen to develop the Morgan Lake Alternative?**

2 A. Mr. Allen's parcel in Union County was very large and an extensive segment of the Project
3 route was initially proposed on his parcel. Due to the potential impacts to Mr. Allen's
4 property, Idaho Power worked with Mr. Allen to identify another route that, while continuing
5 to impact his parcel, would avoid certain impacts that Mr. Allen had identified as
6 particularly important to him. As I explained in my Reply Testimony, the Morgan Lake
7 Alternative moved the Project route to another part of Mr. Allen's parcel, but did not move
8 the route off his land onto that of another individual.⁴⁴ Idaho Power has consistently
9 worked with impacted landowners to adjust the Project when feasible, as evidenced by
10 Idaho Power's Request for an Amendment to its Site Certificate modifying the Project
11 route in three distinct segments in response to landowner requests.⁴⁵

12 **Q. Ms. Gilbert states that she personally performed research work with Mr. Allen and**
13 **that he changed his support for the Morgan Lake Alternative "after securing a**
14 **'Gentleman's Agreement' to keep the Project off Cowboy Ridge[.]'"⁴⁶ How do you**
15 **respond?**

16 A. I cannot speak to any statement that Mr. Allen may or may not have made to Ms. Gilbert.
17 However, as I discussed above, Idaho Power worked with Mr. Allen to identify a route on
18 his property that would reduce the impacts he sought to avoid. Idaho Power similarly
19 worked with other landowners to avoid such impacts when feasible, and continues to do
20 so as the Company negotiates easements with impacted landowners.

⁴⁴ Idaho Power/600, Colburn/51-52.

⁴⁵ The STOP B2H Coalition's Amended Opening Testimony and Exhibits of Jim Kreider (STOP B2H/102, Kreider/12-13) (Feb. 1, 2023) ("IPC is requesting that the Proposed Site Boundary Additions be represented as alternative routes, allowing IPC the option to develop either the alternatives or the original routes, depending on the outcome of further discussions between IPC and the landowners.").

⁴⁶ Susan Geer/203, A Sworn Statement from Irene Gilbert at 2 of 2.

1 **3. Public Comment Process in Union County**

2 **Q. Mr. McAllister takes issue with your description of the siting history in Union**
3 **County because he argues that the Morgan Lake Alternative was not developed**
4 **through either the Community Advisory Process (“CAP”) or the Bureau of Land**
5 **Management’s (“BLM”) NEPA analysis.⁴⁷ How do you respond?**

6 **A. Mr. McAllister is correct that the Morgan Lake Alternative was not developed in the CAP.**
7 As I explained in my Reply Testimony, Idaho Power continued to engage with
8 stakeholders following the CAP, and the feedback the Company received strongly
9 opposed the Glass Hill Route and the Glass Hill Alternative.⁴⁸ Many stakeholders,
10 including Mr. McAllister and the Union County Commissioners, asked Idaho Power to
11 collocate the Project along the existing 230-kV transmission line.⁴⁹ The routes developed
12 in the CAP also faced substantial backlash from impacted landowners and from the
13 Confederated Tribes of the Umatilla Indian Reservation (“CTUIR”).⁵⁰ Taking this feedback
14 into account, additional routes were developed and analyzed in later stages of the NEPA
15 process and in the EFSC site certificate process.⁵¹

16 **Q. Ms. Geer suggests that you exaggerated the role of the Glass Hill Coalition in your**
17 **Reply Testimony,⁵² apparently relying on Mr. McAllister’s assertion that the Glass**
18 **Hill Coalition’s “single act” was to file a petition in 2015 requesting that Idaho Power**
19 **site the Project along the existing 230-kV transmission line.⁵³ How do you respond?**

⁴⁷ Susan Geer/200, Geer/24.

⁴⁸ Idaho Power/600, Colburn/36-38.

⁴⁹ Idaho Power/600, Colburn/37-38.

⁵⁰ Idaho Power/600, Colburn/37-40.

⁵¹ Idaho Power/600, Colburn/39-41.

⁵² Susan Geer/200, Geer/11-12.

⁵³ Susan Geer/200, Geer/19.

1 A. Mr. McAllister inaccurately describes the Glass Hill Coalition's actions. In addition to the
2 2015 petition, the Glass Hill Coalition continued filing comments on the Final
3 Environmental Impact Statement ("EIS") in December 2016.⁵⁴

4 **Q. Did the Glass Hill Coalition continue to oppose the Glass Hill Route and the Glass**
5 **Hill Alternative?**

6 A. Yes. Contrary to Mr. McAllister's assertion, the Glass Hill Coalition continued advocating
7 for a route following the existing 230-kV transmission line.⁵⁵ In a 2016 letter to
8 Congressman Greg Walden, Senators Ron Wyden and Jeff Merkley, and Director Neil
9 Kornze of the BLM, the Glass Hill Coalition went so far as to say that it was "astounded"
10 that the BLM selected the Glass Hill Alternative as its Agency Preferred Alternative.⁵⁶
11 Additionally, as recently as 2019, the Glass Hill Coalition provided comments supportive
12 of the Mill Creek Alternative and expressing concern about siting the line on the
13 undeveloped areas of Glass Hill.⁵⁷

14 **Q. Similarly, Ms. Geer states that she was not part of the Glass Hill Coalition, and "it**
15 **was always a big mystery who was" part of the Glass Hill Coalition.⁵⁸ Are you aware**
16 **of any documents that have been provided in this proceeding detailing the**
17 **supporters of the Glass Hill Coalition?**

18 A. Yes. The Glass Hill Coalition attached a list of its supporters to its March 2015 Draft EIS
19 comments—which is included as part of my Reply Testimony, Exhibit 609, Colburn/50-56.
20 The list included 107 supporters in total, including Michael McAllister and Joel Rice.⁵⁹

⁵⁴ Idaho Power/609, Colburn/17-18.

⁵⁵ Idaho Power/609, Colburn/17.

⁵⁶ Idaho Power/609, Colburn/17.

⁵⁷ See Idaho Power/1805 (Letter from the Glass Hill Coalition (May 6, 2019)).

⁵⁸ Susan Geer/200, Geer/9-10.

⁵⁹ Idaho Power/609, Colburn/52.

1 **Q. Mr. McAllister further describes your Reply Testimony as relying on the Glass Hill**
2 **Coalition as “justification” for the Morgan Lake Alternative.⁶⁰ Is this an accurate**
3 **description?**

4 A. No. As I explained in my Reply Testimony, the Glass Hill Coalition opposed the Glass Hill
5 Alternative, and landowner opposition was part of the reason that Idaho Power considered
6 additional alternative routes.⁶¹ I never indicated that the Glass Hill Coalition expressly
7 supported the Morgan Lake Alternative.

8 **Q. Ms. Geer similarly takes issue with your description of the comments from the**
9 **CTUIR, testifying “[w]hile the CTUIR preferred the Proposed route to the Glass Hill**
10 **Alternative, they never got a chance to weigh in on the Mill Creek or Morgan Lake**
11 **Alternatives. Odds are they would prefer the original Proposed route to Morgan**
12 **Lake Alternative, due to natural resources.”⁶² Is Ms. Geer correct that the CTUIR**
13 **“never got a chance” to comment on the Mill Creek or Morgan Lake Alternatives?**

14 A. No, Ms. Geer is incorrect. As I mentioned above, Idaho Power proposed both the Mill
15 Creek Alternative and the Morgan Lake Alternative in the Company’s ASC.⁶³ The
16 Company’s ASC was distributed to all “reviewing agencies” for review, which included the
17 CTUIR.⁶⁴ The CTUIR also had opportunity to comment on ODOE’s Draft Proposed Order
18 and Proposed Order, both of which recommended approval of the Mill Creek Alternative
19 and the Morgan Lake Alternative.⁶⁵

20 **Q. Did the CTUIR comment on the Draft Proposed Order?**

21 A. Yes, the CTUIR was heavily involved in review of Idaho Power’s ASC, including the
22 proposed route alternatives in Union County. Idaho Power worked with the CTUIR

⁶⁰ Susan Geer/200, Geer/27.

⁶¹ Idaho Power/600, Colburn/54.

⁶² Susan Geer/200, Geer/13.

⁶³ Final Order at 54 n.34 of 10603.

⁶⁴ Final Order at 13 of 10603.

⁶⁵ Final Order at 15 of 10603.

1 extensively to address their concerns.⁶⁶ Following that process, the CTUIR submitted a
2 letter stating:

3 The CTUIR is pleased to inform the ODOE and the federal agencies
4 that the CTUIR's concerns have been addressed and will be
5 mitigated by Idaho Power pursuant to a confidential mitigation
6 agreement between the CTUIR and Idaho Power.⁶⁷
7 Based on this extensive coordination and the CTUIR's conclusion that Idaho Power had
8 addressed all their concerns, Ms. Geer's statement that the CTUIR was denied an
9 opportunity to comment and her unsupported assertion that the CTUIR would agree with
10 her position regarding the Glass Hill Alternative are both incorrect.

11 **4. The Mill Creek Alternative**

12 **Q. Mr. McAllister continues to assert that Idaho Power proposed the Mill Creek**
13 **Alternative in its ASC solely as a "bait and switch" intended to ensure approval of**
14 **the Morgan Lake Alternative.⁶⁸ Ms. Geer similarly comments that because they**
15 **faced "only two choices, [local governments] had to say Morgan Lake**
16 **Alternative."⁶⁹ How do you respond?**

17 **A.** Mr. McAllister's and Ms. Geer's assertions are false. As I explained in my Reply
18 Testimony, the Mill Creek Alternative was developed to locate the Project closer to the
19 existing 230-kV transmission line.⁷⁰ The Mill Creek Alternative was then approved in
20 EFSC's Final Order based on a determination that that route complied with all applicable
21 standards.⁷¹

22 **Q. Had commenters requested that the Project be routed near the 230-kV transmission**
23 **line?**

⁶⁶ See Final Order at 508-513 of 10603 (summarizing Idaho Power's cooperation with the CTUIR regarding cultural resources).

⁶⁷ Final Order at 511 of 10603.

⁶⁸ Susan Geer/200, Geer/20.

⁶⁹ Susan Geer/200, Geer/12.

⁷⁰ Idaho Power/600, Colburn/38.

⁷¹ Final Order at 736 of 10603.

1 A. Yes. Dozens of interested individuals, including Mr. McAllister,⁷² advocated for a route
2 following the existing 230-kV transmission line. As Mr. McAllister acknowledges, the
3 Glass Hill Coalition specifically advocated for this route.⁷³ Idaho Power did not develop
4 the Mill Creek Alternative as a “bait and switch,” but rather developed it specifically to
5 respond to input from elected officials and landowners in Union County.

6 **Q. Mr. McAllister describes his change in opinion by stating, “[o]nce [a route following**
7 **the 230-kV transmission line] was mapped, it became obvious it was too close to**
8 **town and would impact too many residences and the view-shed in town.”⁷⁴ Did**
9 **other landowners continue to advocate for such a route after that point?**

10 A. Yes, as I discussed above, in 2016 the Glass Hill Coalition continued to support a route
11 that followed the existing 230-kV transmission line—and to oppose the Glass Hill
12 Alternative.⁷⁵

13 **Q. Has Mr. McAllister provided any explanation for his disagreement with the Glass**
14 **Hill Coalition?**

15 A. No, he has not. And apparently his position surprised that group as well. In their 2016
16 letter, the Glass Hill Coalition appeared to be confused by Mr. McAllister’s changed
17 position. The Coalition stated:

18 Please note the Glass Hill Coalition Supporters List, attached to our
19 input to the Draft EIS dated March 16, 2015 and attached to this
20 letter. This list is signed by the majority of landowners impacted by
21 the route across Glass Hill, including Mike McAllister (3rd sheet, line
22 15) who changed his mind for some reason and who’s proposed
23 route was the route ultimately selected and was also a route that
24 was not studied in any detail. The Coalition members will be waiting
25 anxiously to learn more about the Washington, DC interaction and
26 whether you are able to uncover who interjected themselves into
27 the process and why they were allowed to circumvent the
28 congressionally established EIS/HIS [sic] process.⁷⁶

⁷² Susan Geer/200, Geer/25.

⁷³ Susan Geer/200, Geer/25.

⁷⁴ Susan Geer/200, Geer/26.

⁷⁵ Idaho Power/609, Colburn/17-18.

⁷⁶ Idaho Power/609, Colburn/18.

1 **Q. Mr. McAllister testifies that the BLM “performed a comparison of only” the Glass**
2 **Hill Route and the Glass Hill Alternative in the NEPA process.⁷⁷ How do you**
3 **respond?**

4 A. To the extent Mr. McAllister suggests that BLM did not analyze the Morgan Lake
5 Alternative and the Mill Creek Alternative, Mr. McAllister is incorrect. As I explained in my
6 Reply Testimony, the BLM analyzed both the Morgan Lake Alternative and the Mill Creek
7 Alternative in the Final EIS.⁷⁸

8 **5. Required Alternatives Analysis**

9 **Q. Mr. McAllister also testifies that Idaho Power violated ORS 469.370(13) by not**
10 **including the Glass Hill Alternative in its ASC.⁷⁹ Is this true?**

11 A. I am not an attorney, but Mr. McAllister appears to be raising a legal issue, and my
12 understanding is that Idaho Power will address legal issues in its post-hearing brief. That
13 being said, my understanding is that Mr. McAllister raised this same issue in his appeal to
14 the Oregon Supreme Court, and the court rejected his argument when it affirmed EFSC’s
15 Final Order.⁸⁰

16 **6. Conclusion Regarding Union County Routing**

17 **Q. Please summarize for the Commission how the Company balanced competing**
18 **routing considerations in Union County.**

19 A. As I explained in my Reply Testimony, Idaho Power considered several potential routes
20 through Union County and, although each of the routes would result in impacts to some
21 resources, all routes would have been permissible so long as Idaho Power could mitigate

⁷⁷ Susan Geer/200, Geer/20-21.

⁷⁸ Idaho Power/600, Colburn/38, 48.

⁷⁹ Susan Geer/200, Geer/22.

⁸⁰ *STOP B2H Coalition v. Or. Dep’t of Energy (In re Site Certificate)*, 370 Or 792 at 811-15, 2023 Ore. LEXIS 133 at *27-33 (Mar. 9, 2023) (“It follows that Idaho Power was not required to include the environmentally preferable alternative in its application, and ORS 469.370(13) did not require EFSC to order Idaho Power to amend its application to include that alternative.”).

1 those impacts.⁸¹ Because any of the three routes the Company analyzed would be
2 permittable, Idaho Power selected a route based primarily on feedback from stakeholders
3 in the area, including opposition from the Glass Hill Coalition and the CTUIR, in addition
4 to comments from the City of La Grande supporting a route located outside the viewshed
5 of the city.⁸² For these reasons, Idaho Power's consideration of alternatives reasonably
6 concluded that the Morgan Lake Alternative was the best route to select in Union County.

7 **Q. In your view, was there a "consensus" route in Union County?**

8 A. No, despite Idaho Power's efforts to obtain consensus, I do not believe there was a route
9 in Union County that all stakeholders agreed upon. Idaho Power has worked hard to
10 obtain consensus or majority landowner support for the Project where possible, but
11 unfortunately due to the various stakeholders in Union County with conflicting (and at
12 times shifting) preferences, Idaho Power could not identify a consensus route through
13 Union County.

14 **II. THE RICE GLASS HILL NATURAL AREA**

15 **Q. Ms. Geer discusses the Rice Glass Hill Natural Area in her Rebuttal Testimony.⁸³**
16 **Has Idaho Power analyzed the potential impacts to that natural area?**

17 A. Yes. As I explained in my Reply Testimony, Idaho Power was not required to analyze
18 Rice Glass Hill as a Natural Area under EFSC's Protected Areas Standard because of the
19 late date at which the property was registered as a State Natural Area.⁸⁴ However, the
20 Company analyzed the property under other EFSC standards, including the Fish and
21 Wildlife Habitat Standard.⁸⁵

⁸¹ Idaho Power/600, Colburn/54.

⁸² Idaho Power/600, Colburn/54.

⁸³ Susan Geer/200, Geer/14-15.

⁸⁴ Idaho Power/600, Colburn/73-78.

⁸⁵ Idaho Power/600, Colburn/76-77.

1 **Q. Ms. Geer also expresses concern about the potential visual impacts to the Rice**
2 **Glass Hill Natural Area associated with clearing vegetation for the right-of-way.⁸⁶**

3 **Did Idaho Power analyze visual impacts to the Rice Glass Hill Natural?**

4 A. No. It is my understanding that no applicable EFSC standard required an analysis of
5 visual impacts to this parcel.

6 **Q. Are there any additional restrictions governing siting the Project within the Rice**
7 **Glass Hill Natural Area?**

8 A. No. On March 2, 2023, Idaho Power met with representatives from the OPRD concerning
9 the fact that the Project would cross the Rice Glass Hill Natural Area.⁸⁷ OPRD Staff
10 explained that the Natural Areas Program is entirely voluntary and “[t]here are no
11 regulatory requirements or limitations imposed on the use of the property by this program’s
12 rules as a result of the designation.”⁸⁸

13 **III. CONCLUSION**

14 **Q. Please provide a summary of your Surrebuttal Testimony.**

15 A. Idaho Power has worked to develop B2H for over a decade. The Company first sought
16 input from myriad interested stakeholders to identify potential routes for the Project that
17 would be permittable. The resulting Project route has been subject to review by both state
18 and federal agencies and determined to be consistent with applicable laws and
19 regulations. In this docket, intervenors have raised their concerns regarding specific route
20 segments, but the impacts of these segments have been thoroughly analyzed.
21 Understanding that a project of this magnitude will necessarily result in impacts to some
22 interests, Idaho Power has demonstrated throughout the federal and state review

⁸⁶ Susan Geer/200, Geer/15.

⁸⁷ Staff’s Rebuttal Testimony and Exhibits of Sudeshna Pal (Staff/401, Pal/20) (Mar. 20, 2023) (Idaho Power Company’s Supplemental Response to Staff’s Data Request No. 110).

⁸⁸ Staff/401, Pal/21 (Idaho Power Company’s Supplemental Response to Staff’s Data Request No. 110 – Attachment 1).

1 processes that the route for which the Company seeks a CPCN avoids and minimizes
2 many impacts, and all unavoidable impacts will be mitigated to the extent required by law.

3 **Q. Does this conclude your Surrebuttal Testimony?**

4 A. Yes, it does.

BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON

Docket PCN 5

In the Matter of

IDAHO POWER COMPANY'S
PETITION FOR CERTIFICATE OF PUBLIC CONVENIENCE
AND NECESSITY

Surrebuttal Testimony of Mitch Colburn

Exhibit 1801

*In re Application for a Site Certificate for the Wheatridge
Wind Energy Facility, Final Order
(Apr. 2017)*

April 7, 2023

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

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

Issued by

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

April 2017

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Attachment C: Draft Revegetation Plan
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Attachment E: Site Certificate

Acronyms and Abbreviations

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

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

Oregon Department of Energy

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

I. INTRODUCTION

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

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

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

¹ ORS 469.300(26).

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

³ ORS 469.401(3).

⁴ ORS 469.430.

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

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

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

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

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

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

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6 ORS 469.320.

7 ORS 469.401(4).

8 ORS 469.403.

II. PROCEDURAL HISTORY

II.A. Notice of Intent

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

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

II.B. Application for Site Certificate

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

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

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

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

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

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

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

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

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

¹¹ WRWAPPDoc83 Order Hearing Officer Appointment, 2016-04-21

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

1 applicable to the Council's decision on this site certificate application are not further addressed
2 in this final order.¹³

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

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

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

15
16 Hearing Officer Frank received two requests for party status in the contested case.¹⁵ Following
17 a prehearing conference on September 23, 2016, and issuance of an *Amended Order on Party*
18 *Status, Authorized Representatives and Issues for Contested Case* on November 14, 2016,
19 Hearing Officer Frank granted party status to: (1) Irene Gilbert/Friends of the Grande Ronde
20 Valley¹⁶; and, (2) Umatilla Electric Cooperative.¹⁷ The applicant was considered a party under
21 ORS 469.370(5); and the department participated in the proceeding pursuant to OAR 345-015-
22 0080(2).

¹³ Issues raised by T. Lindsay, W. Seitz and J. & A. Gould on the record of the public hearing with respect to real estate, property values, and financial losses from lack of wildlife protection are not within Council's jurisdiction and are not considered in the final order. The issue raised by Ms. Gilbert/FGRV with respect to a request to develop a need standard for wind facilities is not relevant to the evaluation of this ASC. Comments to the DOE Legislative Oversight Committee from Mr. T. Lindsay, dated May 23, 2016, included with written comments received on June 6, 2016 from Ms. Gilbert/FGRV, relate to OAR 345-015-0220(5)(b) but do not raise an issue with an applicable Council standard the proposed facility must satisfy. WRWAPDoc115 Public Comment_T. Lindsay 2016-06-06; WRWAPDoc86 Public Comment_W. Seitz 2016-06-03; WRWAPDoc100 Public Comment_J&A Gould 2016-06-06; WRWAPDoc100 Public Comment_I. Gilbert 2016-06-06

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

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

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

¹⁷ Umatilla Electric Cooperative was granted limited party status.

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

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

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

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

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

31 **III. DESCRIPTION OF THE FACILITY** 32

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

36 **III.A. Location and Site Boundary** 37

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

¹⁸ The site certificate is included as Attachment E to this order.

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

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

¹⁹ ASC, Exhibit K, p. 8.

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

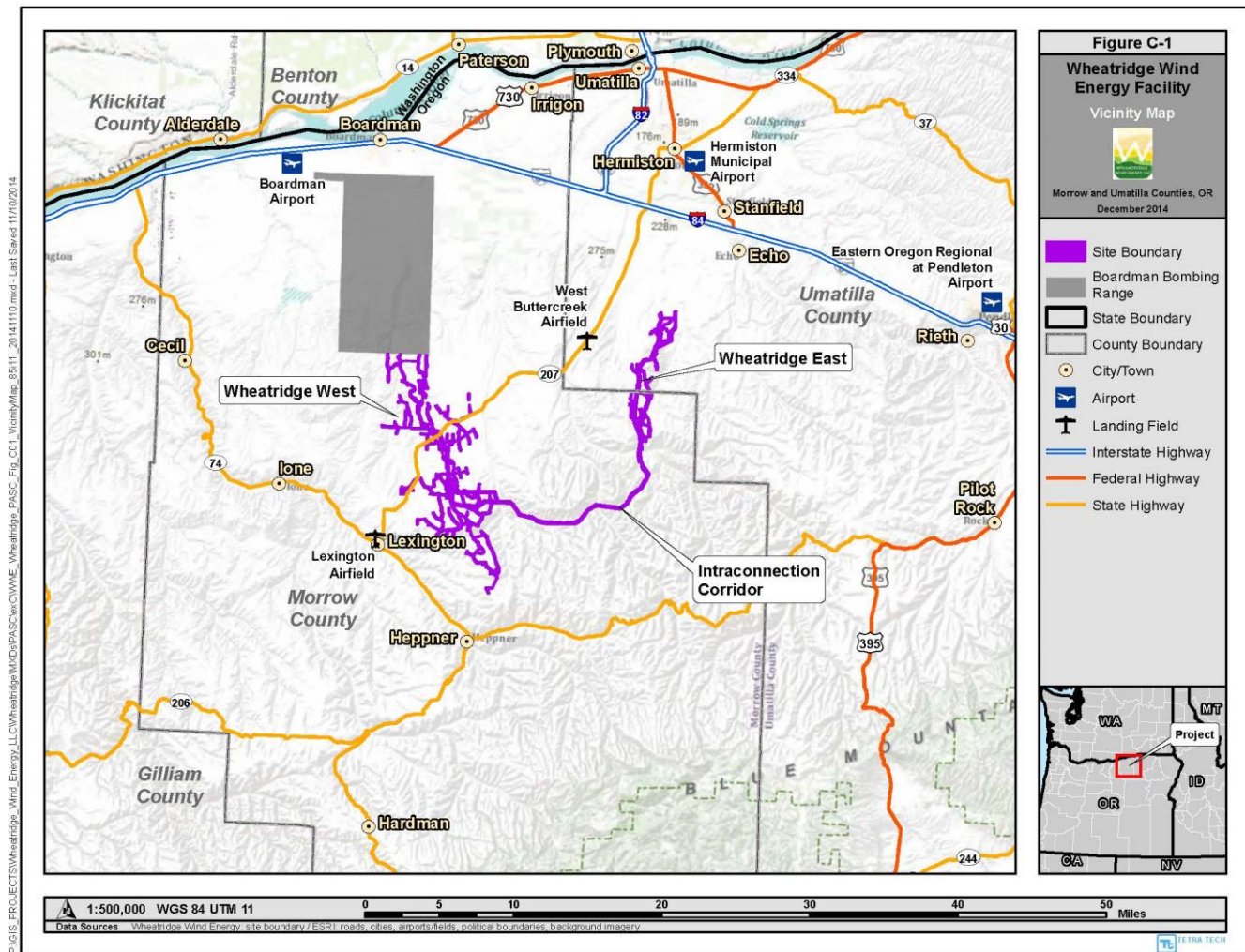
²¹ Pursuant to OAR 345-001-0010(55), the term “site boundary” means the perimeter of the site of a proposed energy facility and its related or supporting facilities, all temporary laydown and staging areas and all corridors proposed by the applicant. The term “energy facility site” means all land upon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

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

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

²³ WRWAPDoc68 Public Comment_I. Gilbert 2016-05-19; WRWAPDoc100 Public Comment_I. Gilbert 2016-06-06; WRWAPDoc115 Public Comment_T. Lindsay 2016-06-06.

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

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

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

III.B. The Facility

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

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

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

13 *Energy Facility*²⁸

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

²⁵ ASC, Exhibit B, p.4.

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

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

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

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

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

Table 1: Range of Turbine Specifications used for Impact Evaluations²⁹

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

Related or Supporting Facilities³⁰

The facility includes the following related or supporting facilities:

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

²⁹ ASC, Exhibit B, p.4.

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

Electrical Collection System

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

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

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

Collector Substations

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

230 kV Transmission Line

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

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

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

- Option 1: Two Project Substations to Longhorn (see ASC, Exhibit C, Figure C-9)
 - This option would run from Substation 3 in Wheatridge East to Substation 1 in Wheatridge West and then to the proposed UEC/CB Strawberry substation, just to the west of Wheatridge West, for interconnection to a UEC or UEC/CB operated Gen-tie Line to the proposed BPA Longhorn substation. The intraconnection line route would be 31.5 miles (50.5 kilometers) in length.
- Option 2: Three Project Substations to Longhorn
 - This option would run from Substation 3 in Wheatridge East to Substation 2b in Wheatridge West, then on to Substation 2a in Wheatridge West, and then to the proposed UEC/CB Strawberry substation, just west of Wheatridge West, for interconnection to a UEC or UEC/CB operated Gen-tie Line to the proposed BPA Longhorn substation. The intraconnection line route would be 31.3 miles (50.3 kilometers) in length.
- Option 3: Two Project Substations to Stanfield (see ASC, Exhibit C, Figure C-10)
 - This option would run from Substation 1 in Wheatridge West to Substation 3 in Wheatridge East for interconnection to a UEC operated Gen-tie Line to the proposed BPA Stanfield substation. The intraconnection line route would be 24.5 miles (39.4 kilometers) in length.
- Option 4: Three Project Substations to Stanfield
 - This option would run from Substation 2a in Wheatridge West to Substation 2b in Wheatridge West, and then to Substation 3 in Wheatridge East for interconnection to a UEC operated Gen-tie Line to the proposed BPA Stanfield substation. The intraconnection line route would be 27.8 miles (44.7 kilometers) in length.

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

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

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

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

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

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

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

³¹ ASC, Exhibit B, p.10.

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

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

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

Meteorological Towers

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

Communication and SCADA System

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

³² WRWAPPDoc100 DPO Public Comment_I. Gilbert 2016-06-06

O&M Buildings

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

Access Roads

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

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

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

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

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

14 15 Additional Construction Yards

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

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

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

35

33 On the record of the June 6, 2016 public hearing, Ms. Gilbert/FGRV commented that “the area of all roads being constructed or improved must be considered as part of the “site” and the area impacted must be included in the site as well as mitigation for permanent and temporary impacts.” New roads or existing roads that would be substantially modified in connection with the facility have been included as a related and supporting facilities. Recommended Soil Protection Condition 6, as amended in the proposed order, would restrict vehicle use during operation to constructed access roads and ensure that if roads not included in the ASC were needed to support facility construction or operation, that the certificate holder submit a request for and receive approval of an amendment to the site certificate. WRWAPDoc100 DPO Public Comment_I. Gilbert 2016-06-06.

1 To issue a site certificate for a proposed facility, the Council must determine that “the facility
2 complies with the applicable standards adopted by the Council pursuant to ORS 469.501 or the
3 overall public benefits of the facility outweigh any adverse effects on a resource or interest
4 protected by the applicable standards that the facility does not meet.”³⁴ The Council must also
5 determine that the proposed facility complies with all other applicable Oregon statutes and
6 administrative rules, as identified in the project order, excluding requirements governing design
7 or operational issues that do not relate to siting³⁵ and excluding compliance with requirements
8 of federally-delegated programs.³⁶ Nevertheless, the Council may consider these programs in
9 the context of its own standards to ensure public health and safety and protection of the
10 environment.³⁷

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

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

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

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

33

³⁴ ORS 469.503(1).

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

³⁶ ORS 469.401(4); ORS 469.503(3).

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

³⁸ ORS 469.401(2).

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

10 * * *

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

18 19 **Findings of Fact**

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

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

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

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

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

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

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

³⁹ ASC, Exhibit B, p. 19.

1
2 It is the Council's position that the applicant has not provided sufficient evidence to justify a six-
3 year deadline after issuance of the site certificate for the applicant to begin construction.
4 Instead, the Council sets a three-year deadline after issuance of the site certificate for the
5 applicant to begin construction, and a six year deadline after issuance of the site certificate to
6 complete construction.

7
8 On the record of the June 6, 2016 public hearing, the Morrow County Planning Department, on
9 behalf of the Morrow County Court, expressed that the three-year construction
10 commencement deadline established in recommended General Standard of Review Condition 1
11 of the draft proposed order, "does not give consideration to the applicant's evidence that a
12 longer lead in time is reasonable." As described above, ASC Exhibit B presents reasons the
13 applicant requests a 6-year construction commencement deadline including phased
14 construction, the normal rate of wind farm construction, the size of off-take agreements with
15 purchasers of the wind power, and forecasted demand in 2020. However, based on the
16 applicant's reasoning provided in ASC Exhibit B, the Council does not consider a longer
17 construction commencement deadline to be necessary. Specifically, based on the reasons
18 provided by the applicant, the Council was unable to determine how construction would be
19 phased, how the requested timeframes aligned with other wind farms to substantiate the
20 statement that the request represents the "normal rate of wind farm construction", or how the
21 requested timeframe would provide and allow for the applicant to secure take-off agreements.

22
23 Morrow County further suggested that due to recent adoption of higher renewable energy
24 requirements and the number of recent site certificate amendment requests for extension of
25 the construction commencement and completion deadlines, the Council should consider a 4 ½
26 year construction commencement deadline.⁴⁰ On the record of the June 6, 2016 public hearing,
27 the applicant concurred with Morrow County's comments on the construction commencement
28 deadline. Neither Morrow County nor the applicant provided detail or further explanation of
29 why the recently passed higher renewable energy requirements warrant a longer construction
30 commencement deadline.⁴¹ Moreover, if the site certificate were issued, likely at the earliest, in
31 2017, that provides through 2020 to start construction and through 2023 to complete
32 construction, which appears to align with future renewable portfolio standard dates (2020 and
33 2025) and would allow immediate and incremental delivery of service from the proposed
34 facility to the grid. In response to Morrow County's comment on the record of the public
35 hearing, the department noted that while amendment requests have recently been received
36 requesting construction commencement deadline extensions, the amendment requests have
37 often included other site certificate changes and were required to re-evaluate compliance with
38 all applicable standards and rules. Furthermore, as described above, the department viewed
39 the availability of process for a certificate holder to request an amendment to extend the
40 construction start deadline as justification for the Council to impose the recommended 3 year

⁴⁰ WRWAPPDoc117 DPO SAG Comment (Morrow County Court) 2016-06-06

⁴¹ WRWAPPDoc117 DPO SAG Comment (Morrow County Court) 2016-06-06

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Site Specific Conditions [OAR 345-027-0023]

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

Because the facility includes a 230 kV intraconnection transmission line, the Council adopts the following site specific condition:^{42,43}

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

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

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

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

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

1 The Council has also adopted rules at OAR Chapter 345, Division 26 to ensure that construction,
2 operation, and retirement of facilities are accomplished in a manner consistent with the
3 protection of public health, safety, and welfare and protection of the environment. These rules
4 include requirements for compliance plans, inspections, reporting and notification of incidents.
5 The certificate holder must construct the facility substantially as described in the site certificate
6 and the certificate holder must construct, operate, and retire the facility in accordance with all
7 applicable rules adopted by the Council in OAR Chapter 345, Division 26.⁴⁴

8 On the record of the public hearing, Ms. Gilbert/FGRV requested inclusion of a site certificate
9 condition that establishes a method of receiving complaints and a formal means of responding
10 to those complaints in order to: 1) identify areas of non-compliance with the site certificate; 2)
11 identify areas which are not providing adequate protection to the public; and, 3) identify areas
12 needing future legislative action. Ms. Gilbert/FGRV and T. Lindsay also requested that the
13 Council require the applicant to establish programs for monitoring the environmental and
14 ecological effects of the construction and operation of the proposed facility pursuant to ORS
15 469.507.⁴⁵

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

28 29 **Conclusions of Law**

30
31 Based on the foregoing findings of fact and conclusions of law, and subject to compliance with
32 the mandatory and site-specific conditions, the Council finds that the facility satisfies the
33 requirements of OAR 345-022-0000.
34
35

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

⁴⁵ WRWAPDoc68 DPO Public Comment_I. Gilbert 2016-05-19; WRWAPDoc100 DPO Public Comment_I. Gilbert 2016-06-06; WRWAPDoc115 DPO Public Comment_T. Lindsay 2016-06-06

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

Compliance with the Council's Organizational Expertise standard shall be determined following review of the following rule subparts:

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

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

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

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

Findings of Fact

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

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

Construction, Operation and Retirement of the Proposed Facility

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

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

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

⁴⁷ ASC, Exhibit D, p. 2.

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

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

⁵⁰ ASC, Exhibit D, p. 6.

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

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

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

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

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

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

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

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

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

ISO 9000 or ISO 14000 Certified Program

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

Third-Party Permits

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

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

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

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

3
4 **Organizational Expertise Condition 7:** Prior to construction, the certificate holder must
5 provide the department and Umatilla and Morrow Counties with the name(s) and
6 location(s) of the aggregate source and evidence of the source's county permit(s).
7

8 The applicant did not propose an interconnection transmission line to connect the facility to the
9 electrical grid as a related and supporting facility to the energy facility. Instead, the applicant
10 represented in ASC Exhibit B that the proposed facility would be connected to the grid via
11 overhead 230 kV transmission lines (also referred to as gen-tie lines) that would be permitted,
12 constructed, and owned by either Umatilla Electric Cooperative (UEC) or UEC in partnership
13 with Columbia Basin Electric Cooperative (CBEC). The applicant indicated that the
14 interconnection lines would be operated by BPA.⁵² The department noted that the ASC
15 submitted for the proposed facility is the first ASC that has not included a gen-tie line and
16 therefore represents the first time the Council has considered a proposed facility without a gen-
17 tie line as a related and supporting facility.
18

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

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

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

⁵⁴ On the record of the public hearing, CBEC stated that a tentative agreement between CBEC and the applicant was reached that addresses exclusive service territory issues. WRWAPPDoc88 DPO Public Comment (2nd Version) CBEC_2016-06-06.

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

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

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

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

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

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

⁵⁵ WRWAPDoc100 DPO Public Comment_I. Gilbert 2016-06-06. WRWAPDoc115 DPO Public Comment_T. Lindsay 2016-06-06.

1
2 In addition, because the applicant would be relying on a permit or approval issued to a third
3 party and that third party may not have the necessary permit or approval at the time the
4 Council would issue a site certificate, the Council adopts the following condition, which
5 prohibits the certificate holder from commencing construction until the third party permit is
6 issued:

7
8 **Organizational Expertise Condition 8:** Before beginning construction on any phase of
9 the facility, the certificate holder must provide evidence to the department and Morrow
10 and Umatilla counties that the third party that will construct, own and operate the
11 interconnection transmission line has obtained all necessary approvals and permits for
12 that interconnection transmission line and that the certificate holder has a contract with
13 the third party for use of the transmission line.

14
15 On the record of the public hearing, UEC stated that it has and will continue to coordinate with
16 CBEC and the applicant to ensure orderly and timely development of the gen-tie line consistent
17 with state and federal law. Similarly, CBEC stated that they will work with the applicant to meet
18 the transmission needs of the proposed facility.⁵⁶

19
20 During the contested case process, Ms. Gilbert raised the issue of whether the gen-tie line
21 should be considered a related and supporting facility to the energy facility. In the applicant's
22 Motion for Summary Judgement, filed prior to the deadline for filing written direct testimony,
23 the applicant argued that because the gen-tie line was not proposed by the applicant, that
24 there were not facts in dispute and therefore there was not a genuine issue of material fact
25 relevant to the question posed, and that as a matter of law the gen-tie line is not a related and
26 supporting facility.

27
28 In the Proposed Contested Case Order, the Hearing Officer recommended that, based upon the
29 Council's March 14, 2017 Order on Certified Questions, the Council appeared to agree with the
30 applicant's interpretation of "proposed by applicant" as that phrase is used in ORS 469.300(24).
31 Further, based upon the Council's March 14, 2017 Order on Certified Questions, the Hearing
32 Officer recommended that the phrase "proposed by applicant" of ORS 469.300(24) clearly and
33 definitively should be interpreted to mean that unless an applicant proposes a structure in its
34 ASC, regardless of the applicant's participation or level of involvement in planning of the
35 structure, the structure cannot be considered a related and supporting facility. In the Proposed
36 Contested Case Order, the Hearing Officer recommended that no additional or modified
37 conditions were needed to address the contested case issue.

38

⁵⁶ WRWAPPD89 DPO Public Comment UEC (R. Echenrode) 2016-06-06; WRWAPPD88 DPO Public Comment
(2nd Version) CBEC_2016-06-06

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

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

6 **Conclusions of Law**

7
8
9 Based on the evidence in the record, and subject to compliance with the recommended
10 conditions of approval, the Council finds that the applicant satisfies the requirements of the
11 Council's Organizational Expertise standard.

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

13
14
15 *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council*
16 *must find that:*

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

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

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

34
35 *(d) The applicant can design, engineer and construct the facility to avoid dangers to*
36 *human safety presented by the hazards identified in subsection (c).*
37

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

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

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

5 ***

7 **Findings of Fact**

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

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

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

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

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

⁶¹ ASC, Exhibit H, p. 3.

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

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

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

The Council must review the ASC against the EFSC standards and rules currently in effect. The current Structural standard (OAR 345-022-0020(1)(a)) requires use of the 2009 International Building Code (IBC), and the Division 21 application contents (OAR 345-021-0010(1)(h)) requires use of the 2010 Oregon Structural Specialty Code (OSSC) as well as the 2009 IBC. The IBC and the OSSC have both been updated since the versions referenced in the current EFSC rules; however, until the EFSC rules are updated to reflect the newer codes, the versions as stated in the current rule apply for purposes of compliance with the EFSC standard. However, as discussed below, the applicant has also provided information to confirm compliance with the current EFSC Structural standard requirement as well as the current OSSC, which was released in 2014.⁶³

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

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

⁶³ ASC, Exhibit H, p. 1.

⁶⁴ WRWAPPDoc28, Agency Comment DOGAMI, 08-27-2015.

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

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

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

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

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

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

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

⁶⁵ ASC, Exhibit H, p. 9.

⁶⁶ ASC, Exhibit H, p. 10.

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

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

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

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

Ground Shaking

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

⁶⁷ ASC, Exhibit H, pp. 12-16.

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

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

Fault Rupture

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

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

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

⁶⁸ ASC, Exhibit H, p. 17.

⁶⁹ ASC, Exhibit H, p. 18.

⁷⁰ In the draft proposed order, recommended Structural Standard Condition 3 stated, “The site certificate holder shall include as part of the geotechnical investigation recommended by Structural Standard Condition 1, an investigation of all potentially active faults within the site boundary, including the fault labeled as 2438 on Figures H-1 and H-2. The investigation shall include a description of the potentially active faults, their potential risk to the project, and any additional mitigation that will be undertaken by the site certificate holder to ensure safe design, construction, and operation of the facility.”

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

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

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

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

32 *Liquefaction and Subsidence* 33

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

⁷¹ WRWAPDoc73 DPO Public Comment_I. Gilbert 2016-05-19

⁷² ASC, Exhibit H, pp. 18-19.

Landslides

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

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

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

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

⁷³ WRWAPPDoc28, Agency Comment DOGAMI, 08-27-2015.

⁷⁴ In the draft proposed order, recommended Structural Standard Condition 4 stated, "The site certificate holder shall include as part of the geotechnical investigation recommended by Structural Standard Condition 1 an investigation of specific areas with potential for slope instability and shall site turbine strings appropriate to avoid potential hazards. The landslide hazards shall be investigated and mapped before final facility layout and design. The landslide hazard evaluation shall be conducted by a combination of lidar and field work."

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

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

Volcanic Activity

The applicant stated that volcanic activity that could impact the facility is extremely unlikely as potentially active volcanos are well west of the site boundary.⁷⁵

Mass Washing and Landslides

Landslide hazards are described above.

Erosion

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

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

General erosion control measures:

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

Specific erosion and sediment control measures include:

⁷⁵ ASC, Exhibit H, p. 19.

- Avoid highly erodible areas;
- Stabilize road entrances and exits;
- Preserve and restore vegetation;
- Control dust;
- Install silt fencing and straw wattles;
- Apply gravel and mulching;
- Install stabilizing matting;
- Control concrete washout areas;
- Manage soil stockpiles;
- Install check dams, sediment traps, and sediment basins; and
- Manage soil erosion by wind.

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

Collapse of Potential Loess

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

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

⁷⁶ In the draft proposed order, recommended Structural Standard Condition 5 stated, “The certificate holder shall include as part of the geotechnical investigation recommended by Structural Standard Condition 1, an investigation of the swell and collapse potential of loess soil in the site boundary. Based on the results of the investigation, the site certificate holder shall include mitigation measures including, as necessary, over-excavating and replacing loess with structural fill, wetting and compacting, deep foundations, or avoidance of specific areas.”

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

Conclusions of Law

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

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

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

Findings of Fact

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

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

⁷⁷ The acreage totals presented are from Exhibit C of the ASC.

Existing Soil Conditions and Land Use

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

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

Potential Adverse Impacts to Soil

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

Construction

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

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

⁷⁹ ASC, Exhibit I, pp. 2-7.

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

8 9 *Operation*

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

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

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

⁸⁰ ASC, Exhibit I, pp. 7-10.

⁸¹ ASC, Exhibit I, pp. 10-11.

gallons would be stored in oil-qualified equipment.⁸² The Council concurs and imposes Soil Protection Condition 5 in the site certificate.

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

Measures to Mitigate Potential Adverse Impacts to Soils during Construction

Erosion Concerns

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

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

⁸³ WRWAPPDoc52, Agency Comment DEQ, 03-11-2015.

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

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

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

⁸⁴ ASC, Exhibit I, pp. 11-12.

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

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

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

⁸⁵ In the draft proposed order, recommended Soil Protection Condition 2 stated, “The erosion and sediment control best management practices and measures as described in ASC Exhibit I, Section 5.2 and listed in the final order approving the site certificate shall be included and implemented as part of the final Erosion and Sediment Control Plan.”

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

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

Potential Soil Impacts from Spills

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

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

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

- Preventative Measures and Procedures to Avoid Spills
 - Procedures for chemical storage
 - Procedures for chemical transfer
 - Procedures for chemical transportation
 - Procedures for fueling and maintenance of equipment and vehicles
 - Employee training and education
- Clean-up and response procedures, in case of an accidental spill or release
- Proper storage procedures
- Reporting procedures in case of an accidental spill or release

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

⁸⁷ ASC, Exhibit G, p. 5.

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

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

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

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

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

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

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

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

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

Measures to Mitigate Adverse Impacts to Soils during Proposed Facility Operation

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

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

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

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

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

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

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

⁹² ASC, Exhibit G, p. 8.

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

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

- Procedures for chemical transportation
- Procedures for fueling and maintenance of equipment and vehicles
- Employee training and education
- Clean-up and response procedures, in case of an accidental spill or release
- Proper storage procedures
- Reporting procedures in case of an accidental spill or release

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

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

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

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

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

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

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

⁹⁶ WRWAPPDoc68 DPO Public Comment_I. Gilbert 2016-05-19

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

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

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

Monitoring

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

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

Conclusions of Law

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

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

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

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

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

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

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

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

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

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

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

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

Findings of Fact

Under OAR 345-021-0010(1)(k), an applicant must elect 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 469.504(1)(b). As stated in the ASC, the applicant elected to have the Council make the land use determination under ORS 469.504(1)(b) and OAR 345-022-

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

3
4 The Council must apply the Land Use standard in conformance with the requirements of ORS
5 469.504. Under ORS 469.504(1)(b)(A), the Council may find compliance with statewide planning
6 goals if the Council finds that the proposed facility "complies with applicable substantive
7 criteria from the affected local government's acknowledged comprehensive plan and land use
8 regulations that are required by the statewide planning goals and in effect on the date the
9 application is submitted." The applicant submitted a pASC on December 19, 2014. As described
10 in Exhibit C of the ASC, the facility would be located in portions of Umatilla and Morrow
11 counties; therefore, Umatilla and Morrow counties are the affected local governments for
12 purposes of the evaluation necessary for compliance with the Council's Land Use standard.
13 The land use analysis begins with the identification of "applicable substantive criteria" from the
14 affected local governments. As the governing body of Umatilla and Morrow counties, the
15 Council appointed the Umatilla County Board of Commissioners and the Morrow County Court
16 as the SAGs for the proposed facility on November 2, 2012.¹⁰⁰ The department provided notice
17 of the pASC and complete ASC to the SAGs on January 7, 2015 and July 16, 2015, respectively.
18 Umatilla County provided applicable substantive criteria including provisions from Umatilla
19 County's 2014 Development Code (UCDC) and Umatilla County's 2014 Comprehensive Plan
20 (UCCP). Morrow County provided applicable substantive criteria including provisions from the
21 Morrow County Zoning Ordinance (MCZO), Fish and Wildlife Habitat Protection Plan for
22 Morrow County (dated January 1979) and Morrow County Comprehensive Plan (MCCP). The
23 applicant indicates that Exhibit K demonstrates that the facility would comply with all of the
24 applicable substantive criteria in both Morrow and Umatilla County.

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

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

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

¹⁰⁰ WRWNOIDoc039, SAG Appointment Umatilla and Morrow Counties, 11-02-2012.

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

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

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

IV.E.1 Morrow County

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

Morrow County Applicable Substantive Criteria

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

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

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

Table LU-1: Applicable Substantive Criteria¹⁰⁴

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

Morrow County Zoning Ordinance

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

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

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

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

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

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

Article 3. Use Zones

MCZO Section 3.010 Exclusive Farm Use, EFU Zone

In an EFU Zone, the following regulations shall apply:

Section 3.010.A. PURPOSE

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

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

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

Section 3.010.C. USES PERMITTED OUTRIGHT.

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

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

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

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

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

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

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

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

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

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

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

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

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

23
24 As described in Exhibit B, the facility would include up to two parallel transmission lines
25 (intraconnection lines) extending up to 32 miles in total length. The intraconnection lines would
26 be located entirely within EFU zoned land of Morrow and Umatilla counties. Consistent with
27 past site certificate orders, the Council reviews the intraconnection lines as “utility facilities
28 necessary for public service” because the intraconnection transmission structures and lines are
29 indistinguishable from interconnection or other types of transmission towers or lines. Utility
30 facilities necessary for public service are permitted in the EFU zone, subject to the criteria
31 established in OAR 660-033-0130(16), which mirror the requirements of ORS 215.275.
32 Notwithstanding the language in the County’s code, the conditional use requirements beyond
33 those that are consistent with ORS 215.275 are not applicable to the intraconnection lines

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

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

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

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

9
10 The Council finds that the intraconnection transmission line is a utility facility necessary for
11 public service, a use permitted in the EFU zone subject to compliance with OAR 660-033-
12 0130(16) and ORS 215.275.

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

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

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

33

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

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

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

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

13
14 Based on the County's request for specific setbacks and the applicant's response and
15 representations, the Councils adopt the following conditions with administrative changes
16 included in the proposed order:

17
18 **Land Use Condition 1:** The certificate holder shall design the facility to comply with the
19 following wind turbine setback distances in Morrow County:

- 20
21 a. Wind turbines shall be setback from the property line of any abutting property of
22 any non-participant property owners a minimum of 110 percent of maximum blade
23 tip height of the wind turbine tower.
24 b. Wind turbines shall be setback 100 feet from all property boundaries, including
25 participant property boundaries within the site boundary, if practicable.
26 c. Wind turbine foundations shall not be located on any property boundary, including
27 participant property boundaries within the site boundary.

28
29 **Land Use Condition 2:** Within one month of commencement of commercial operation,
30 the certificate holder shall submit an as-built survey for each construction phase that
31 demonstrates compliance with the setback requirements in Land Use Condition 1 to the
32 department and Morrow County.

33 34 Article 4. Supplementary Provisions

35 36 *Section 4.165 Site Plan Review*

37
38 *Site Plan Review is a non-discretionary or "ministerial" review conducted without a public*
39 *hearing by the County Planning Director or designee. Site Plan Review is for less complex*
40 *developments and land uses that do not require site development or conditional use review*
41 *and approval through a public hearing.*

¹¹¹ Id.

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

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

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

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

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

33
34 *D. Review Criteria.*

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

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

¹¹⁴ WRWAPPDoc10, Morrow County Comment, 02-09-2015.

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

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

6
7 *(2) The proposed land use is permitted by the underlying land use district.*
8

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

13
14 *(3) The land use, building/yard setback, lot area, lot dimension, density, lot*
15 *coverage, building height and other applicable standards of the underlying*
16 *land use district and any sub-district(s) are met.*
17

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

23
24 *(4) Development in flood plains shall comply with Section 3.100 Flood Hazard*
25 *Overlay Zone of the Ordinance.*
26

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

32
33 In revised Exhibit K, the applicant further explained that if improvements not meeting the
34 definition of a structure under MCZO Section 3.100 are developed within flood hazard areas,
35 they would either be located underground and not susceptible to flood damage, or consist of
36 transmission lines high above the ground and with sufficient foundations or pole bedding to
37 withstand even the most severe flood. The applicant explained that these types of improvements
38 would not substantively alter the flood regime or flood water storage volume, and therefore
39 would not exacerbate a flood hazard locally or elsewhere along a stream. Based on this analysis,
40 the Council finds that the applicant has demonstrated that the design of the facility would be
41 consistent MCZO Section 3.100.
42

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

¹¹⁶ ASC, Exhibit O, Attachments O-1 through O-4.

¹¹⁷ ASC, Exhibit K, p. 14.

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

8
9 *(13) The applicant shall obtain the necessary access permit through the Public*
10 *Works Department as required by Morrow County Resolution R-29-2000.*
11

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

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

21
22 *E. Submittal Requirements. A site plan shall be submitted including all of the following*
23 *information except for specific items determined at the pre-application review not to be*
24 *applicable. All site plans shall have dimensions clearly indicated. An applicant may*
25 *provide the information on separate sheets, if necessary or desirable for clarity.*
26

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

30 Article 6. Conditional Uses

31 SECTION 6.015. REQUIREMENTS UNDER A STATE ENERGY FACILITY SITE CERTIFICATE.

32
33 *If a holder of a Site Certificate issued by the Oregon Energy Facility Siting Council requests a*
34 *conditional use permit for an energy facility as outlined under ORS 469.401(3) and pays the*
35 *requisite fee, the Planning Director shall issue such conditional use permit. The conditional*
36 *use permit shall incorporate only the standards and conditions in Morrow County's land use*
37 *and other ordinances as contained in the site certificate. Issuance of the Conditional Use*
38 *Permit shall be done promptly, not taking more than four weeks once it has been*
39 *determined that a valid Site Certificate has been issued, the applicant has submitted a*
40 *complete application and the fee has been received.*
41
42
43

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

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

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

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

31
32 **SECTION 6.020 GENERAL CRITERIA.**

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

40

¹¹⁸ WRWAPPDoc10, Morrow County Comment, February 9, 2015.

¹¹⁹ Id.

1 A. *The proposal will be consistent with the Comprehensive Plan and the objectives of*
2 *the Zoning Ordinance and other applicable policies and regulations of the County.*

3
4 B. *If located within the Urban Growth Boundary of a city, that said city has had an*
5 *opportunity to review and comment on the subject proposal.*

6
7 C. *The proposal will not exceed carrying capacities of natural resources or public*
8 *facilities.*

9
10 MCZO Section 6.020(A) requires that conditional use permit applications establish compliance
11 with the MCCP, MCZO and other applicable policies and regulations of the County. Compliance
12 with the provisions of the MCCP identified by Morrow County as applicable substantive criteria
13 is discussed below. Compliance with zoning ordinance and other county policies and
14 regulations is discussed throughout this section. Therefore this criterion is satisfied upon a
15 determination that the facility satisfies the identified applicable substantive criteria.

16
17 Subsection B applies only to conditional use permit applications within an urban growth
18 boundary. The facility would not be located within the urban growth boundary and therefore
19 this criterion does not apply.

20
21 Subsection C requires that the facility not exceed carrying capacities of natural resources or
22 public facilities. MCZO Section 1.030 defines “carrying capacity” as the “level of uses that can be
23 accommodated and continued without irreversible impairment of natural resources
24 productivity, the ecosystem, and the quality of air, land and water resources.” The applicant
25 addressed impacts on Morrow County public facilities in ASC Exhibit U. Those impacts are
26 evaluated and addressed in Section IV.M, *Public Services* of this final order. As discussed in that
27 section, the Council finds that, subject to compliance with the recommended conditions, the
28 facility would not be likely to result in a significant adverse impact to the ability of service
29 providers to provide the necessary services. The evaluation in Section IV.M, *Public Services* also
30 supports a finding that, with the imposition of the conditions, the facility would not exceed the
31 carrying capacities of public facilities.

32
33 The applicant addresses facility impacts to soils, surface or groundwater resources, and
34 protected plant and animal species and their habitats in Exhibits I, J, O, P and Q. The Council has
35 evaluated those impacts in Sections IV.D, *Soil Protection*, IV.H, *Fish and Wildlife Habitat*, IV.I,
36 *Threatened and Endangered Species*, IV.S, *Removal-Fill Law*, and IV.T, *Water Rights* of this final
37 order. As discussed in the relevant sections, the Council finds that, subject to compliance with
38 the conditions, those natural resource Council standards have been satisfied. The identified
39 sections also support a finding that, with the imposition of the conditions, the facility would not

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

3
4 *Section 6.025 Resource Zone Standards for Approval*

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

- 8
9 1. *Force a significant change in accepted farm or forest practices on surrounding*
10 *lands devoted to farm or forest use; or*
11
12 2. *Significantly increase the cost of accepted farm or forest practices on surrounding*
13 *lands devoted to farm or forest use.*
14

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

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

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

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

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

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

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

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

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

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

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

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

¹²⁶ ASC, Exhibit K, pp. 9-10.

- 1
- 2 • Land permanently lost to farm use due to siting of permanent Project improvements is a
- 3 de minimis percentage of the total farm use land in Morrow County; therefore the
- 4 inability to use the land for farm purposes is not significant.
- 5
- 6 • Project Site Access Roads and other facilities would be constructed and maintained by
- 7 Wheatridge, such that the cost burden for maintenance does not fall upon the farm or
- 8 ranch owners.
- 9
- 10 • Private access roads improved or developed for the Project would benefit agricultural
- 11 users of the land through improved access to farm fields and resulting lower fuel costs.
- 12
- 13 • Wheatridge will implement a weed control plan consistent with the Morrow County
- 14 Weed Control Ordinance, which will reduce the risk of weed infestation in cultivated
- 15 land and the associated cost to the farmer for weed control.
- 16
- 17 • Wheatridge will record a covenant not to sue against its Project leasehold interests with
- 18 regard to generally accepted farming practices on adjacent farmland.
- 19
- 20 • Construction and operation of the Project could cause changes in routes of access to
- 21 fields and changes in the pattern of cultivation, seeding, fertilizing and harvesting near
- 22 the turbines and Site Access Roads. To minimize this, Wheatridge, in consultation with
- 23 the landowners, has laid out the facility components to minimize obstacles to farming in
- 24 cultivated fields (facility components around which the farmer would have to plow,
- 25 plant and harvest).
- 26
- 27 • Wheatridge will consult with area landowners during construction and operation of the
- 28 facility to determine further measures to reduce or avoid any adverse impacts to farm
- 29 practices on surrounding lands and to avoid any increase in farming costs.
- 30
- 31 • Construction of the Project could adversely affect soil quality by erosion or compaction.
- 32 Some farmland would be temporarily disturbed and unavailable for farming during
- 33 construction. To avoid or reduce adverse impacts to soil quality, Wheatridge will
- 34 implement dust control and erosion-control measures during construction and
- 35 operation of the facility (see Exhibit I). To the extent practicable, Wheatridge proposes
- 36 to reduce impact to soils by using areas that are already disturbed and limiting the area
- 37 of new disturbance.
- 38
- 39 • Construction vehicles will use previously disturbed areas including existing roadways
- 40 and tracks. When practical, temporary Construction Yards and laydown areas will be
- 41 located within the future footprint of permanent structures. The width of new
- 42 permanent roadways will be the minimum consistent with safe use. Underground
- 43 communication and electrical lines will be buried within the area disturbed by

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

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

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

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

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

¹²⁷ WRWAPPDoc86 DPO Public Comment_W. Seitz 2016-06-03; WRWAPPDoc115 DPO Public Comment_T. Lindsay 2016-06-06.

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

1 use standards required under MCZO 6.025(A)(1) and (2) are identical to the conditional use
2 standards included in ORS 215.296.¹²⁹ The MCZO 6.025 standards are addressed in ASC Exhibit
3 K and are evaluated above.

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

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

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

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

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

2. Agricultural aircraft require a turn diameter of up to one-half mile at the end of each spray run. Turbine strings are spaced approximately one-half to 1 mile apart, and turbines within the strings are spaced 700 to 1,000 feet apart. This spacing is necessary to minimize turbulence and wake loss between and within turbine strings, and leaves ample space for pilots to navigate between and around them. Therefore, the turbines do not pose a significant change to aerial spraying practices.
3. Some agricultural pilots have pointed to increased air turbulence as a serious concern for aerial spraying; however, turbulence related to wind turbines appears to be less of an issue than the obstacle to flight presented by the turbine itself. Wind turbines are known to create turbulence as wind passes through the rotor; the resulting wake is known to extend from a minimum of 6 blade diameters downwind, to as far as 20 blade diameters downwind. The wake gradually expands downwind from the rotor as the turbulent air mixes with the ambient laminar flow. The magnitude of wake turbulence is directly related to wind and rotor speed; at very low wind speeds little wake turbulence is generated, while under strong wind conditions the wake turbulence can be significant.

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

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

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

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

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

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

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

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

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

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

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

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

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

34
35 **Land Use Condition 8:** During construction, the certificate holder shall comply with the
36 following requirements:

- 37 a. Construction vehicles shall use previously disturbed areas including existing
38 roadways and tracks.
39 b. Temporary construction yards and laydown areas shall be located within the future
40 footprint of permanent structures to the extent practicable.

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

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

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

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

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

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

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

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

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

¹³² ASC, Exhibit K, pp. 9-10.

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

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

SECTION 6.030. GENERAL CONDITIONS

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

The applicant correctly notes that pursuant to ORS 469.401(3), Morrow County is bound by a site certificate issued by the Council and must issue a conditional use permit subject only to the conditions included in the site certificate. However, in determining whether the facility satisfies the applicable substantive criteria, the Council has the same authority that the Morrow County decision making body would have to impose conditions the Council finds necessary under the Morrow County General Conditions provisions. In its comments on the pASC, Morrow County specifically requested that the applicant address the General Conditions identified in Section 6.030, but did not recommend any additional conditions for purposes of compliance with Section 6.030.¹³³

These conditions may include the following:

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

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

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

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

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

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

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

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

36

¹³⁴ On the record of the public hearing, commenters raised issues regarding the proposed facility's potential lighting impacts/visual intrusion to their property. W. and L. Seitz raised issues regarding health impacts from sleeplessness, headaches, annoyance and stress from flashing lights associated wind turbine operations. Turbine lighting is a federal safety requirement imposed by the FAA. As explained in Section IV. E, *Land Use* and Section IV.J. *Scenic Resources*, the Council imposes several conditions to reduce visual impacts and glare on surrounding properties. WRWAPDoc115 DPO Public Comment_T. Lindsay 2016-06-06; WRWAPDoc101 DPO Public Comment J_A Gould 2016-06-06; WRWAPDoc86 DPO Public Comment_W. Seitz 2016-06-03.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

33
34 *1. It is the responsibility of the land owner to provide appropriate access for*
35 *emergency vehicles at the time of development. (MC-C-8-98)*
36

37 The applicant explained that all access roads would be constructed to accommodate heavy
38 construction equipment, and therefore the access roads would also be suitable for emergency
39 vehicles. The Council agrees, and does not impose additional conditions under this provision.
40

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

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

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

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

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

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

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

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

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

¹³⁵ WRWAPPDoc10, Morrow County Comment, February 9, 2015.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

30 31 **Fish and Wildlife Protection Plan for Morrow County** 32

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

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

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

13
14 The Council finds that based upon the information submitted by the applicant, the evaluation
15 above and in Section IV.H, *Fish and Wildlife Habitat* of this final order, and subject to
16 compliance with conditions imposed in Section IV.H, *Fish and Wildlife Habitat* of this final order,
17 the facility would be consistent with the Protection Plan.

18 19 **Morrow County Comprehensive Plan**

20
21 *Agricultural Policy 1: It shall be the policy of Morrow County, Oregon, to preserve*
22 *agricultural lands, to protect agriculture as its main economic enterprise, to balance*
23 *economic and environmental considerations, to limit non-compatible nonagricultural*
24 *development, and to maintain a high level of livability in the County.*

25
26 The applicant argued that wind energy facilities are not inconsistent with an agriculturally-
27 focused economy and land base, and pointed to the multitude of existing wind projects in
28 productive agricultural areas of Morrow County and elsewhere in the state and region to
29 support this position. The applicant further stated that the facility would provide an economic
30 benefit to Morrow County, would not degrade the environment and would provide positive
31 environmental effects by reducing greenhouse gases and combating climate change. Finally, the
32 applicant contended that wind projects have not been shown to have any significant
33 deleterious effect on livability in Morrow County or other rural areas. Finally, the applicant noted
34 that wind projects are expressly permitted in the Morrow County EFU zone. In comments on the
35 ASC, Morrow County added that this agricultural policy is further implemented under the EFU
36 policy statement which encourages activities compatible with farm use, and the County
37 concludes that the applicant has accomplished that policy goal.¹³⁸

38
39 While the applicant made general statements about the benefits and impacts of a wind facility
40 on agricultural lands, the most important factor is that wind power generation facilities are

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

¹³⁸ WRWAPPDoc42, SAG Comment Morrow County, 08-31- 2015, p. 2.

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

Based upon the analysis provided above, the Council finds that the facility would be consistent with MCCC Agricultural Policy 1.

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

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

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

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

IV.E.2 Umatilla County

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

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

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

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

for purposes of the applicant's ASC. Umatilla County believes that the applicant must identify and include an interconnection transmission line in its ASC and has provided extensive comments to that effect.¹⁴¹ Those comments are fully addressed below.

Umatilla County Applicable Substantive Criteria

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

Table LU-2: Applicable Substantive Criteria

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

Umatilla County Development Ordinance

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

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

¹⁴² WRWNOIDoc42, Umatilla County Comment, 04-12-13.

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

21 *152.059 Land Use Decisions*

22

23 *In an EFU zone the following uses may be permitted through a land use decision via*
24 *administrative review (§152.769) and subject to the applicable criteria found in*
25 *§152.617. Once approval is obtained a zoning permit (§152.025) is necessary to finalize*
26 *the decision.*
27

28 *(C) Utility facilities necessary for public service, including wetland waste treatment*
29 *systems but not including commercial facilities for the purpose of generating electrical*
30 *power for public use by sale or transmission or communication towers over 200 feet in*
31 *height. A utility facility necessary for public service may be established as provided in*
32 *ORS 215.275 and in §152.617(II)(7).*
33

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

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

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

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

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

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

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

24
25 *152.060 CONDITIONAL USES PERMITTED.*

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

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

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

¹⁴⁴ WRWNOIDoc42, Umatilla County Comment, 04-12-13, p. 4; WRWAPDoc17, SAG Comment UBOC, 02-12-2015.

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

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

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

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

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

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

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

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

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

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

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

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

5
6 Within the 1,702 acre portion of the site boundary in Umatilla County, approximately 1,689
7 acres are considered devoted to farm use per ORS 215.203; of this, approximately 1,189 acres
8 are currently used for dryland winter wheat farming or irrigated agriculture, and the remainder
9 is nonnative and native grasslands. Through Figures K-9 and K-10, the applicant provided a
10 detailed depiction of farm and other land uses within the analysis area and depicted land cover
11 classifications. The applicant also provided acreages and percentages of the land uses in the
12 analysis area and in the site boundary in Table 1 of Attachment K-1. The table includes the
13 acreages and percentage of both irrigated and non-irrigated agriculture, habitat lands,¹⁴⁹ and
14 developed lands both within the analysis area and within the site boundary, and provides both
15 the total acreages and the acreages for each county. Within Umatilla County, non-irrigated
16 agriculture comprises 2,843.9 acres of the analysis area and 864.3 acres of the site boundary;
17 irrigated agriculture comprises 516.9 acres of the analysis area and is not present in the site
18 boundary; and habitat land comprises 3,420.5 acres of the analysis area and 818.1 acres of the
19 site boundary.¹⁵⁰

20
21 As the applicant explained in ASC Exhibit K Attachment K-1 and depicted in the figures, the
22 majority of the land within the analysis area is devoted to dryland winter wheat farming
23 predominantly producing soft white winter wheat.¹⁵¹ The applicant also explained that some
24 cattle grazing occurs in limited areas in and around the analysis area. The remainder of the
25 lands devoted to farm use appear to be grasslands that would satisfy the definition of
26 wastelands.

27
28 The applicant also provided a detailed description of the accepted farming practices that occur
29 on the surrounding lands devoted to farm use in ASC Exhibit K Attachment K-1. Specifically,
30 Attachment K-1 describes the planting cycles for winter wheat, field preparation techniques,
31 common farming equipment, aerial spraying by helicopter and/or airplane, irrigation
32 techniques in the small areas of irrigated agriculture, and access issues.¹⁵²

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

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

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

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

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

1
2 The applicant asserted that the facility would not force a significant change in accepted farm
3 practices or significantly increase the cost of farm practices. To support that position, the
4 applicant provided the following list of reasons:¹⁵³

- 5
6 • Facility components and temporary construction laydown and staging areas would be
7 sited to minimize disturbance to farming operations.
8
- 9 • Land permanently lost to farm use due to siting of permanent Project improvements is a
10 de minimis percentage of the total farm use land in Umatilla County; therefore the
11 inability to use the land for farm purposes is not significant.
12
- 13 • Project Site Access Roads and other facilities would be constructed and maintained by
14 Wheatridge, such that the cost burden for maintenance does not fall upon the farm or
15 ranch owners.
16
- 17 • Private access roads improved or developed for the Project would benefit agricultural
18 users of the land through improved access to farm fields and resulting lower fuel costs.
19
- 20 • Wheatridge will implement a weed control plan consistent with the Umatilla County
21 Weed Control Ordinance, which will reduce the risk of weed infestation in cultivated
22 land and the associated cost to the farmer for weed control.
23
- 24 • Wheatridge will record a covenant not to sue against its Project leasehold interests with
25 regard to generally accepted farming practices on adjacent farmland.
26
- 27 • Construction and operation of the Project could cause changes in routes of access to
28 fields and changes in the pattern of cultivation, seeding, fertilizing and harvesting near
29 the turbines and Site Access Roads. To minimize this, Wheatridge, in consultation with
30 the landowners, has laid out the facility components to minimize obstacles to farming in
31 cultivated fields (facility components around which the farmer would have to plow,
32 plant and harvest).
33
- 34 • Wheatridge will consult with area landowners during construction and operation of the
35 facility to determine further measures to reduce or avoid any adverse impacts to farm
36 practices on surrounding lands and to avoid any increase in farming costs.
37

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

¹⁵³ ASC, Exhibit K, pp. 19-20.

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

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

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

¹⁵⁴ WRWAPPDoc86 DPO Public Comment_W. Seitz 2016-06-03; WRWAPPDoc115 DPO Public Comment_T. Lindsay 2016-06-06.

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

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

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

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

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

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

23
24 *152.615 Additional Conditional Use Permit Restrictions*

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(1) The landowners/farm tenants.

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

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

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

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

(6) Umatilla County Planning Commission member.

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

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

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

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

4
5 (3) An Operations and Maintenance Plan detailing expected work force, local
6 response capability (contract or otherwise), controlled access, and in the case of
7 transmission lines proof of emergency response capability in accordance with
8 OPUC rules governing operation and maintenance of such lines.

9
10 (4) An Emergency Response Plan for responding to natural and/or man made
11 emergencies or disasters.

12
13 (i) A Weed Control Plan addressing prevention and control of all Umatilla County
14 identified noxious weeds, directly resulting from the Wind Power Generation
15 Facility during preparation, construction, operation and demolition/restoration.

16
17 (j) A Socioeconomic Impact Assessment of the Wind Power Generation Facility,
18 evaluating such factors as, but not limited to, the project's effects upon the
19 social, economic, public service, cultural, visual, and recreational aspects of
20 affected communities and/or individuals. These effects can be viewed as either
21 positive or negative. In order to maximize potential benefits and to mitigate
22 outcomes that are viewed as problematic, decision makers need information
23 about the socioeconomic impacts that are likely to occur.

24
25 (k) Information pertaining to the impacts of the Wind Power Generation Facility on:

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

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

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

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

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

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

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

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

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

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

¹⁵⁷ WRWAPPDoc17, SAG Comment UBOC, 02-12-2015; WRWAPPDoc34, SAG Comment UBOC, 09-16-2015.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

¹⁶⁰ ASC, Exhibit K, Figures K-7 and K-8.

¹⁶¹ In the draft proposed order, Land Use Condition 16 stated, "Wind turbines shall be setback a minimum of 110% of the overall tower-to-blade tip height from the boundary right-of-way of county roads and state and interstate highways in Umatilla County." In the proposed order, the department recommended the Council administratively amend the condition clarifying that the condition applies during micrositing of the facility.

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

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

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

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

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

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

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

38
39 *(b) Reasonable efforts shall be made to blend the wind turbine/towers with the natural*
40 *surrounding area in order to minimize impacts upon open space and the natural*
41 *landscape.*
42

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

14
15 Based on the evaluation provided above, and subject to compliance with the identified
16 conditions, the Council finds that the facility would satisfy the Umatilla County the standard.

17
18 *(c) The development and operation of the Wind Power Generation Facility will include*
19 *reasonable efforts to protect and preserve existing trees, vegetation, water resources,*
20 *wildlife, wildlife habitat, fish, avian, resources, historical, cultural and archaeological*
21 *site.*

22
23 The applicant indicated that the design and development plan for the facility included efforts to
24 protect and preserve existing vegetation, wildlife and wildlife habitat (including avian
25 resources), and historic, cultural and archeological resources. Impacts on these resources are
26 described in Exhibits P, Q and S. The impacts are further discussed and evaluated in the context
27 of the Council's standards in the Fish and Wildlife Habitat (Section IV.H), Threatened and
28 Endangered Species (Section IV.I), and Historic, Cultural and Archeological Resources (Section
29 IV.K) sections of this final order. The Council adopts conditions of approval in each of those
30 sections that generally protect and preserve the identified resources. The applicant represents
31 in Exhibits J and O that the facility would have no impact upon fish or water resources.

32
33 Based on the evaluation provided above, and subject to compliance with the conditions in the
34 identified sections, the Council finds that the facility would satisfy this Umatilla County
35 standard.

36
37 *(d) The turbine towers shall be designed and constructed to discourage bird nesting and*
38 *wildlife attraction.*
39

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

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

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

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

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

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

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

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

33
34 *(f) Where practicable the electrical cable collector system shall be installed underground,*
35 *at a minimum depth of 3 feet; elsewhere the cable collector system shall be installed to*
36 *prevent adverse impacts on agriculture operations.*

¹⁶³ In the draft proposed order, recommended Land Use Condition 17 stated, "The certificate holder shall install smooth turbine tower structures and turbine nacelles that lack perching or nesting opportunities for birds." In the proposed order, the department recommended the Council adopt administrative amendments to the condition specifying that the condition applies during construction of the proposed facility.

¹⁶⁴ In the draft proposed order, recommended Land Use Condition 18 stated, "The certificate shall install gates and no trespassing signs at all private access roads established or improved for the purpose of facility construction and operation." In the proposed order, the department recommended the Council adopt administrative amendments to the condition specifying that the condition applies prior to construction of the proposed facility.

1
2 The applicant represented that the electrical collector system lines would be installed
3 underground to the extent practicable. In agricultural fields, the minimum depth would be
4 three feet to ensure that the lines would not interfere with or be susceptible to damage from
5 agricultural operations. In other areas the lines would be established as deep as practicable and
6 would be designed and constructed to comply with NESC standards. Underground lines may be
7 direct buried at specified depths or in conduit to comply with NESC standards. On the record of
8 the June 6, 2016 public hearing, D. Richards requested that underground collector lines be
9 placed in conduit to ensure adequate protection from wildlife impacts; however, as noted,
10 placement of underground lines in conduit is not a regulatory requirement and therefore the
11 Council would not have the authority to impose such a restriction.¹⁶⁵ In order to ensure
12 compliance with the Umatilla County standard and based upon the applicant's representation,
13 the Council adopts the following condition, as amended in the proposed order to clarify timing
14 of implementation:¹⁶⁶

15
16 **Land Use Condition 19:** During construction, the certificate holder shall install the
17 electrical cable collector system underground, where practicable. In agricultural areas,
18 the collector system lines must be installed at a depth of 3 feet or deeper as necessary
19 to prevent adverse impacts on agriculture operations. In all other areas, the collector
20 system lines must be installed a minimum of 3 feet where practicable.

21
22 Based on the evaluation provided above, and subject to compliance with the condition, the
23 Council finds that the facility would satisfy this Umatilla County standard.

24
25 *(g) Required permanent maintenance/operations buildings shall be located off site in*
26 *one of Umatilla County's appropriately zoned areas, except that such a building may be*
27 *constructed on site if:*

28
29 *(1) The building is designed and constructed generally consistent with the character of*
30 *similar buildings used by commercial farmers or ranchers, and*

31
32 *(2) The building will be removed or converted to farm use upon decommissioning of the*
33 *Wind Power Generation Facility consistent with the provisions of §152.616 (HHH) (7).*

34
35 The applicant would construct one O&M building within the site boundary in Umatilla County.
36 As described by the applicant, the O&M building would be a one-story building of about 6,000-

¹⁶⁵ WRWAPPDoc97 DPO Public Comment_D. Richards 2016-06-06

¹⁶⁶ In the draft proposed order, recommended Land Use Condition 19 stated, "The certificate holder shall install the electrical cable collector system underground where practicable. In agricultural areas, the collector system lines must be installed at a depth of 3 feet or deeper as necessary to prevent adverse impacts on agriculture operations. In all other areas, the collector system lines must be installed a minimum of 3 feet where practicable." In the proposed order, the department recommended the Council adopt administrative amendments to the condition specifying that the condition applies during construction of the proposed facility.

1 9,000 square feet with adjacent parking, similar in appearance and construction to agricultural
2 buildings commonly found in Umatilla County. To ensure compliance with the Umatilla county
3 standard, the Council adopts the following condition, as amended:¹⁶⁷

4
5 **Land Use Condition 20:** During design and construction, the certificate holder must
6 ensure that the O&M building in Umatilla County is consistent with the character of
7 similar agricultural buildings used by commercial farmers or ranchers in Umatilla
8 County.

9
10 The applicant indicated that upon decommissioning of the facility, the O&M building would
11 either be conveyed to the underlying landowner for farm use or removed in accordance with
12 the approved decommissioning plan required by Retirement and Financial Assurance Condition
13 3. The county would be protected against decommissioning costs pursuant to the bond
14 required by Retirement and Financial Assurance Condition 4.

15
16 Based on the evaluation provided above, and subject to compliance with Land Use Condition 2
17 and identified conditions in other sections, the Council finds that the facility would satisfy this
18 Umatilla County standard.

19
20 *(h) A Wind Power Generation Facility shall comply with the Specific Safety Standards for*
21 *Wind Energy Facilities delineated in OAR 345 024 0010 (as adopted at time of*
22 *application).*

23
24 The applicant addressed OAR 345-024-0010, the Public Health and Safety Standards for Wind
25 Energy Facilities, in Exhibit DD. Compliance with the Council standard is discussed in Section
26 IV.O, *Public Health and Safety Standards for Wind Facilities* of this final order. The Council finds
27 that subject to compliance with the conditions adopted in that section, the facility would
28 comply with the specific safety standards set forth at OAR 345-024-0010.

29
30 Based upon the evaluation and conditions provided in Section IV.O, *Public Health and Safety*
31 *Standards for Wind Facilities* of this final order, the Council finds that the facility would satisfy
32 the Umatilla County standard.

33
34 *(i) A Covenant Not to Sue with regard to generally accepted farming practices shall be*
35 *recorded with the County. Generally accepted farming practices shall be consistent with*
36 *the definition of Farming Practices under ORS 30.930. The Wind Power Generation*
37 *Facility owner/operator shall covenant not to sue owners, operators, contractors,*

¹⁶⁷ In the draft proposed order, recommend Land Use Condition 20 stated, "The certificate holder must design and construct the O&M building in Umatilla County so that it is consistent with the character of similar agricultural buildings used by commercial farmers or ranchers in Umatilla County." In the proposed order, the department recommended the Council adopt administrative amendments to the condition specifying that the condition applies during design and construction of the proposed facility.

1 *employees, or invitees of property zoned for farm use for generally accepted farming*
2 *practices.*

3
4 The applicant indicated that it would record a Covenant Not to Sue against its leasehold
5 interests prior to construction of the proposed facility. Umatilla County indicated that the
6 covenant not to sue should not be limited to the lands within the site boundary.¹⁶⁸ The
7 department agreed with the county comment, and the Council adopts the following condition
8 to ensure compliance with the Umatilla County standard:

9
10 **Land Use Condition 21:** Before beginning construction, the certificate holder shall
11 record in the real property records of Umatilla County a Covenant Not to Sue with
12 regard to generally accepted farming practices on adjacent farmland.

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

16
17 *(j) Roads.*

18
19 *(1) County Roads. A Road Use Agreement with Umatilla County regarding the impacts*
20 *and mitigation on county roads shall be required as a condition of approval.*

21
22 This county standard requires a condition for a Road Use Agreement with Umatilla County prior
23 to beginning construction. The applicant indicated that under the terms of the required
24 agreement, it would leave all public roads utilized during facility construction in as good or
25 better condition as exists at the time construction commences. In order to comply with this
26 Umatilla County standard, the Council adopts Public Services Conditions 7 and 8.

27
28 Based on the evaluation provided above, and subject to compliance with the identified
29 conditions, the Council finds that the facility would satisfy the Umatilla County the standard.

30
31 *(2) Project Roads. Layout and design of the project roads shall use best management*
32 *practices in consultation with the Soil Water Conservation District. The project road*
33 *design shall be reviewed and certified by a civil engineer. Prior to road construction the*
34 *applicant shall contact the State Department of Environmental Quality and if necessary,*
35 *obtain a storm water permit (National Pollution Discharge Elimination System).*

36
37 The applicant indicated that it would implement best management practices for storm water
38 management as described in ASC Exhibit I, and as would be required under the terms of the
39 NPDES permit and the associated ESCP (see Section IV.D, *Soil Protection* of this final order and
40 Soil Protection Condition 1). ASC Exhibit E, Attachment E-1 provides a copy of DEQ's letter to
41 the department confirming receipt of the applicant's NPDES 1200-C permit application. Further,

¹⁶⁸ WRWAPPDoc17, SAG Comment UBOC, 02-12-2015.

1 the applicant indicated that all facility roads would be designed and reviewed by a certified civil
2 engineer. To ensure compliance with the county standard, the Council adopts the following
3 condition, as amended in the proposed order to clarify timing of implementation:¹⁶⁹

4
5 **Land Use Condition 22:** During facility design and construction of new access roads and
6 road improvements, the certificate holder shall implement best management practices
7 after consultation with the Umatilla County Soil Water Conservation district. The new
8 and improved road designs must be reviewed and certified by a civil engineer.

9
10 Based on the evaluation provided above, and subject to compliance with this condition, the
11 Council finds that the facility would satisfy this Umatilla County standard.

12
13 *(k) Demonstrate compliance with the standards found in OAR 660-033-0130 (37).*

14
15 The wind power generation facility provisions at OAR 660-033-0130(37) apply in both Morrow
16 and Umatilla counties. Therefore, the applicant submitted a combined analysis for the entire
17 facility in ASC Exhibit K Attachment K-4. The OAR 660-033-0130(37) evaluation for the facility as
18 a whole is provided in Section IV.E.3 below.

19
20 *(l) Submit a plan for dismantling of uncompleted construction and/or decommissioning*
21 *and/or re-powering of the Wind Power Generation Facility as described in §152.616*
22 *(HHH) (7).*

23
24 According to the applicant, the facility is designed to have a useful life of approximately 50
25 years, at which time it may be repowered or decommissioned. Pursuant to Retirement and
26 Financial Assurance Condition 2, the certificate holder must retire the facility in accordance
27 with a retirement plan approved by the Council if the facility holder permanently ceases
28 construction or operation of the facility. To address this county requirement, the Council
29 adopts the following condition:

30
31 **Land Use Condition 23:** Before beginning decommissioning activities, the certificate
32 holder must provide a copy of the final retirement plan to Morrow County and Umatilla
33 County.

34
35 Based on the evaluation provided above, and subject to compliance with the identified
36 conditions, the Councils find that the facility would satisfy this Umatilla County standard.

37

¹⁶⁹ In the draft proposed order, recommended Land Use Condition 22 stated, "The certificate shall design and construct new access roads and road improvements using best management practices after consultation with the Umatilla County Soil Water Conservation district. The new and improved road designs must be reviewed and certified by a civil engineer." In the proposed order, the department recommends the Council adopt administrative amendments to the condition specifying that the condition applies during facility design and construction of new access roads and road improvements.

1 *(m) A surety bond shall be established to cover the cost of dismantling uncompleted*
2 *construction and/or decommissioning of the Wind Power Generation Facility, and site*
3 *rehabilitation pursuant to §152.616 (HHH) (7) and (8). The intent of this requirement is*
4 *to guarantee performance (not just provide financial insurance) to protect the public*
5 *interest and the county budget from unanticipated, unwarranted burden to*
6 *decommission wind projects. For projects being sited by the State of Oregon's Energy*
7 *Facility Siting Council (EFSC), the bond or letter of credit required by EFSC will be deemed*
8 *to meet this requirement.*

9
10 The applicant described the necessary bond or letter of credit to cover the cost of site
11 rehabilitation in the event of decommissioning or dismantling of uncompleted construction in
12 ASC Exhibit W, and the Council's requirement is addressed in Section IV.G, *Retirement and*
13 *Financial Assurance* of this final order. Retirement and Financial Assurance Condition 4 requires
14 the applicant to submit to the State of Oregon, through the Council, a bond or letter of credit in
15 an amount satisfactory to restore the site to a useful, non-hazardous condition. That condition
16 would satisfy the Umatilla County requirement.

17
18 *(n) The actual latitude and longitude location or Stateplane NAD 83(91) (suitable for GPS*
19 *mapping) coordinates of each turbine tower, connecting lines, O & M building,*
20 *substation, project roads and transmission lines, shall be provided to Umatilla County on*
21 *or before starting electrical production.*

22
23 The applicant stated that it would provide actual locational data to Umatilla County and area
24 emergency service providers prior to beginning electrical production. Based upon that
25 representation and to ensure compliance with the county's requirement, the Council adopts
26 the following condition:

27
28 **Land Use Condition 24:** Before beginning electrical production, the certificate hold shall
29 provide the location of each turbine tower, electrical collecting lines, the O&M building,
30 the substation, project access roads, and portion of the intraconnection transmission
31 line located in Umatilla County to the department and Umatilla County in a format
32 suitable for GPS mapping.

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

36
37 *(o) An Operating and Facility Maintenance Plan shall be submitted and subject to County*
38 *review and approval.*

39
40 The applicant represented that it would provide an Operating and Facility Maintenance Plan for
41 review and approval prior to beginning electrical production. Based upon the representation
42 made by the applicant and to comply with the Umatilla County requirement, the Council adopts

1 the following condition, as amended in the proposed order with minor administrative
2 changes:¹⁷⁰

3
4 **Land Use Condition 25:** Before beginning electrical production, the certificate holder
5 shall prepare an Operating and Facility Maintenance Plan (Plan) and submit the Plan to
6 the department for approval in consultation with Umatilla and Morrow Counties.

7
8 Based on the evaluation provided above, and subject to compliance with this condition, the
9 Council finds that the facility would satisfy this Umatilla County standard.

10
11 *(p) A summary of as built changes to the original plan, if any, shall be provided by the*
12 *Wind Power Generation Facility owner/operator 90 days of starting electrical*
13 *production.*

14
15 The applicant stated that it would comply with this requirement by providing a summary of any
16 as-built changes to the original plan to Umatilla County within 90 days of starting electrical
17 production. Based upon the representation and in order to ensure compliance with the county
18 requirement, the Council adopts the following condition:

19
20 **Land Use Condition 26:** Within 90 days of the commencement of electrical service from
21 Wheatridge East, the certificate holder shall provide a summary of as-built changes to
22 the department and Umatilla County.

23
24 Based on the evaluation provided above, and subject to compliance with this condition, the
25 Council finds that the facility would satisfy this Umatilla County standard.

26
27 *(q) Submit a Socioeconomic Assessment of the Wind Power Generation Facility.*

28
29 The applicant submitted what they described as an evaluation of the expected socioeconomic
30 impacts of the proposed facility as part of ASC Exhibit U. Those impacts are discussed in the
31 context of the Council's Public Service Standard in Section IV.M of this final order. The applicant
32 also addresses the long-term economic and social consequences of the proposed facility in ASC
33 Exhibit K Exhibit K-4, which is addressed in Section IV.E.3 below in findings regarding OAR 660-
34 033-0130(37).

35
36 Based on the evaluation provided above, the Council finds that the facility would satisfy this
37 Umatilla County standard.

38
39 **152.616(HHH) (7) Dismantling/Decommissioning.**

¹⁷⁰ In the draft proposed order, recommended Land Use Condition 25 stated, "Before beginning electrical production, the certificate holder shall prepare an Operating and Facility Maintenance Plan and submit the Plan to the department for approval in consultation with Umatilla and Morrow Counties." In the proposed order, the department recommended the Council adopt administrative amendments to the condition, specifying that the Plan is the Operating and Facility Maintenance Plan (Plan).

1
2 *A plan for dismantling and/or decommissioning that provides for completion of*
3 *dismantling or decommissioning of the Wind Power Generation Facility without*
4 *significant delay and protects public health, safety and the environment in compliance*
5 *with the restoration requirements of this section.*

6
7 (a) *A description of actions the Wind Power Generation Facility owner/operator*
8 *proposes to take to restore the site to a useful, non-hazardous condition,*
9 *including options for post dismantle or decommission land use, information on*
10 *how impacts on fish, wildlife, avian populations and the environment would be*
11 *minimized during the dismantling or decommissioning process, and measures to*
12 *protect the public against risk or danger resulting from post decommissioning*
13 *site conditions in compliance with the requirements of this section.*

14
15 (b) *A current detailed cost estimate, a comparison of that estimate with present*
16 *funds, the bond for dismantling or decommissioning, and a plan for the*
17 *availability of adequate funds for completion of dismantling or decommissioning.*
18 *The cost estimate will be reviewed and be updated by the Wind Power*
19 *Generation Facility owner/operator on a 3 year basis, unless material changes*
20 *have been made in the overall Wind Power Generation Facility that would*
21 *materially increase or decrease these costs. If so, the report must be revised*
22 *within 120 days of completion of such changes.*

23
24 (c) *Restoration of the site shall consist of the following:*

25
26 (1) *Dismantle turbines, towers, pad mounted transformers, meteorological*
27 *towers and related aboveground [sic] equipment. All concrete turbine*
28 *pads shall be removed to a depth of at least three feet below the surface*
29 *grade.*

30
31 (2) *The underground collection and communication cables need not be*
32 *removed if at a depth of three feet or greater. These cables at a depth of*
33 *three feet or greater can be abandoned in place if they are deemed not a*
34 *hazard or interfering with agricultural use or other resource uses of the*
35 *land.*

36
37 (3) *Gravel shall be removed from areas surrounding turbine pads.*

38
39 (4) *Private access road areas shall be restored by removing gravel and*
40 *restoring the surface grade and soil, unless the landowner directs*
41 *otherwise.*

42
43 (5) *After removal of the structures and roads, the area shall be graded as*
44 *close as is reasonably possible to its original contours and the soils shall*

1 *be restored to a condition compatible with farm uses or consistent with*
2 *other resource uses. Re vegetation shall include planting by Wind Power*
3 *Generation Facility owner/operator of native plant seed mixes, planting*
4 *by Wind Power Generation Facility owner/operator of plant species suited*
5 *to the area, or planting by landowner of agricultural crops, as*
6 *appropriate, and shall be consistent with the weed control plan approved*
7 *by Umatilla County.*

8
9 (6) *Roads, cleared pads, fences, gates, and improvements may be left in*
10 *place if a letter from the land owner is submitted to Umatilla County*
11 *indicating said land owner will be responsible for, and will maintain said*
12 *roads and/or facilities for farm or other purposes as permitted under*
13 *applicable zoning.*

14
15 The applicant indicated that the facility is designed to have a useful life of approximately 50
16 years. As discussed above and in the Retirement and Financial Assurance Section (IV.G),
17 pursuant to Council provisions, any certificate holder must return a site to a useful, non-
18 hazardous condition when the facility permanently ceases operations. Retirement and
19 Financial Assurance Condition 2 requires the applicant to submit a retirement plan for
20 Council approval and requires compliance with the plan. As indicated in Retirement and
21 Financial Assurance Condition 2, final retirement plans must comply with OAR 345-027-0110.
22 Pursuant to OAR 345-027-0110(5), final retirement plans must provide for completion of
23 retirement without significant delay in a way that protects public health, safety and the
24 environment. The final plan must also provide a description of the actions the certificate
25 holder proposes to take to restore the site to a useful, non-hazardous condition, including
26 information on how impacts to fish, wildlife and the environment would be minimized during
27 the retirement process. The public and the reviewing agencies are provided an opportunity
28 to comment on the final plan. The Retirement and Financial Assurance Condition 2 and the
29 requirements of OAR 345-027-0110 are consistent with UCDO 152.616(HHH)(7).

30
31 UCDO 152.616(HHH)(7) contains minimum county requirements for site restoration. The
32 restoration required by the county ordinance is consistent with the restoration activities the
33 applicant identified in ASC Exhibit W. In order to ensure that the final retirement plan
34 includes the minimum restoration requirements contained in UCDO 152.616(HHH)(7)(c), the
35 Council adopts the following condition, as amended in the proposed order to clarify timing of
36 implementation:¹⁷¹

37
38 **Land Use Condition 27:** Prior to facility retirement, the certificate holder must include
39 the following minimum restoration activities in the proposed final retirement plan it
40 submits to the Council pursuant to OAR 345-027-0110 or its equivalent:

¹⁷¹ In the proposed order, the department recommends the Council adopt administrative amendments to recommended Land Use Condition 27 specifying that the condition applies prior to facility retirement.

1. Dismantle turbines, towers, pad mounted transformers, meteorological towers and related aboveground equipment, and remove concrete pads to a depth of at least three feet below the surface grade.
2. Remove underground collection and communication cables that are buried less than three feet in depth and are deemed by Council to be a hazard or a source of interference with surface resource uses.
3. Remove gravel from areas surrounding turbine pads.
4. Remove and restore private access roads unless the landowners directs otherwise.
5. Following removal of facility components, grade disturbed areas as close as reasonably possible to the original contours and restore soils to a condition compatible with farm uses or other resources uses.
6. Revegetate disturbed areas in consultation with the land owner and in a manner consistent with the final Revegetation Plan referenced in Fish and Wildlife Condition 11.
7. If the landowner wishes to retain certain facilities, provide a letter from the land owner that identifies the roads, cleared pads, fences, gates and other improvements to be retained and a commitment from the land owner to maintain the identified facilities for farm or other purposes permitted under the applicable zone.

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

152.616(HHH)(8) Decommissioning Fund.

The Wind Power Generation Facility owner/operator shall submit to Umatilla County a bond acceptable to the County, in the amount of the decommissioning fund naming Umatilla County beneficiary or payee. [Detailed list of bond conditions omitted for brevity.]

As discussed above and in findings addressing the Retirement and Financial Assurance standard, Section IV.G, pursuant to Council provisions, any certificate holder must return a site to a useful, non-hazardous condition when the facility permanently ceases operations. The Retirement and Financial Assurance Condition 4 requires the certificate holder to submit to the Council before beginning construction, a bond or letter of credit in a form and amount satisfactory to restore the site to a useful nonhazardous condition upon retirement of the facility. Retirement and Financial Assurance Condition 3 allows the Council to draw on the bond or letter of credit to restore the site to a useful, nonhazardous condition in the event the certificate holder does not comply with its retirement and decommissioning obligations.

As provided at UCDO 152.616(HHH)(7)(m), the bond or letter of credit required by the Council for an energy facility under Council jurisdiction would satisfy the county's bond

1 requirement.

2
3 Based on the evaluation provided above, and subject to compliance with the identified
4 conditions, the Council finds that the facility would satisfy the Umatilla County requirement.

5
6 *152.616(HHH)(9) Annual Reporting.*

7
8 *Within 120 days after the end of each calendar year the Wind Power*
9 *Generation Facility owner/operator shall provide Umatilla County a written and*
10 *oral annual report including the following information: [Detailed list of report*
11 *contents omitted for brevity.]*

12
13 UCDO 152.616(HHH)(9) states that “[f]or Wind Power Generation Facilities under EFSC
14 jurisdiction and for which an annual report is required, the annual report to EFSC satisfies
15 this requirement.” Pursuant to OAR 345-026-0080, an energy facility certificate holder must
16 submit a semiannual construction progress report to the department during construction
17 and an annual report once construction is complete. As provided, this annual reporting
18 requirement satisfies UCDO 152.616(HHH)(9).

19
20 However, to ensure that the County is provided the information contained in the annual
21 reports, the Council adopts the following condition as amended in the proposed order to
22 clarify timing of implementation:¹⁷²

23
24 **Land Use Condition 28:** During construction and operation of the facility, the
25 certificate holder shall deliver a copy of the annual report required under OAR 345-
26 026-0080 to the Umatilla County Planning Commission on an annual basis.

27
28 *152.616(HHH)(10) Permit Amendments.*

29 *The Wind Power Generation Facility requirements shall be facility specific, but can*
30 *be amended as long as the Wind Power Generation Facility does not exceed the*
31 *boundaries of the Umatilla County conditional use permit where the original Wind*
32 *Power Generation Facility was constructed. ... An amendment to a Site Certificate*
33 *issued by EFSC will be governed by the rules for amendments established by [EFSC].*

34
35 As provided in UCDO 152.616(HHH)(10), an amendment to a site certificate issued by the
36 Council would be governed by the Council’s amendment rules. Because the Council would be
37 issuing the site certificate for the facility, the UCDO permit amendment provisions are satisfied.
38 Umatilla County provided a comment stating that an amendment to the site certificate would
39 require an amendment to the county conditional use permit and a new or revised zoning

¹⁷² In the proposed order, the department recommended the Council adopt administrative amendments to recommended Land Use Condition 28 specifying that the condition applies during construction and operation of the proposed facility.

1 permit.¹⁷³ It may be the case that the nature of an amendment request would require a site
2 certificate holder to obtain an amendment to the county conditional use permit and/or a
3 zoning permit. However, the scope of the amendment request dictates whether an amendment
4 to a conditional use permit or zoning permit would be necessary.¹⁷⁴

5
6 *152.616(HHH)(11) Walla Walla Watershed.*

7
8 UCDO 152.616(HHH)(11) only applies to land within the Walla Walla sub-basin east of
9 Highway 11. Because the facility is not located in the identified area, this criterion is not
10 applicable to this ASC.

11
12 **2.2.3 UCCP Policies**

13
14 *Citizen Involvement:*

15
16 *1. Provide information to the public on planning issues and programs, and encourage*
17 *continuing citizen input to planning efforts.*

18
19 *5. Through appropriate media, encourage those County residents' participation during*
20 *both city and County deliberation proceedings.*

21
22 The identified Citizen Involvement policies are procedural and do not contain substantive
23 standards applicable to the siting of the facility. The applicant elected to have the Council make
24 the land use decision for the facility in accordance with ORS 469.504(1)(b), and therefore, the
25 Council's procedural requirements apply.

26
27 The Council's procedure for making a site certificate decision is a public process. The application
28 is a public document that has been made available on the department's website. The
29 documents issued by the department related to the ASC are also public documents, and most
30 are posted on the department's website. Additionally, the department uses direct mailing and
31 emails, newspaper publication and the department's website to inform the public about the
32 proceedings related to the proposed site certificate and the opportunity for public
33 participation. There are opportunities for public comment throughout the ASC review process,
34 and there is a hearing on the department's draft proposed order. Following issuance of a
35 proposed order, those who commented on the record of the draft proposed order have an
36 opportunity to request party status in a contested case. Finally, those who participated as

¹⁷³ WRWAPPDoc17, SAG Comment UBOC, 02-12-2015.

¹⁷⁴ Additionally, ORS 469.401(2) applies to site certificate amendments as well as original site certificates. Therefore, if a site certificate amendment required a certificate holder to obtain an amended conditional use or zoning permit, the county would be required to issue the amended permit without hearing or other proceedings and subject only to the conditions included in the amended site certificate. Therefore, the department encourages Umatilla County to participate as a SAG in any future site certificate amendment requests.

parties in a contested case have the opportunity to file exceptions with the Council on the proposed contested case order. All Council meetings are open to the public.

In this case, it appears that the Umatilla County Planning Commission held a public hearing on August 27, 2015 and accepted testimony before making recommendations to the UBOC.¹⁷⁵ The UBOC held a hearing on September 9, 2015 to review the ASC and the recommendations of the Planning Commission. It further appears that the UBOC considered public comments presented during its hearing when drafting its comments to the department and Council in the form of Order No. BCC2015-075 and the attached UBOC Special Advisory Group Findings.¹⁷⁶

Agriculture:

1. Umatilla County will protect, with Exclusive Farm Use zoning pursuant to ORS 215, lands meeting the definition of farmland in this plan and designated as Agricultural on the Comprehensive Plan Map.

Umatilla County has established an EFU zone and has implemented ordinances to protect farmland. The portion of the facility within Umatilla County would be located entirely on EFU zoned lands. The applicable EFU ordinances from the UCDO are addressed in the UCDO section above.

8. The county shall require appropriate procedures/ standards/policies be met in the Comprehensive Plan and Development Ordinance when reviewing non-farm uses for compatibility with agriculture.

The UBOC was appointed as a SAG for the proposed facility and they identified the applicable substantive criteria for reviewing the facility as a non-farm use.¹⁷⁷ UBOC has participated in the Council's ASC process as a SAG pursuant to ORS 469.504.

17. Continue to encourage timber management to occur on lower elevation seasonal grazing as permitted in the Exclusive Farm Use Zone.

The applicant indicated that there is no active timber management within the site boundary in Umatilla County. Therefore, there would be no conflict between the wind energy facility use and the County's goal to encourage timber management in appropriate areas zoned EFU.

Open Space, Scenic & Historic Areas, and Natural Areas:

¹⁷⁵ WRWAPPDoc34, SAG Comments UBOC, 09-16-15.

¹⁷⁶ While the Planning Commission and Board of Commissioners are free to hold public hearings for the purpose of informing the SAG comments to the department and Council, in order to comment on the draft proposed order and preserve an opportunity to request party status in the contested case, members of the public must provide comments directly to the department after issuance of the draft proposed order and before the close of the record on the public hearing pursuant to ORS 469.370 and OAR 345-015-0220.

¹⁷⁷ WRWNOIDoc42, Umatilla County Comment, 04-12-13.

1
2 1. (a) *The County shall maintain this resource [Open Space] by limiting development*
3 *mainly to existing built up areas.*
4

5 This policy is related to the finding that Umatilla County has a sparse rural population and is
6 predominantly open space. The wind power generation facility and associated intraconnection
7 transmission lines are conditional and allowed uses in the EFU zone. The facility must be built in
8 areas of open space with sufficient wind resources to support economic generation.

9 Nonetheless, the facility would consist of wind turbines spaced at large intervals, and
10 supporting infrastructure, much of which would be buried underground. Therefore, most of the
11 land area within the site boundary would remain open.

12
13 The site boundary is crossed by several highways, and there is an existing wind energy facility
14 immediately to the west. The applicant asserted that the facility would not significantly alter
15 the rural, sparsely developed character of the site boundary and surrounding lands, and the
16 Council agrees.

17
18 5. (a) *The County shall maintain rural agricultural lands, Development shall be of low*
19 *density to assure retention of upland game habitat,*
20

21 The applicant noted that although the site boundary for the facility encompasses a fairly large
22 geographic area, the density of developed areas due to the facility and existing land uses would
23 remain very low, and the vast majority of land within the site boundary would remain available
24 for agricultural uses. Additionally, the applicant explained that most facility impacts would
25 occur on agricultural lands such that upland game habitat, and particularly the streams,
26 wetlands and riparian areas on which game relies, would be minimally affected. The Council
27 addresses impacts on upland game habitat and associated mitigation requirements in Section
28 IV.H, *Fish and Wildlife Habitat* of this final order.

29
30 (b) *Land uses should maintain the vegetation along stream banks, fence rows, woodlots,*
31 *etc. Research ways to reduce harassment and loss of upland game by free roaming dogs*
32 *and cats.*
33

34 As explained by the applicant, existing agricultural uses on land within the site boundary would
35 be able to continue with minimal disruption once facility construction is complete. The facility
36 includes a widely spaced series of turbines with minimal supporting infrastructure, much of
37 which is located underground. The applicant did not propose significant new fencing. Therefore
38 the impact of the facility on game movement or habitat is limited. The applicant indicated that
39 sensitive habitat and vegetated areas along stream banks, fence rows and woodlots would not
40 be permanently disturbed by the facility. Impacts to wildlife habitat and mitigation for
41 unavoidable impacts are discussed in greater detail in Section IV.H, *Fish and Wildlife Habitat* of
42 this final order. Finally, there appear to be no characteristics of the facility that would attract or
43 exacerbate the problem of free roaming dogs and cats.
44

1 6. (a) *Developments or land uses that require drainage, channelization, filling or*
2 *excessive removal of riparian vegetation in sensitive waterfowl areas should be*
3 *identified.*

4
5 The applicant identified the habitat within the site boundary in ASC Exhibit P and habitat
6 impacts are evaluated in Section IV.H, *Fish and Wildlife Habitat* of this final order. The applicant
7 represents that the facility would not require drainage, channelization, filling or excessive
8 removal of riparian vegetation in sensitive waterfowl areas.

9
10 8. (a) *Setbacks shall be established to protect significant and other wetlands.*

11
12 The applicant indicated that the facility was designed to avoid impacts to wetlands, and
13 maintains sufficient setbacks from wetland edges to prevent indirect impacts to nearby
14 wetlands. The applicant addressed wetland impacts in ASC Exhibit J and compliance with the
15 wetland removal-fill laws is address in Section IV.S, *Removal-Fill Law* of this final order.

16
17 9. (a) *The County shall encourage land use practices which protect and enhance*
18 *significant wetlands.*

19
20 It does not appear that the site boundary includes any wetlands identified in the
21 comprehensive plan as “significant.” Furthermore, the applicant represented that the facility
22 would not impact any wetlands in Umatilla County.

23
24 10. (c) *Compatible land use shall maintain the riparian vegetation along streams in the*
25 *floodplain. Stream bank vegetation shall be maintained along streams outside of the*
26 *floodplain by utilizing appropriate setbacks.*

27
28 The applicant represented that it designed the facility to avoid impacts to riparian or other
29 stream bank vegetation, and further represents that it would satisfy all UCDO setback
30 requirements.

31
32 (d) *Development or land use that requires channelization, excessive removal of*
33 *streamside vegetation, alteration of stream banks and filling into stream channels shall*
34 *be restricted in order to maintain streams integrity.*

35
36 Once again, the applicant indicated that it has designed the facility to avoid nearly all impacts to
37 streams, and that the facility would impact only ephemeral streams where access roads must
38 cross. The applicant committed to taking all appropriate measures to maintain stream integrity,
39 and indicated that the streams would be channelized only to the extent necessary to flow
40 through a culvert under a road. The applicant indicated that streamside vegetation removal
41 would be avoided to the extent practicable, and the applicant would be required to restore
42 temporarily disturbed areas to approximately original contours and reseed with native species
43 as required by the Revegetation Plan referenced in Fish and Wildlife Condition 11.

1 (e) New roads, bridges and access rights-of-way shall be designed to avoid channel
2 capacity, and minimize removal of shoreline vegetation.

3
4 As discussed above, facility access roads would cross ephemeral streams. However, the
5 applicant indicated that channelization would be limited and removal of shoreline vegetation
6 would be avoided to the extent practicable. Further, the applicant indicated that any new or
7 improved roads would be sited in consultation with the affected landowner to minimize
8 removal of shoreline vegetation. Finally, the applicant indicated new roads would not adversely
9 affect channel capacity.

10
11 20. (a) Developments of potentially high visual impacts shall address and mitigate
12 adverse visual effects in their permit application, as outlined in the Development
13 Ordinance standards.

14
15 (b) It is the position of the County that the Comprehensive Plan designations and zoning
16 already limit scenic and aesthetic conflicts by limiting land uses or by mitigating conflicts
17 through ordinance criteria. However, to address any specific, potential conflicts, the
18 County shall insure special consideration of the following when reviewing a proposed
19 change of land use:

20
21 (1) Maintaining natural vegetation whenever possible.

22
23 (2) Landscaping areas where vegetation is removed and erosion might result.

24
25 (3) Screening unsightly land uses, preferably with natural vegetation or
26 landscaping.

27
28 (4) Limiting rights-of-way widths and numbers of roads intersecting scenic
29 roadways to the minimum needed to safely and adequately serve the uses to
30 which they connect.

31
32 (5) Limiting signs in size and design so as not to distract from the attractiveness
33 of the area.

34
35 (6) Siting Developments to be compatible with surrounding area developments
36 and recognizing the natural characteristics or the location.

37
38 (7) Limiting excavation and filling only to those areas where alteration of the
39 natural terrain is necessary and re-vegetating such areas as soon as possible.

40
41 (8) Protection vistas and other views which are important to be recognized
42 because of their limited number and importance to the visual attractiveness of
43 the area.

1 Because of the size and prominence of the turbines, wind energy facilities are developments of
2 potentially high visual impact. However, wind energy projects are a conditional use in the
3 Umatilla County EFU zone. As called for by this UCCP policy, aesthetic and scenic conflicts are
4 already largely mitigated through the substantive criteria applicable to the facility and
5 conditions proposed through the Council's Scenic Resources Standard. UCDO
6 152.616(HHH)(6)(b) requires reasonable efforts to blend the turbines with the surrounding
7 natural area. As discussed under that criterion, the applicant addresses scenic impacts in ASC
8 Exhibit R. Section IV.J, *Scenic Resource* of this final order includes conditions that require that
9 the applicant take reasonable actions to minimize the visual impacts of the turbines on the
10 landscape generally. Specifically, Scenic Resources Condition 2 requires the applicant to paint or
11 otherwise finish turbine structures in grey, white, or off-white, with a low reflectivity coating to
12 minimize reflection and contrast with the sky. The condition also requires the applicant to
13 minimize vegetative clearing and restore and revegetate temporary impacts as soon as
14 practicable after construction. This retention and replacement of natural vegetation
15 surrounding the turbines would further minimize the visual impact of the turbines.

16
17 Additionally, there are no Umatilla County identified or designated scenic views or resources in
18 the vicinity of the facility. Nonetheless, the facility would incorporate many of the design
19 guidance elements enumerated in this policy, minimizing aesthetic impacts as well as other
20 impact types. For example, vegetation removal would be largely limited to agricultural crops,
21 with very little impacts to native vegetation and no impacts to trees. As provided above,
22 disturbed areas would be revegetated as soon as practicable following construction to restore
23 the visual quality of the land and to prevent erosion. The applicant indicated that access roads
24 have been reduced to the minimum length necessary for facility construction and operation,
25 and the roads would be narrowed following construction to a minimum width needed for
26 typical maintenance vehicles. Access roads do not intersect with designated scenic roadways.
27 The applicant only proposed small identifying markers and "no trespassing" signs at the base of
28 each turbine, safety signage within each collector substation, and a small identifying sign at the
29 O&M building. The applicant did not propose commercial signage. As required by Land Use
30 Condition 19, electrical collector lines would be located underground to the extent practicable,
31 and the intraconnection corridor appears to minimize the visibility of the intraconnection line
32 from major public roads. The applicant indicated that access road routes and turbine locations
33 were selected to limit the need for cut and fill, and to follow existing terrain as much as
34 possible. Finally, the turbines represent a nontraditional structure on the landscape that cannot
35 reasonably be screened. However, pursuant to Land Use Condition 20, the O&M building to be
36 located within Umatilla County would be similar in appearance to other existing agricultural
37 structures in the area, thereby limiting the visual impacts of that structure.

38
39 *22. The County shall cooperate with state agencies and other historical organizations to*
40 *preserve historic buildings and sites, cultural areas, and archeological sites and artifacts.*

41
42 *23. (a) Umatilla County shall encourage and cooperate in developing a detailed county-*
43 *wide historic site inventory.*
44

1 *24. (a) Umatilla County shall protect significant historical and cultural sites from land use*
2 *activities which diminish their value as historical resources.*

3
4 *26. The County shall cooperate with the Tribe, Oregon State Historic Preservation Office,*
5 *and others involved in concern identifying and protecting Indian cultural areas and*
6 *archeological sites.*

7
8 The applicant addresses the potential impacts of the facility on historic, cultural and
9 archeological resources in ASC Exhibit S. The Council evaluates those impacts and adopts
10 conditions of approval necessary to satisfy the Council's Historic, Cultural and Archeological
11 Resources Standard in Section IV.K, *Historic, Cultural and Archeological Resources* of this final
12 order. Pursuant to OAR 345-001-0010, the State Historic Preservation Office (SHPO) is a
13 reviewing agency for purposes of the Council's ASC process. SHPO received a copy of the ASC
14 and the applicant's historic and cultural resource survey.

15
16 There are no historic buildings located within the site boundary in Umatilla County. The
17 applicant represented that it has avoided all other known historic, cultural and archaeological
18 resources through modifications to the facility layout. The Legislative Commission on Indian
19 Services identified the CTUIR as a reviewing tribal government, and the applicant contracted
20 with the CTUIR to survey the area for cultural and archaeological resources. As noted above,
21 the applicant provided a full report of their findings to CTUIR and SHPO. SHPO submitted a
22 comment letter to the department indicating that it concurred with the eligibility
23 recommendations provided in the applicant's report and that the proposed facility, with
24 implementation of appropriate avoidance measures, would not likely have an effect on any
25 significant archeological objects or sites.¹⁷⁸ The Council adopts Historic, Cultural and
26 Archeological Resources Conditions 1 through 4 to ensure that the identified resources are
27 protected during facility construction.

28
29 In the event that previously undiscovered sites or artifacts are found during construction,
30 Historic, Cultural and Archeological Resources Condition 5 requires the applicant to cease all
31 ground-disturbing activities and notify SHPO. The condition also requires the applicant to
32 consult with SHPO and interested tribes, including CTUIR, to determine appropriate avoidance
33 and mitigation measures.

34
35 *37. The County shall ensure compatible interim uses provided through Development*
36 *Ordinance standards, and where applicable consider agriculturally designated land as*
37 *open space for appropriate and eventual resource or energy facilities use.*

38
39 The UCDO section above addresses applicable standards for a wind energy facility in the EFU
40 zone. The county, however, did not identify specific ordinances that ensure compatible interim
41 uses of lands set aside for an identified use. Nonetheless, the facility is consistent with this

¹⁷⁸ WRWAPPDoc16, Agency Comment SHPO Concurrence Letter, 08-18-2014. In a comment letter received from SHPO, concurrence with the results of field surveys was provided.

1 policy because agricultural lands have been identified as appropriate areas for wind energy
2 facility use provided the conditional use requirements are satisfied.

3
4 *38. (a) The County shall encourage mapping of future agencies [sic] sites, ensure their*
5 *protection from conflicting adjacent land uses, and required reclamation plans.*
6

7 The applicant indicated that the facility would not impact any known aggregate sites, and no
8 landowners have disclosed the existence of any such sites or prospective sites within the site
9 boundary or surrounding areas. The applicant stated that the facility would not prevent the
10 future development of aggregate or mineral extraction sites, and would not represent a
11 conflicting land use that would adversely affect or be adversely affected by mining activities in
12 the vicinity. The Council agrees.

13
14 *(b) Aggregate and mineral exploration, extraction, and reclamation shall be conducted in*
15 *conformance with the regulations of the Department of Geology and Mineral Industries.*
16

17 The applicant provided that the facility would not involve aggregate or mineral exploration,
18 extraction or reclamation, and would not impact any existing aggregate or mineral extraction
19 sites except to the extent that the applicant intends to purchase aggregate from an existing,
20 permitted mine. The county has requested that the source of the aggregate be identified by the
21 applicant.¹⁷⁹ Organizational Expertise Condition 7 requires the applicant to provide that
22 information to the county.

23
24 *(c) The County Development Ordinance shall include conditional use standards and other*
25 *provisions to limit or mitigate conflicting uses between aggregate sites and surrounding*
26 *land uses.*

27 The applicant indicated that the facility would not impact any known aggregate sites, and no
28 landowners have disclosed the existence of any such sites or prospective sites within the site
29 boundary. As discussed above, the applicant did not propose to develop an aggregate or other
30 mining site. Instead, the applicant intends to obtain aggregate from an existing permitted
31 source.

32
33 *39. (a) The County shall strictly enforce state and county development standards*
34 *pertaining to gravel extraction/processing uses through appropriate agencies; whether*
35 *new operations or expansions of existing sites.*
36

37 As discussed above, the applicant did not propose to develop a new mining site, nor expand an
38 existing mining site. Instead the applicant intends to obtain aggregate from an existing
39 permitted source. Organizational Expertise Condition 7 requires the certificate holder to
40 provide the department, Morrow County, and Umatilla County with the name and location of
41 the aggregate source and evidence of the source's county permit prior to construction.
42

¹⁷⁹ WRWAPPDoc17, SAG Comment UBOC, 02-12-2015.

1 42. (a) *Encourage development of alternative sources of energy.*

2
3 As a wind energy generation facility, the facility is considered an alternative source of energy.
4 Therefore, development of the facility is consistent with and furthers this policy.

5
6 *Air, Land, Water Quality:*

7
8 1. *Discharges from existing and future developments shall not exceed applicable*
9 *environmental standards.*

10
11 The facility would not emit air or water pollution during operation. As discussed in Section IV.D,
12 *Soil Protection* of this order and as required by Soil Protection Condition 1, the applicant is
13 required to obtain a NPDES 1200-C permit prior to construction and comply with an ESCP
14 during construction.

15
16 7. *Consider cumulative noise impacts and compatibility of future developments,*
17 *including the adoption of appropriate mitigating requirements of plan updates.*

18
19 This comprehensive plan objective provision appears to be a directive to the County in its
20 implementation of its plan. However, to the extent it is construed to be an applicable
21 substantive criterion for purposes of this application, the applicant addressed noise impacts
22 and compliance with the DEQ noise rules in ASC Exhibit X. The Council evaluates those impacts
23 and imposes conditions to comply with the DEQ noise rules in Section IV.R, *Noise Control*
24 *Regulation*, of this order. As described in that section, the applicant described the noise sources
25 for the facility and evaluates the expected noise impacts from the facility. The applicant
26 identified two different NRO mode alternatives to mitigate noise levels, and the Council
27 imposes conditions to ensure that the facility is operated in an NRO mode that ensures the
28 facility is consistent with the DEQ noise rules.

29
30 8. *Recognize that protection of existing wells has priority over development proposals*
31 *requiring additional subsurface sewage disposal.*

32
33 The applicant proposed a new on-site septic system in Umatilla County near the O&M building.
34 The system is evaluated in Section IV.M, *Public Services*, of this order. Public Services Condition
35 1 requires that during operation of the facility the certificate holder discharge sanitary
36 wastewater generated at the O&M buildings to licensed on-site septic systems in compliance
37 with State permit requirements. The Council is not aware of any existing wells in close
38 proximity to the septic system.

39
40 *Natural Hazards:*

41
42 1. *The County will endeavor, through appropriate regulations and cooperation with*
43 *applicable governmental agencies, to protect life and property from natural hazards and*
44 *disasters found to exist in Umatilla County.*

1
2 The applicant explained that the facility is in an area largely free of natural hazards.
3 Additionally, the applicant noted that the facility components would be subject to setbacks to
4 public roads and existing structures. Consistent with this policy, the setbacks are intended to
5 protect life and property even in the event of a catastrophic failure. Additionally, the applicant
6 represented that the turbines would be located away from known hazard areas, and that the
7 turbine foundations would be designed and constructed to comply with current building codes
8 so that they could withstand earthquakes. The applicant addressed seismic and other hazards
9 in ASC Exhibit H, and the Council's evaluation is provided in Section IV.C, *Structural Standard*, of
10 this order.

11
12 *4. Potentially hazardous major developments (e.g. power plants) must address*
13 *earthquake hazard possibilities.*

14
15 As provided above, the applicant addressed seismic hazards in Exhibit H, and the Council's
16 evaluation is provided in Section IV.C, *Structural Standard*, of this order. The applicant
17 explained that it did not identify any known liquefaction, subsidence or landslide risk areas
18 within the site boundary in Umatilla County. Furthermore the applicant explained that all
19 foundations would be built to applicable engineering standards for earthquake safety, and all
20 setbacks from other structures and roads would be observed, reducing the risk that proposed
21 facility improvements could collapse onto other structures or roads. Structural Standard
22 Condition 2 requires the certificate holder to design, engineer, and construct the facility in
23 accordance with the current versions of the latest International Building Code, Oregon
24 Structural Specialty Code, and building codes as adopted by the State of Oregon at the time of
25 construction. As discussed in Section IV.C, *Structural Standard* of this order, designing the
26 facility to the current versions of the latest codes would help ensure that the applicant designs,
27 engineers, and constructs the proposed facility to avoid dangers to human safety presented by
28 seismic hazards.

29
30 *Recreation Needs:*

31
32 *1. Encourage and work with local, state, federal agencies and private enterprise to*
33 *provide recreational areas and opportunities to citizens and visitors to the County.*

34
35 The facility is approved to be located on private land and there are no identified recreational
36 opportunities located within the site boundary. The applicant addressed the potential impact
37 on recreational opportunities in the analysis area in Exhibit T, and the Council evaluates those
38 potential impacts in Section IV.L, *Recreation*, of this order.

39
40 *Economy:*

41
42 *1. Encourage diversification within existing and potential resource-based industries.*
43

1 As a wind power generation facility, the facility would diversify the county's economy, which is
2 primarily agriculture based. Additionally, as explained by the applicant and supported by
3 evidence in Exhibit K, the existing agricultural uses within the site boundary and on surrounding
4 lands would not be significantly impacted by the proposed facility. Therefore, the facility would
5 create a benefit for the county's economy rather than a replacement of one economic use for
6 another.

7
8 *4. Participate in selected economic development programs and projects applicable to the*
9 *County desired growth.*

10
11 Umatilla County has not identified any economic benefit programs or projects that would apply
12 to the proposed facility. Nonetheless, the facility would generally generate economic growth
13 and jobs within Umatilla County.

14
15 *8. Evaluate economic development proposals upon the following: Will the proposal:*
16 *a. increase or decrease available supplies?*

17
18 *b. improve or degrade qualities?*

19
20 *c. balance withdrawal with recharge rates?*

21
22 *d. be a beneficial use?*

23
24 *e. have sufficient quantities available to meet needs of the proposed project and other*
25 *existing and reassembly anticipated needs?*

26
27 *f. reduce other use opportunities and if so, will the loss be compensated by other equal*
28 *opportunities?*

29
30 This policy is related to competing water uses and to a finding in the UCCP that "water
31 availabilities are a key resource to future economic growth." The applicant did not address
32 water use in response to this policy in its Exhibit K. However, the applicant did address
33 expected water use during proposed facility construction and operation in Exhibits O and U.
34 The Council has addressed facility water use issues in the Public Services (IV.M) and Water
35 Rights (IV.T) section of this order. As explained in those sections, water used during operation in
36 Umatilla County would be supplied by a new on-site well and would be limited to no more than
37 5,000 gallons per day. The applicant indicated that during construction the facility would
38 require a maximum of 78 million gallons of water under a worst-case scenario for the entire
39 proposed facility over an 18 month construction period. The applicant indicated that it would
40 obtain the water from nearby sources with existing water rights and water would be delivered
41 to the site by trucks. The applicant provided Table O-1 in Exhibit O to demonstrate that
42 sufficient quantities of water are available from existing water right holders to satisfy facility
43 construction needs. While the applicant's use of that amount of water during construction
44 would reduce the amount available to other uses, consistent with the policy, the water would

1 serve a beneficial use and the facility would take advantage of existing water rights for the
2 temporary construction period.

3
4 *Public Facilities and Services:*

5
6 *1. The county will control land development in a timely, orderly, and efficient manner by*
7 *requiring that public facilities and services be consistent with established levels of rural*
8 *needs consistent with the level of service requirements listed on pages J-27 and J-28 of*
9 *the Technical Report. Those needs are identified as follows:*

10
11 *a. Fire protection shall be provided consistent with Policies 8,9,10.*

12
13 Policies 8, 9 and 10 are directives to the County in its plan implementation, and call for the
14 formation or expansion of rural fire districts in areas designated for non-resource use; the
15 provision of adequate fire-fighting water supplies for significant new rural developments in
16 coordination with the appropriate fire district; and assistance by the County in locating satellite
17 fire stations, respectively. Therefore the policies are not directly applicable to the siting of the
18 proposed wind power generation facility.

19
20 To the extent these policies are construed as applicable substantive criteria, the applicant
21 described in Exhibit U that the facility is proposed in an area served by several fire protection
22 agencies. If the area within the site boundary is not already covered by an existing fire
23 department, the applicant indicated that it would work with one or more of the local fire
24 districts, to extend under contract their coverage to the area(s) in question. During
25 construction, and particularly during activities that present a potential fire hazard, the applicant
26 would maintain water trucks on site for rapid response in the event of a fire. The Council has
27 evaluated the impacts on fire service providers in Section IV.M, *Public Services*, of this order and
28 imposes conditions of approval to ensure that there would not be a significant impact on the
29 ability of the fire protection providers to provide fire protection services.

30
31 The development of the facility would not preclude the use of other portions of the
32 participating properties for use as the location of a future fire station.

33
34 *b. Police protection shall be provided consistent with Policy 7.*

35
36 Policy 7 is directed to the County, and calls for the allocation of county funding to maintain at
37 least the state average of 0.34 officers per 1,000 people. To the extent it is construed to be
38 applicable to this application, the applicant indicated that the proposed would have 10 to 15
39 permanent employees, some of whom may be new residents in Umatilla County. However, the
40 Council agrees that the addition of a small number of families would not significantly affect the
41 provision of police services. Additionally, the facility would contribute toward funding of police
42 services through increased taxes, allowing the County to maintain this minimum level of
43 service.

1 *c. Surface. Water Drainage-Roadside drainage shall be maintained and plans for*
2 *drainage shall be required in multiple use areas.*

3
4 The applicant proposed to improve existing farm roads and build new access roads in Umatilla
5 County. The applicant indicated that roadside drainage would be maintained on all roads
6 developed or improved for the county, including at locations where proposed facility access
7 roads intersect county roads or state highways. The specific requirements for roadside drainage
8 would be determined through the NPDES permit and the associated ESCP. Soil Protection
9 Conditions 1 and 2 require the applicant to conduct all work in compliance with a final ESCP,
10 submitted as part of the NPDES 1200-C permit, and approved by DEQ.

11
12 *d. Roads shall be maintained or improved to standards adopted by the County Road*
13 *Department which are consistent with nationally accepted standards that correlate*
14 *traffic to desired road conditions.*

15
16 Pursuant to Public Services Conditions 7 and 8, the applicant is required to enter into a Road
17 Use Agreement with Umatilla County, and the applicant is required to maintain or improve
18 roads consistent with Umatilla County standards.

19
20 *2. Require that domestic water and sewage disposal systems for rural areas be provided*
21 *and maintained at levels appropriate for rural use only. Rural services are not to be*
22 *developed to support urban uses.*

23
24 The applicant indicated that water supply and sewage disposal plans for the facility would be
25 consistent with the rural nature of the site. As discussed above and in detail in Section IV.M,
26 *Public Services* of this order, once in operation the facility would not have significant water
27 needs and water for the O&M building in Umatilla County would be provided by an exempt
28 well. Construction water would be obtained from municipal water suppliers in quantities within
29 the service capacity of those providers, and hauled to the proposed facility site. Sewage
30 disposal would be handled by portable toilets during construction, and thereafter by an onsite
31 septic system. The sources of water and sewer service during both construction and operation
32 are consistent with development in rural areas, and the facility would not require the extension
33 of urban level services to the area.

34
35 *9. Require adequate water supplies for firefighting as part of significant new*
36 *developments in rural areas in coordination with the appropriate rural fire district.*

37
38 The applicant discussed the adequacy of fire services in Exhibit U. The Council addresses fire
39 service in Section IV.M, *Public Services*, of this order, and the Council imposes Public Services
40 Condition 13, requiring development and implementation of an emergency management plan
41 that would need to be approved by the department in consultation with the appropriate local
42 fire protection districts (including the City of Heppner Volunteer Fire Department, Lone Rural
43 Fire Protection District, and Echo Rural Fire Protection District) prior to construction.

1 *19. Where feasible, all utility lines and facilities shall be located on or adjacent to*
2 *existing public or private rights-of-way so as to avoid dividing existing farm or forest*
3 *units; and transmission lines should be located within existing corridors as much as*
4 *possible.*

5
6 The applicant indicated that electrical collector lines would be placed adjacent to access roads,
7 which are routed to avoid dividing existing farm fields and generally follow existing farm access
8 tracks where feasible. Additionally, pursuant to Land Use Condition 19, collector lines must be
9 buried a minimum of three feet in agricultural areas to avoid impacts to agricultural activities.
10 The applicant also indicated that there are no existing transmission corridors in the vicinity of
11 the facility that could be used to electrically connect Wheatridge East and Wheatridge West.
12 The applicant indicated that the route was chosen to limit the visibility of the intraconnection
13 line from major public roads and minimize the lines' visual impact.

14
15 *Transportation:*

16
17 *18. The County will review right-of-way acquisitions and proposals for transmission lines*
18 *and pipelines so as to minimize adverse impacts on the community.*

19
20 The applicant does not propose to acquire right-of-way. As the applicant indicated, the
21 intraconnection transmission line was selected to minimize the visual impacts on the
22 community.

23
24 *20. Request larger industrial and commercial development proposals, consider*
25 *sponsoring carpooling programs.*

26
27 While the size of the facility is large, it would require 10 to 15 employees in a rural location.
28 Therefore, there is not a sufficient workforce to justify a formal carpooling program during
29 operation.

30
31 *Energy Conservation:*

32
33 *1. Encourage rehabilitation /weatherization of older structures and the utilization of*
34 *locally feasibly renewable energy resources through use of tax and permit incentives.*

35
36 The applicant does not propose to reuse existing structures.

37
38 Based on the evaluation provided above and in identified sections of this order, and subject to
39 compliance with the identified conditions, the Council finds that the facility would be consistent
40 with the identified UCCP policies.

Umatilla County Comments

On September 16, 2015, the UBOC issued Order No. BCC2015-075 related to the facility along with an attached document identified as the UBOC Special Advisory Group Findings (SAG Findings).¹⁸⁰ Order No. BCC2015-075 was transmitted to the department, along with the findings and the public record, through a memo from the Chair of the UBOC dated September 16, 2015.¹⁸¹ In the Order, UBOC finds: 1) the application fails to provide adequate evidence to comply with Umatilla County and State of Oregon standards, and 2) the application does not comply with relevant state law standards and should be denied. The applicant responded to Order No. BCC2015-075 and the SAG Findings through a memorandum prepared by David J. Petersen dated October 7, 2015.

The majority of the UBOC findings are premised on a belief that the applicant is required to identify and include an interconnection transmission line in its ASC, and that the site certificate cannot be approved unless an interconnection transmission line is identified and included in the ASC. The Council finds that the UBOC position related to the interconnection transmission line is not supported by either state law or the county's own code.

Council Statutes and Rules

Before addressing the specific UCDO sections identified in the SAG findings, it is necessary to consider and understand the applicable Council statutes and rules and how those state laws shape the role of a SAG in the energy facility siting process. Pursuant to ORS 469.503(4), in order to issue a site certificate, the Council must determine that "[t]he *facility* complies with the statewide planning goals adopted by the Land Conservation and Development Commission." (Emphasis added). ORS 469.504 describes the options available to the applicant and the Council for finding that a "proposed facility" complies with the statewide planning goals. In this case, the applicant has elected to have the Council, rather than the local governments, make the necessary determination of compliance with the statewide planning goals under ORS 469.504(1)(b). Under subsection (b) one option is for the Council to determine that "[t]he *facility* complies with applicable substantive criteria from the affected local government's acknowledged comprehensive plan and land use regulations that are required by the statewide planning goals and in effect on the date the application is submitted..." (Emphasis added). As indicated in the cited and quoted provisions, the Council's decision on compliance with the statewide planning goals is strictly limited to the "facility," a defined term in the Council statutes.

¹⁸⁰ WRWAPPDoc34, SAG Comment UBOC, 09-16-2015.

¹⁸¹ Order No. BCC2015-075 was the UBOC comment, on the ASC and the version of Exhibit K contained in the ASC. Umatilla County and UBOC were provided a copy of the revised January 2016 Exhibit K. UBOC did not provide a substantive response to the revised exhibit, but in a memo to the department stated that the revised Exhibit K includes much improved findings of compliance with land use, and concluded "[n]otwithstanding the comments previously submitted, Umatilla County has no comments on the Revised Exhibit K." WRWAPPDoc53, SAG Comment UBOC, 02-17-2016.

1
2 Pursuant to ORS 469.300(14) “facility” means “an energy facility together with any related or
3 supporting facilities.” Pursuant to ORS 469.300(24) “related or supporting facilities” means “any
4 structure, *proposed by the applicant*, to be constructed or substantially modified in connection
5 with the construction of an energy facility, *including associated transmission lines*, reservoirs,
6 storage facilities, intake structures, road and rail access, pipelines, barge basins, office or public
7 buildings, and commercial and industrial structures.”¹⁸² (Emphasis added).

8 The definition of related or supporting facilities specifically identifies transmission lines.
9 However, in this case, the applicant has not proposed the interconnection transmission line
10 necessary to connect the proposed facility to the grid because it would not build, own or
11 operate the interconnection transmission line. Instead, the applicant represents in Exhibit B
12 that the proposed facility would be connected to the grid via overhead 230 kV transmission
13 lines (also referred to as gen-tie lines) that would be permitted, constructed, and owned by
14 either UEC or UEC in partnership with CBEC. The applicant indicated that BPA would operate
15 the interconnection lines. The applicant included potential interconnection transmission routes
16 in the figures included in Exhibit C. However, because the interconnection transmission line is
17 not proposed by the applicant and because it would not be constructed, owned or operated by
18 the applicant, the applicant did not propose or evaluate the interconnection transmission line
19 as a related or supporting facility for purposes of the proposed facility ASC.¹⁸³ The Council finds
20 that the interconnection transmission line is not a related or supporting facility as that term is
21 defined in ORS 469.300.¹⁸⁴ Therefore, the “facility” that the Council must find complies with the
22 statewide planning goals under ORS 469.503(4) and with the applicable substantive criteria of
23 each county under the path selected by the applicant under ORS 469.504(1)(b)(A) does not
24 include an interconnection transmission line pursuant to the state statutory definition.

25
26 UBOC addressed the state statutes and rules in the SAG Findings.¹⁸⁵ While the SAG referenced
27 the definition of a related or supporting facility at ORS 469.300(14), it does not include or
28 address the definition in its entirety. Instead, the SAG Findings focus on the ASC requirements

¹⁸² “Related or supporting facilities” is also defined in the Council rules. Pursuant to OAR 345-001-0010(51), “related or supporting facilities” have the definition provided in ORS 469.300. The definition adds, “[t]he Council interprets the terms ‘proposed to be built in connection with’ as meaning that “a structure is a related or supporting facility if it would not be built but for construction or operation of the energy facility.”

¹⁸³ As noted earlier, the applicant argued that the interconnection line is not a “related or supporting facility” for purposes of this site certificate application pursuant to the definition in Council rule at OAR 345-001-0010(51) because the interconnection line may eventually be used by other facilities and therefore, the applicant contends it is not clear if the transmission line “would not be built but for construction or operation of the energy facility.” The department believes the evaluation of potential future users of the interconnection transmission line is too speculative, and therefore recommends that the Council find that the interconnection transmission line is not a related or supporting facility for purposes of this ASC under the statutory definition alone.

¹⁸⁴ The Council evaluated the interconnection line as a third party permit under the Organizational Expertise standard (Section IV.B of this final order) because the Council would ordinarily determine compliance if the applicant, rather than a third party, were seeking the necessary permits and approvals to build, own and operate the interconnection line.

¹⁸⁵ WRWAPPDoc34, SAG Comment UBOC, 09-16-2015, pp. 4-5 of the SAG Findings.

1 at OAR 345-021-010(1)(c),¹⁸⁶ which requires an applicant for a site certificate to provide a map
2 showing “the proposed locations of the energy facility site, all related or supporting facility
3 sites, and all areas that might be temporarily disturbed during construction...” As discussed
4 above, the applicant does not propose to build, own or operate the interconnection
5 transmission line, and therefore, it is not a related or supporting facility for this ASC.
6 Furthermore, the applicant did include conceptual alignments for the UEC/CBEC
7 interconnection transmission line.

8 9 Umatilla County Applicable Substantive Criteria

10
11 When UBOC identified the list of applicable substantive criteria for the proposed facility, it
12 included “UCDO 152.616(HHH) Conditional Use Criteria for commercial wind energy generation
13 facilities.” The county did not identify any specific subsection(s) of 152.616(HHH). UCDO
14 152.616(1) is titled “County Permit Procedure” and states, in part, “[t]he County procedural
15 requirements set forth in Section 152.616(HHH)(1)-(5), including the requirements for a
16 hearing, will not apply to proposed Wind Power Generation facilities for which Energy Facility
17 Siting Council is making the land use decision.” In this case, the Council is making the land use
18 decision, and therefore, under the plain language of UCDO 152.626(HHH)(1), the procedural
19 requirements of 152.616(HHH)(5) do not apply to this proposed facility.

20
21 In the SAG Findings, UBOC concluded that the proposed facility did not satisfy the following five
22 specific UCDO sections: UCDO 152.616(HHH)(5)(b) and (c)(3), 152.616(HHH)(5)(d)(1), and
23 152.616(HHH)(5)(h). The County’s position on each of the UCDO sections is addressed
24 separately below.^{187,188} The SAG Findings also commented on the mention of a variance in the
25 application and the length of time a conditional use is valid under UCDO 152.613(D).

26 27 1. UCDO 152.616(HHH)(5)(b) and (c)(3)

28
29 UCDO 152.616(HHH)(5) is titled “Application Requirements” and the introduction states, “[t]he
30 following information shall be provided as part of the application, or subject to the County’s
31 discretionary authority, be required prior to the construction or operation of the Wind Power
32 Generation Facility through a condition of approval.”¹⁸⁹

33
34 UCDO 152.616(HHH)(5)(b) and (5)(c)(3) include “a map showing the location of components”
35 and “route and plan for transmission facilities connecting the project to the grid” as items that

¹⁸⁶ The cite in the SAG Findings portion of WRWAPPDoc34, SAG Comment UBOC, 09-16-2015 is to OAR 345-021-00110(1)(c). However, that rule does not exist and the quote language is from OAR 345-021-0010(1)(c).

¹⁸⁷ The applicable UCDO sections are also addressed in the general UCDO section above.

¹⁸⁸ On the record of the public hearing, the Umatilla County Planning department, on behalf of Umatilla Board of County Commissioners, disagreed with the legal interpretation in the draft proposed order related to the grid-interconnection transmission line and the applicability of UCDO. WRWAPPDoc118 DPO SAG Comment (UBOC) 2016-06-06.

¹⁸⁹ The application requirements of UCDO 152.616(HHH)(5) are addressed in the UCDO section above.

1 must be provided in an application to the county. The SAG Findings state that the Wheatridge
2 ASC fails to comply with these requirements, and therefore, “the application fails to provide
3 adequate evidence to demonstrate compliance with UCDO 152.616(5)(d)(1).”¹⁹⁰ This position is
4 not supported by either the state law provisions discussed above or the UCDO itself. First,
5 under ORS 469.504(1)(b), the Council must determine that the proposed “facility” complies
6 with applicable substantive criteria. As discussed above, under the statutory definition the
7 facility proposed in this case does not include an interconnection transmission line as a related
8 or supporting facility. Therefore, to the extent the local code provisions require information
9 related to an interconnection transmission line, they are not properly considered applicable
10 substantive criteria for purposes of the Council’s decision on facility compliance. The local code
11 language cannot alter the Council’s statutory requirement.

12
13 Second, application requirements are generally procedural rather than substantive. Therefore,
14 pursuant to UCDO 152.616(HHH)(1), the application requirements of 152.616(HHH)(5) would
15 seemingly not be applicable to this Council jurisdictional facility. The SAG Findings state that the
16 map and route/plan application requirements are substantive criteria because they would
17 “have a meaningful impact on the decision to approve or deny the proposal.” The Council finds
18 that the facility, exclusive of the interconnection transmission line, complies with applicable
19 substantive criteria. Therefore, the Council finds that the location of the interconnection
20 transmission line would not have a meaningful impact on the Council’s decision.

21
22 Third, even if the Council considered UCDO 152.616(HHH)(5) to include applicable substantive
23 criteria for this application, the requirements either have been satisfied or would be satisfied
24 through a condition of approval. As discussed in the UCDO section above, the applicant
25 provided a map of the proposed facility components in figures included in Exhibit C. Those
26 maps include conceptual interconnection transmission line routes. A plan for transmission
27 facilities is addressed in Exhibits B and C. Finally, because the interconnection transmission line
28 routes are conceptual and because a third party would obtain necessary permits to construct
29 and operate the transmission line the Council imposed Organizational Expertise Condition 8
30 which would require the applicant to provide proof that all necessary permits have been issued
31 to the transmission line developer before beginning construction of the wind energy facility. As
32 the land use decision maker for this facility, the Council has the same authority as the county
33 would for requiring submittal of 152.616(HHH)(5) application information prior to construction
34 through a condition of approval.¹⁹¹ The Council has imposed a condition requiring that the final
35 route and plan for connecting the facility to the grid be identified, and that the applicant
36 provide evidence that the third party that is developing the interconnection transmission line
37 has obtained all necessary permits and approval to construct the transmission line.

38
39

¹⁹⁰ WRWAPPDoc34, SAG Comment UBOC, 09-16-2015, p. 2 of the SAG Findings.

¹⁹¹ The SAG Findings in WRWAPPDoc34, SAG Comment UBOC 09-16-2015, assert that SAG standards may not be deferred or otherwise conditioned to occur at a later date. However, the Findings do not acknowledge the express authority for the decision maker to do exactly that for application requirements included in 152.616(HHH)(5).

2. UCDO 152.616(HHH)(5)(d)(1)

UCDO 152.616(HHH)(5)(d)(1) provides that an application for a wind power generation facility must demonstrate compliance with UCDO 152.061,¹⁹² which contains the general conditional use standards for all uses in an EFU zone. The UCDO 152.061 standards are applicable substantive criteria, and therefore, both the applicant and the department recognized the applications requirements of UCDO 152.616(HHH)(5)(d)(1) as an applicable substantive criteria. Both UCDO 152.616(HHH)(5)(d)(1) and 152.061 are addressed in the UCDO section above.

In the SAG Findings, the County challenges the sufficiency of the applicant's evaluation of the UCDO 152.061 standards on multiple grounds. First, the SAG Findings contend that the application fails to address the impacts of the interconnection transmission line, and most of the comments are focused on the anticipated impacts of an interconnection transmission line on surrounding farm practices and farm uses. However, for the reasons identified above, the interconnection transmission line is not proposed by the applicant and therefore, is not part of the facility that the Council must directly evaluate in this ASC process under ORS 469.504 or the Council's Land Use Standard. Moreover, as discussed above, the Council has historically and consistently evaluated transmission lines associated with generation facilities as "utility facilities necessary for public service," a use category permitted on EFU land pursuant to ORS 215.283(1)(c) subject only to either ORS 215.275 or 215.274 depending on the type of line. Therefore, even if the applicant were proposing the interconnection transmission line for the proposed wind energy generation facility as part of its ASC, the conditional use standards at UCDO 152.061 and the corresponding application requirements at UCDO 152.616(HHH)(5)(d)(1) would not apply to the interconnection transmission line.

To the extent the SAG Findings relate to the sufficiency of the evidence of the wind energy generation facility impacts on surrounding farm practices, after issuance of Ordinance BCC2015-075 and the SAG Findings, the applicant submitted a more detailed identification of the surrounding farm practices and evaluation of the impacts of the proposed wind energy generation facility use on those practices in the revised Exhibit K and associated attachments. The applicant specifically identified and addressed farming practices that the SAG Findings raised concerns about, including irrigation, aerial spraying, field preparation, and equipment use. While Umatilla County did not provide substantive comments on the revised Exhibit K, it did state in a February 17, 2016 memorandum that "[t]he revised Exhibit K includes much improved findings of compliance with land use."

3. UCDO 152.616(HHH)(5)(h)

UCDO requires the development of an Emergency Management Plan for all phases of the facility. Emergency management issues are discussed substantively in Section IV.M, *Public Services* of this final order, and the Council requires as a condition of approval (Public Services

¹⁹² The conditional use standards at UCDO 152.061 are identical to the standards for approval required for conditional uses in an EFU zone statewide at ORS 215.296.

1 Condition 13) the development of an Emergency Management Plan in consultation with the
2 City of Heppner Volunteer Fire Department, Lone Rural Fire Protection District, and Echo Rural
3 Fire Protection District.

4
5 The SAG Findings, however, raise a specific concern about the fact that the letters from the fire
6 protection providers that would serve the proposed facility indicated that they do not have the
7 ability to perform either high angle or confined space rescue.¹⁹³ Based upon those
8 representations, the SAG Findings state that the ASC fails to comply with UCDO
9 152.616(HHH)(5)(h) concerning an Emergency Management Plan for fire hazards for the wind
10 energy generation facility.¹⁹⁴ However, UCDO 152.616(HHH)(5)(h)(1) addresses fire district
11 responsibilities and states, “[t]he plan shall verify the fire district and/or contract fire
12 department responsible for providing emergency services. *High rise rescue is the responsibility*
13 *of the Wind Power Generation Facility owner/operator with local emergency responders*
14 *providing ground level assistance.*” (Emphasis added). Therefore, the response from the fire
15 providers that they cannot perform high angle rescues is consistent with UCDO
16 152.616(HHH)(5)(h).

17
18 The Council agrees with the county that adequate emergency planning is a critical component
19 of energy facility siting, including ensuring adequate fire safety and emergency response.
20 Therefore, Public Services Conditions 14 and 15 require the certificate holder to ensure that
21 turbine construction personnel and operations personnel are trained and equipped for fall
22 protection, high angle, and confined space rescue.

23 24 4. UCDO 152.613(D)

25
26 The SAG Findings state that there is a discrepancy between the timing for construction of the
27 proposed facility and the time limitation on “utility related conditional use permits” under
28 UCDO 152.613(D).¹⁹⁵ The comment is misplaced for two reasons. First, even if there would be a
29 discrepancy at all, it is not as great as represented. The SAG Findings state that the applicant is
30 seeking a site certificate that spans six years “in order to await interconnection to be worked
31 out and established to serve the project.” However, pursuant to General Standard Condition 1,
32 the applicant would be required to begin construction within three years after issuance of the
33 site certificate. Pursuant to Organizational Expertise Condition 8, the applicant is required to
34 provide evidence that the developer of the interconnection transmission line has obtained all
35 necessary permits and approval for that line prior to beginning construction on the wind energy
36 facility. Additionally, the applicant would not be able to obtain the conditional use permit from
37 Umatilla County until after the site certificate is issued, but would be required to obtain it
38 before beginning development. The applicant could conceivably obtain the conditional use
39 permit from the county less than two years prior to beginning construction.

40

¹⁹³ WRWAPPDoc34, SAG Comment UBOC, 09-16-2015, p. 19 of SAG Findings.

¹⁹⁴ Id.

¹⁹⁵ WRWAPPDoc34, SAG Comment UBOC, 09-16-2015, p. 20 of SAG Findings.

1 Second, UBOC did not identify UCDO 152.613 as an applicable substantive criterion. Even if it
2 had, the timing provision is a procedural requirement rather than a substantive criteria.
3 Therefore, the construction beginning and completion conditions apply in place of any local
4 code provisions related to timing. UBOC did not directly comment on the sufficiency of the
5 construction beginning or completion deadlines proposed by the applicant independent of the
6 inapplicable UCDO provision.

7
8 5. Variance
9

10 The SAG Findings take issue with the fact that the applicant requested a variance or a goal
11 exception to the extent the proposed facility cannot comply with an applicable substantive
12 criterion.¹⁹⁶ The applicant has since clarified that it is not seeking a variance from either
13 Morrow County or Umatilla County and the statement was removed from the revised Exhibit K.

14
15 Other State Statutes and Rules
16

17 The SAG Findings identify several other state statutes and rules the county seemingly believes
18 are applicable. However, as provided below, the cited provisions are not applicable to this site
19 certificate application.

20
21 1. Goal 3 Exception
22

23 The SAG Findings incorrectly state that the wind energy generation facility requires a Goal 3
24 exception under OAR 660-033-0130(17). However, as discussed in the Morrow County section
25 above, and provided in the OAR 660-033-0120 Table, the 12/20 acre rule included in OAR 660-
26 033-0130(17) applies to "Commercial utility facilities for the purpose of generating power for
27 public use by sale, *not including wind power generation facilities* or photovoltaic solar power
28 generation facilities." (Emphasis added). Therefore, OAR 660-033-0130(17) does not apply to
29 the wind power generation facility and the applicant is not requesting an exception to Goal 3 in
30 Umatilla County.¹⁹⁷

31
32 2. ORS 215.275
33

34 The SAG Findings state that there is no showing that the transmission facilities associated with
35 the proposed facility satisfy ORS 215.275. To the extent the county is referring to the
36 interconnection transmission line, as discussed at length above, the interconnection
37 transmission line is not proposed to be built, owned or operated by the applicant and is
38 therefore not part of the facility for purposes of the Council's land use decision. To the extent
39 the comment is intended to apply to the intraconnection transmission line, the applicant

¹⁹⁶ WRWAPPDoc34, SAG Comment UBOC, 09-16-2015, pp. 20-21 of SAG Finding.

¹⁹⁷ As discussed in the Morrow County section above, the applicant originally requested an exception to Goal 3 for the portion of the wind energy generation facility in Morrow County. However, the Council finds that a Goal exception is not needed due to the direct conflict between the Morrow County code and the LCDC rule.

addresses ORS 215.275 in the revised Exhibit K and the Council addresses ORS 215.275 for the intraconnection line in its entirety below.¹⁹⁸

The SAG Findings specifically raised concerns about the potential impacts of a transmission facility on accepted farming practices, including use of farm equipment, aerial spraying, and irrigation.¹⁹⁹ Each of those concerns were addressed by the applicant in Exhibit K-1 and are addressed for the intraconnection transmission line in the ORS 215.275 section below.

3. ORS 215.283(1)(u)

The SAG Findings indicate that the interconnection transmission line should either be considered a utility facility necessary for public service under ORS 215.283(1)(c) or a “utility facility service line” under ORS 215.283(1)(u).²⁰⁰ The Council understands that the third party that would develop, own and operate the interconnection transmission line would seek approvals for the transmission line as a utility facility necessary for public service under ORS 215.283(1)(c). It does not appear that the interconnection line would qualify as a “utility facility service line” as that term is defined because it would connect the wind energy facility to the electric grid, not deliver electric service to a customer.

4. ORS 215.283(2)(g)/ORS 215.296

ORS 215.283 does not apply directly to the facility. Nonetheless, the wind energy facility has been identified as a type of commercial utility facility for the purpose of generating power for sale by public use, and is considered a conditional use under the acknowledged UCDO. The Umatilla County conditional use standards required under UCDO 152.061 are identical to the conditional use standards included in ORS 215.296. The UCDO 152.061 standards are addressed in Exhibit K and are evaluated above.

However, as discussed throughout this section, transmission lines are considered a utility facility necessary for public service, a permitted use under ORS 215.283(1)(c), rather than a generating facility under ORS 215.283(2)(g). Therefore, the Council evaluated the intraconnection transmission line as a utility facility necessary for public services subject only to the ORS 215.275 provisions for purposes of this ASC. As discussed in Section IV.B, *Organizational Expertise* of this final order, the Council understands that the interconnection

¹⁹⁸The SAG Findings in WRWAPPDoc34, SAG Comment UBOC 09-16-2015, include the following statement in reference to ORS 215.275: “[t]his reasonably should mean that it include that there are no existing available alternative transmission facilities or corridors with fewer agricultural impacts.” This interpretation of the showing required under ORS 215.275 for a utility facility necessary for public service is in direct conflict with LUBA’s interpretation of what is required under ORS 215.275 set forth in *WKN Chopin, LLC vs. Umatilla County*, 66 Or LUBA 1, 11 (2012) (finding that ORS 215.275(2) requires consideration of alternative to siting the proposed facility in an EFU zone, and that ORS 215.275 “simply does not require that an applicant proceed through additional inquiries that are designed to minimize impacts on EFU-zoned land, where non-EFU-zoned alternatives are not available”).

¹⁹⁹ WRWAPPDoc34, SAG Comment UBOC, 09-16-2015, pp. 7-12 in SAG Findings.

²⁰⁰ WRWAPPDoc34, SAG Comment UBOC, 09-16-2015, p. 13 in SAG Findings.

transmission line would also be considered a utility facility necessary for public service rather than a generating facility, and as such would not be subject to the ORS 215.296 conditional use standards or the county equivalent.

IV.E.3 Applicable State Statutes and Rules

ORS 215.275 – Utility Facilities Necessary for Public Service

As discussed above and described in ASC Exhibit B, the applicant would develop an intraconnection transmission line or lines to connect Wheatridge East to Wheatridge West. The intraconnection line(s) would be either single or double circuit 230 kV transmission lines running between a substation in each area. If the intraconnection line is single circuit, the applicant would construct one set of transmission line structures, either H-frame or monopole. If a two circuit intraconnection line is needed, the applicant requested approval for either one set of transmission line monopole structures carrying both circuits, or two sets of parallel transmission line monopole structures each carrying one circuit. The applicant represented that the intraconnection lines would be designed to maintain conductor to ground clearance of 30 feet and that the structures would typically be 60 feet tall and spaced approximately 400 to 800 feet apart. The applicant requested approval for four different intraconnection route options, and indicated that the final intraconnection line route and configuration would be selected based upon the point of connection with the BPA grid. While the four routes are similar, they vary in length depending on the substation connection and would be 24.5 miles under the shortest option and 31.5 miles under the longest option.²⁰¹ Based upon the maps provided by the applicant, the intraconnection line would be located in both Morrow County and Umatilla County and exclusively on EFU zoned land regardless of which route is selected.

Consistent with past Council decisions, the Council evaluates the intraconnection transmission line as a “utility facility necessary for public service,” a use permitted in EFU zoned land pursuant to ORS 215.283(c) subject to compliance with ORS 215.275.²⁰² As provided below, ORS 215.275 includes a list of factors for determining whether the utility facility is necessary for public service and includes standards related to mitigating the impact of the utility on farm uses and farm land.

ORS 215.275 Utility facilities necessary for public service; criteria; rules; mitigating impact of facility.

²⁰¹ ASC, Exhibit B, pp. 8-9.

²⁰² Pursuant to ORS 215.283(c) and ORS 215.274, if the utility facility is an “associated transmission line,” the decision maker must determine that it is necessary for public service by applying the factors provided in ORS 215.274 rather than ORS 215.275. The applicant asserted that the intraconnection transmission line does not meet the definition of an “associated transmission line” at ORS 215.274 and 469.300. The department agreed, and the Council concurs, with that assessment. However, in the event the Council were to find that ORS 215.274 applied instead of ORS 215.275, the applicant addressed the ORS 215.274 factors in Exhibit K in the alternative. ASC, Exhibit K, p. 8.

1 (1) A utility facility established under ORS 215.213 (1)(c)(A) or 215.283 (1)(c)(A) is
2 necessary for public service if the facility must be sited in an exclusive farm use zone in
3 order to provide the service.

4 (2) To demonstrate that a utility facility is necessary, an applicant for approval under
5 ORS 215.213 (1)(c)(A) or 215.283 (1)(c)(A) must show that reasonable alternatives have
6 been considered and that the facility must be sited in an exclusive farm use zone due to
7 one or more of the following factors:

8 (a) Technical and engineering feasibility;

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

13 (c) Lack of available urban and nonresource lands;

14 (d) Availability of existing rights of way;

15 (e) Public health and safety; and

16 (f) Other requirements of state or federal agencies.

17
18 The applicant addressed the factors for determining that a facility must be sited in an EFU zone
19 and contended that the intraconnection transmission line satisfies four of the six factors, and
20 included the following analysis in ASC Exhibit K.²⁰³

- 21
22 **1. Technical and engineering feasibility:** The applicant states that an intraconnection
23 line is required to connect the two parts of the proposed facility site, and that there
24 is not a feasible alternative that would both connect the two parts of the proposed
25 facility and allow for grid interconnection via only one interconnection line.
- 26 **2. The proposed facility is locationally dependent:** A utility facility is locationally
27 dependent if it must cross land in one or more areas zoned for exclusive farm use in
28 order to achieve a reasonably direct route or to meet a unique geographical need
29 that cannot be satisfied on other lands. The applicant explains that there is no route
30 between the two parts of the proposed facility that would achieve a reasonably direct
31 route while not impacting EFU land. Any alternative routing would be circuitous and
32 cost-prohibitive.
- 33 **3. Lack of available urban or nonresource lands:** The applicant states that there are no
34 available urban and non-resource lands that would provide for a reasonably direct
35 route for the proposed intraconnection transmission line while connecting the two
36 parts of the proposed facility.
- 37 **4. Availability of existing rights-of-way:** The applicant explains that there are no
38 available existing rights-of-way on the surface that would provide for a reasonably
39 direct route for the proposed intraconnection transmission line. As stated in Exhibit
40 K, even short segments of public road right-of-way are not suitable for the
41 intraconnection line, as such rights-of-way are between 60 and 100 feet wide, while
42 the intraconnection line requires 150 feet. There is one gas pipeline that runs

²⁰³ ASC, Exhibit K, pp. 7-8.

1 through the region; it runs northeast-southwest and crosses through the northern
2 end of Wheatridge West. However, it does not run through or near Wheatridge East
3 so is not advantageous to follow due to the circuitous route it would necessitate.

4
5 The alternatives analysis required under the county codes and corresponding statutory
6 provision does not require that the applicant evaluate all alternative EFU-zoned routes on
7 which the proposed use could be located. Rather, the applicant must consider reasonable
8 alternatives and show that the proposed facility must be sited on EFU zoned land in order to
9 provide the service, which in this case is transmission service between Wheatridge East and
10 Wheatridge West. As stated in Exhibit K, non-EFU locations are not available for the proposed
11 use. Wheatridge East and Wheatridge West would both be located on EFU zoned lands and are
12 predominantly surrounded by EFU zoned lands. It is not possible to transfer the generated
13 electricity via transmission line from the eastern group of turbines to the western group of
14 turbines without crossing EFU-zoned land. Fundamentally, the intraconnection transmission is
15 locationally dependent because "it must cross land in one or more areas zoned for exclusive
16 farm use in order to achieve a reasonable direct route."

17
18 Because of the necessity to cross EFU zoned land, in addition to the analysis provided for the
19 other factors which provide additional support and justification for the intraconnection route,
20 the Council finds that the intraconnection transmission line is necessary for public service
21 pursuant to the factors set forth in ORS 215.275(2).

22
23 *(3) Costs associated with any of the factors listed in subsection (2) of this section may be*
24 *considered, but cost alone may not be the only consideration in determining that a utility*
25 *facility is necessary for public service. Land costs shall not be included when considering*
26 *alternative locations for substantially similar utility facilities. The Land Conservation and*
27 *Development Commission shall determine by rule how land costs may be considered*
28 *when evaluating the siting of utility facilities that are not substantially similar.*

29
30 As provided above, the intraconnection transmission line is locationally dependent because it
31 must cross EFU zoned land in order to connect Wheatridge East to Wheatridge West.
32 Therefore, the Council finds that cost alone is not the only, or even primary, consideration in
33 determining that the intraconnection line is necessary for public service under ORS 215.275(3).

34
35 *(4) The owner of a utility facility approved under ORS 215.213 (1)(c)(A) or 215.283*
36 *(1)(c)(A) shall be responsible for restoring, as nearly as possible, to its former condition*
37 *any agricultural land and associated improvements that are damaged or otherwise*
38 *disturbed by the siting, maintenance, repair or reconstruction of the facility. Nothing in*
39 *this section shall prevent the owner of the utility facility from requiring a bond or other*
40 *security from a contractor or otherwise imposing on a contractor the responsibility for*
41 *restoration.*

42
43 The applicant would be responsible for all areas temporarily disturbed during construction,
44 maintenance or repair of the facility, including the intraconnection transmission line(s). The

1 applicant has submitted a draft concept of a revegetation plan as attachment P-2 to Exhibit P.
2 Pursuant to Fish and Wildlife Condition 11, the applicant would be required to receive final
3 approval of the Revegetation Plan from the department, in consultation with both Morrow and
4 Umatilla counties, before beginning construction. The applicant would also be required to
5 implement the approved plan during all phases of facility construction and operation.
6 Additionally, Land Use Condition 10 would specifically require the applicant to restore areas
7 temporarily disturbed during facility maintenance or repair. These two conditions apply to the
8 whole facility, which includes the intraconnection transmission line as a related or supporting
9 facility.

10
11 Based upon the evaluation provided above, and subject to compliance with the referenced
12 conditions, the Council finds that the facility would satisfy the restoration requirements of ORS
13 215.275(4).

14
15 *(5) The governing body of the county or its designee shall impose clear and objective*
16 *conditions on an application for utility facility siting under ORS 215.213 (1)(c)(A) or*
17 *215.283 (1)(c)(A) to mitigate and minimize the impacts of the proposed facility, if any, on*
18 *surrounding lands devoted to farm use in order to prevent a significant change in*
19 *accepted farm practices or a significant increase in the cost of farm practices on the*
20 *surrounding farmlands.*

21
22 The applicant identified the lands surrounding the intraconnection transmission line that are
23 devoted to farm use in Attachment K-1 in the revised Exhibit K and the associated figures. The
24 applicant also identified accepted farm practices on those lands. The applicant specifically
25 identified the use of farming equipment within and around the intraconnection transmission
26 line, and noted that there would be very few restrictions on the normal use of farm equipment
27 within the intraconnection line right-of-way. The only referenced exception would be a
28 prohibition on the use of farm equipment that would extend higher than 15 feet directly
29 beneath the intraconnection line.²⁰⁴ The Council agrees with the applicant that this limitation
30 on the extension of farm equipment within the right-of-way would not cause a significant
31 change or significantly increase the cost of farm practices on lands surrounding the right-of-
32 way.

33
34 The applicant also identified aerial spraying as an accepted farming practice in the area. While
35 noting that the presence of transmission lines can increase the risk and difficulty of aerial
36 spraying, the applicant provided a detailed analysis of why the impacts would not cause a
37 significant change in or a significant increase in the cost of aerial spraying.

38
39 The applicant identified two farms that irrigate land as an accepted farming practice that would
40 be crossed by the transmission line.²⁰⁵ The applicant indicated that the intraconnection

²⁰⁴ ASC, Exhibit K, Attachment K-1, p. 7.

²⁰⁵ Id., pp. 7-8.

1 transmission line would cross a small farm located along Little Butter Creek. However, the
2 applicant indicated that the line would span across the farm with no direct impact to the
3 irrigated land or impact to the irrigation system. According to the applicant, the intraconnection
4 transmission line would also cross a small area of irrigated land along Butter Creek.²⁰⁶ In that
5 case, the applicant represented that the intraconnection line would pass between two small
6 center-pivot half circles, and would pose no limitations for the continued use of the irrigation
7 equipment. The applicant represented that as part of final engineering design and construction,
8 all irrigation systems and other facilities that that may be subject to induced voltage or current
9 effects would be identified and properly grounded to eliminate the potential for nuisance shock
10 and the potential for damages to the system that could be caused by induced voltage or
11 current. In order to ensure that the irrigation systems and other facilities that could be
12 impacted by the intraconnection transmission lines are identified and properly grounded, the
13 Council adopts, as amended, Siting Standard Condition 1 as presented in Section IV.Q., *Siting*
14 *Standards for Transmission Lines* of this final order.²⁰⁷

15
16 On the record of the public hearing, W. & L. Seitz and T. Lindsay (commenters) raised issues
17 regarding the proposed facility's potential impacts to accepted farming practices, specifically
18 aerial application and irrigation.²⁰⁸ These commenters stated that the proposed facility would
19 significantly impact the ability to provide and the cost of aerial spraying due to 1) declined
20 service or 2) increased fuel cost due to changes in flight pattern to go over and around the
21 towers. These commenters also raised concern that the "project" does not meet statutory
22 requirements and cited ORS 215.275(5) and ORS 215.283.²⁰⁹ However, for the purpose of the
23 proposed facility, only the proposed intraconnection transmission line is subject to ORS
24 215.275. Commenters did not specifically address the proposed intraconnection transmission
25 line, nor did they provide any evidence or testimony to suggest that the proposed
26 intraconnection transmission line would have any impact on aerial spraying or irrigation.
27 Therefore, this order addresses commenters claims related to impacts on established farming
28 practices in the findings related MCZO 6.025 and UCDO 152.061 provided in Section IV.E of this
29 final order.

30
31 The Council also adopts Land Use Conditions 6, 8, 11, 12, and 21 to reduce the impact of the
32 facility on surrounding farm practices. These conditions apply to the entire facility, but include
33 clear and objective conditions that would minimize and mitigate the impacts of the
34 intraconnection transmission line on surrounding lands devoted to farm use.

²⁰⁶ Id.

²⁰⁷ In the draft proposed order, recommended Land Use Condition 29 stated, "Prior to operation of the intraconnection transmission line, the certificate holder shall identify and properly ground all irrigation systems and other facilities that could be impacted by induced voltage or current." Due to redundancy in requirements, recommended Land Use Condition 29 was incorporated into recommended Siting Standard Condition 1 and deleted from the proposed order.

²⁰⁸ WRWAPPDoc86 DPO Public Comment_W. Seitz 2016-06-03; WRWAPPDoc115 DPO Public Comment_T. Lindsay 2016-06-06.

²⁰⁹ Commenters also cite ORS 215.213; however, this statute applies to counties that adopted marginal lands system prior to 1993 and would not apply to the intraconnection transmission line.

Based on the evaluation provided above and in Exhibit K-1, and subject to compliance with the specified conditions of approval, the Council finds that the condition requirements of ORS 215.275(5) have been satisfied for the intraconnection transmission line.

OAR 660-033-0130(37) – Wind Power Generation Facility Minimum Standards

As relevant to the wind facility, OAR 660-033-0130(37) provides that:

** * * A proposal for a wind power generation facility shall be subject to the following provisions:*

(a) For high-value farmland soils described at OAR 195.300(1), the governing body or its designate must find that all of the following are satisfied:

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

- (i) Technical and engineering feasibility;*
- (ii) Availability of existing rights of way; and*
- (iii) The long term environmental economic, social and energy consequences of siting the facility of component on alternative sites, as determined under paragraph (B);*

OAR 660-033-0130(37)(a)(A) requires the applicant to consider “reasonable alternatives” to locating the facility, or components of the facility, on high-value farmland. The applicant must “show that siting the wind power generation facility or component thereof on high-value farmland soils is necessary for the facility or component to function properly.” In the case of access roads and turbine strings, the applicant must show that these components must be placed on high-value farmland soils “to achieve a reasonably direct route.” To demonstrate the necessity of using high-value farmland for the facility to “function properly” or for a road or turbine string to “achieve a reasonably direct route,” the applicant must consider technical and engineering feasibility and the availability of existing rights-of-way. The applicant must also consider the long term environmental, economic, social and energy consequences of siting the facility or component on alternative sites, as determined under OAR 660-033-0130(37)(a)(B), discussed below.

i. Technical and Engineering Feasibility

As depicted on Table 2 of Attachment K-1, approximately 25% of the site boundary contains HVF, as defined in ORS 195.300(1). Of the total 3,259 acres of HVF within the site boundary, approximately 2,705 acres are located in Morrow County and 565 acres in Umatilla County. Outside the site boundary, but within the analysis area, approximately 27% of the farmland is

1 defined as high-value. When constructed, the facility would cause permanent impacts to HVF to
2 no more than a total of 29.1 acres in Morrow County and 9.0 acres in Umatilla County. The
3 majority of the permanent impacts (86%) would be from access roads, constructed or improved
4 to access wind turbines and met tower sites. 12.4% would be from the turbine footprints, and
5 the remainder would be from substations (1.2%), met towers (.02%) and the intraconnection
6 transmission line(s) (0.1%).
7

8 The Council has previously considered technical and engineering feasibility in light of the state's
9 Energy Conservation Goal (Statewide Planning Goal 13) and has found that a "reasonable
10 alternative" must enable the wind facility to make efficient use of a comparable wind resource,
11 compared to the proposed location that affects HVF soils.²¹⁰ The Planning Guidelines for Goal
12 13 provide that "priority consideration in land use planning should be given to methods of
13 analysis and implementation measures that would assure achievement of maximum efficiency
14 in energy utilization" and "the allocation of land and uses permitted on the land should seek to
15 minimize the depletion of non-renewable sources of energy."²¹¹ The Planning Guidelines direct
16 that land conservation and development actions should "utilize renewable energy sources,"
17 including wind, "whenever possible." The Council has found that an alternative location or
18 configuration of a proposed wind power generation facility on land that does not contain HVF
19 soils is a "reasonable" alternative under OAR 660-033-0130(37)(a)(A) only if the alternative
20 location has a substantially similar wind resource compared to the configuration that would
21 affect HVF soils. The Council has also found an alternative location or configuration of a
22 proposed wind power generation facility on land that does not contain HVF soils is not a
23 "reasonable" alternative under OAR 660-033-0130(37)(a)(A) if the location or configuration
24 would significantly increase the area within the site boundary, significantly increase the area
25 permanently occupied by the facility's components, or significantly increase the length of
26 aboveground transmission lines that are necessary to connect the wind facility to the regional
27 power grid.
28

29 The applicant's evidence indicated that it would not be possible to avoid or substantially reduce
30 impacts on HVF soils without compromising the technical feasibility of the facility. As described
31 by the applicant, the facility access roads would cause the greatest permanent impact on HVF
32 soils. The applicant proposed to use and improve existing roads wherever possible; and many of
33 these existing roads run through HVF soils. Moving these roads outside of HVF soil is not
34 feasible due to what the applicant describes as the 'patchy' nature of the HVF soil, the unusual
35 routes HVF soil avoidance would require, and the impacts to existing farmland that the
36 realignment would require.²¹²
37

²¹⁰ *Final Order on the Application for the Helix Wind Power Facility* (July 31, 2009), pp. 58-60; *Final Order on Amendment #1 for the Leaning Juniper II Wind Power Facility* (November 20, 2009), pp. 40-42.

²¹¹ Oregon's Statewide Planning Goals & Guidelines, Goal 13: Energy Conservation, <http://www.oregon.gov/LCD/docs/goals/goal13.pdf> (accessed November 28, 2012).

²¹² ASC, Exhibit K, Attachment K-1, p. 13.

1 The applicant further explained that relocating 12.4% of the turbines outside of HVF soil is also
2 infeasible from an engineering perspective. As described by the applicant, the turbine locations
3 are driven in large part by the terrain and exposure, which in several instances partially coincide
4 with land identified as HVF soil.²¹³ As the applicant explained, changing the facility layout for
5 the turbines, the met towers or the substations, would have significant detrimental economic
6 and energy-generation impacts on the facility without significantly reducing the impact on HVF
7 soil.²¹⁴

8
9 i. Availability of Existing Rights-of-Way

10
11 This factor applies primarily to access roads and transmission lines associated with a wind
12 power facility, which can sometimes take advantage of existing utility and road rights-of-way to
13 reduce overall project impacts to farmland. The location of access roads is generally dictated by
14 the location of the proposed wind turbines. The applicant has secured wind facility
15 development rights from the landowners of HVF tracts that are located in a geographic location
16 that is available for wind energy facility development. Wind energy facilities have not previously
17 been developed on these lands. However, the applicant plans to use and improve existing road
18 rights-of-way whenever possible, which would reduce new impacts to HVF soils.²¹⁵

19
20 ii. Long-Term Environmental, Economic, Social, and Energy Consequences

21
22 This subsection requires that the long-term environmental, economic, social, and energy
23 consequences of facility siting be considered. These potential consequences are discussed as
24 follows:

25
26 (A) Environmental, Economic, Social and Energy Consequences

27
28 Under OAR 660-033-0130(37)(a)(B), the applicant must show that “the long term
29 environmental, economic, social and energy consequences” of the facility or its components,
30 taking mitigation into account, “are not significantly more adverse than would typically result
31 from the same proposal being located on other agricultural lands that do not include high-value
32 farmland soils.”²¹⁶

33
34 As described by the applicant in Exhibit K, Attachment K-1, other agricultural lands that do not
35 include HVF soils are not available within reasonable proximity to the facility. Therefore, the
36 energy consequence of *not* locating facility components on HVF soils is that 83 turbines would

²¹³ ASC, Exhibit K, Attachment K-1, p. 12.

²¹⁴ ASC, Exhibit K, Attachment K-4, p. 7.

²¹⁵ ASC, Exhibit K, Attachment K-1, p. 13.

²¹⁶ The test is similar to that required under ORS 459.504(2)(c)(B) when the Council determines whether to grant a “reasons” exception to a statewide planning goal: “The significant environmental, economic, social and energy consequences anticipated as a result of the proposed facility have been identified and adverse impacts will be mitigated in accordance with rules of the Council applicable to the siting of the proposed facility.”

1 not be developed, precluding potential renewable energy generation of 28% of the total
2 facility.²¹⁷

3
4 The applicant explained that the social and economic consequences of locating facility
5 components on HVF soils include landowners' opportunity to benefit from wind development
6 on lands that are similar to surrounding lands that have been developed for wind energy. The
7 applicant asserted that "most of the permanent impacts are to already-disturbed agricultural
8 ground. Otherwise, the facility is, from a long-term perspective, environmentally neutral at
9 worst, and can be said to have a positive long-term environmental impact by reducing reliance
10 on carbon-based sources of energy and thereby reducing greenhouse gas emissions."²¹⁸ The
11 applicant added that the 'minimal' long-term environmental, economic, social and energy
12 consequences cannot be significantly reduced by relocating the facility elsewhere in the general
13 vicinity. As the applicant stated, "high value farmland and lands dedicated to agricultural use
14 are found throughout the analysis area, and are distributed such that any chosen location in the
15 general area would be likely to encompass similar proportions of both high value farmland and
16 agricultural lands."²¹⁹

17
18 (B) Costs

19
20 OAR 660-033-0130(37)(a)(C) provides that costs may be considered in the analysis but "may not
21 be the only consideration in determining that siting any component of a wind power generation
22 facility on high-value farmland soils is necessary." Considerations other than cost have been
23 discussed above. The applicant noted that "feasible alternatives affecting materially less high-
24 value farmland are not available in the general area, regardless of cost."²²⁰

25
26 (C) Restoration

27
28 OAR 660-033-0130(37)(a)(D) requires the owner of a wind facility to restore agricultural land
29 damaged by the wind power facility. Exhibit W of the application, addressed in Section IV.G of
30 this final order and the Draft Revegetation Plan (Attachment C) describe the tasks the applicant
31 would perform to restore areas disturbed by the construction, operation, or retirement of the
32 facility. These tasks include removal of concrete to a minimum depth of three feet, and other
33 measures to ensure that agricultural activities at the site are not limited after restoration.²²¹
34 Umatilla County has a similar requirement, which is addressed above in findings regarding
35 UCDO 152.616(HHH)(1) and (m). To ensure adequate restoration, Soil Protection Condition 4
36 requires the certificate holder to restore all areas disturbed by construction, including
37 farmland, according to the requirements of a final Revegetation Plan.

38
39 (D) Additional Criteria

²¹⁷ ASC, Exhibit K, Attachment K-1, Section 2.3.1

²¹⁸ ASC, Exhibit K, Attachment K-4, page 4 (of Attachment K-4).

²¹⁹ ASC, Exhibit K, Attachment K-4, p. 5 (of Attachment K-4).

²²⁰ ASC, Exhibit K, Attachment K-4, p. 5 (of Attachment K-4).

²²¹ ASC, Exhibit W and the Draft Revegetation Plan (Attachment C of this final order).

Subsections (b), (c) and (d) of OAR 660-033-0130(37) provide additional criteria for wind power generation facilities located on “arable” or “nonarable” land. OAR 660-033-0130(37)(b) defines “arable land” as “lands that are cultivated or suitable for cultivation, including high-value farmland soils” and provides criteria for locating a facility on arable land. OAR 660-033-0130(37)(c) defines “nonarable land” as land “not suitable for cultivation” and provides that the criteria in subsection (b)(D) apply on nonarable land. Subsection (d) provides that when a proposed wind power generation facility is located on a combination of arable and nonarable lands, then all of the criteria in subsection (b) apply to the entire facility. The facility is approved to be located on a combination of arable and nonarable lands. Accordingly, the criteria in subsection (b) apply to the entire facility. These criteria are discussed below.

(A) Impacts on Agricultural Operations

OAR 660-033-0130(37)(b)(A) provides that the proposed wind power facility must not “create unnecessary negative impacts on agricultural operations conducted on the subject property.” The potential effects of the facility on agricultural operations and the measures proposed by the applicant to minimize the negative impacts on agricultural operations are discussed above in findings of compliance with MCZO 6.025 and UCDO 152.061. As described by the applicant, these measures (outlined in Exhibit K, Attachment K-4) are intended to avoid unnecessary negative impacts on agricultural operations. The applicant states that the “project is designed and legally structured such that the cost burden of constructing and maintaining the access roads and other facilities would not fall on the landowner and would not increase the costs of farming for affected landowners.”²²²

To ensure compliance with these rules, Land Use Condition 11 requires the certificate holder to design and construct the facility using the minimum land area necessary for safe construction and operation. Land Use Condition 8 would require the certificate holder to consult with surrounding landowners and lessees and implement measures to reduce or avoid any adverse impacts to farm practices on surrounding lands and to avoid any increase in farming costs during construction and operation of the facility.

(B) Soil Erosion or Loss

OAR 660-033-0130(37)(b)(B) provides that “the presence of a proposed wind power facility” must not result in unnecessary soil erosion or loss that could limit agricultural productivity. Potential adverse impacts to soils and measures to avoid or control soil erosion and loss are addressed by the Council’s Soil Protection standard, discussed in Section IV.D, *Soil Protection* of this order. The findings in that section indicate that construction and operation of the facility would not result in unnecessary soil erosion or loss that would reduce the productivity of soil for crop production.

²²²ASC, Exhibit K, Attachment K-4, pp. 7-8 (of Attachment K-4).

1 (C) Soil Compaction

2
3 OAR 660-033-0130(37)(b)(C) provides that facility construction or maintenance activities must
4 not result in unnecessary soil compaction that reduces the productivity of soil for crop
5 production. Potential adverse impacts to soils and measures to avoid or control soil compaction
6 are addressed by the Council's Soil Protection standard, discussed in Section IV.D, *Soil*
7 *Protection* of this order. The findings in that section indicate that construction and operation of
8 the proposed facility would not result in unnecessary soil compaction that would reduce the
9 productivity of soil for crop production.

10
11 (D) Weed Control

12
13 OAR 660-033-0130(37)(b)(D) provides that facility construction or maintenance activities must
14 not result in the "unabated introduction or spread of noxious weeds and other undesirable
15 weeds species." To ensure compliance with this rule, and as discussed above in findings
16 regarding UDCO 152.061 and MCZO 3.010(D), the Council imposes Land Use Condition 6.

17
18 Based on the evidence in the record and this analysis, the Council finds that the applicant has
19 shown that siting components of the wind power generation facility on HVF soils is necessary as
20 required under OAR 660-033-0130(37)(a)(A), and that the facility otherwise satisfies the
21 requirements of OAR 660-033-0130(37).

22
23 **Conclusions of Law**

24
25 Based on the foregoing findings and the evidence in the record, and subject to compliance with
26 the site certificate conditions, the Council finds that the facility would comply with the
27 identified applicable substantive criteria and the directly applicable state statute and rule and,
28 therefore, would comply with the Council's Land Use standard.

29
30 **IV.F. Protected Areas [OAR 345-022-0040]**

31
32 *(1) Except as provided in sections (2) and (3), the Council shall not issue a site certificate*
33 *for a proposed facility located in the areas listed below. To issue a site certificate for a*
34 *proposed facility located outside the areas listed below, the Council must find that,*
35 *taking into account mitigation, the design, construction and operation of the facility are*
36 *not likely to result in significant adverse impact to the areas listed below. References in*
37 *this rule to protected areas designated under federal or state statutes or regulations are*
38 *to the designations in effect as of May 11, 2007:*

39
40 *(a) National parks, including but not limited to Crater Lake National Park and Fort*
41 *Clatsop National Memorial;*
42

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

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

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

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

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

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

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

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

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

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

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

41
42 ***(m) Agricultural experimental stations established by the College of Agriculture,***
43 ***Oregon State University, including but not limited to:***
44

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

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

23
24 *(o) Bureau of Land Management areas of critical environmental concern,*
25 *outstanding natural areas and research natural areas;*

26
27 *(p) State wildlife areas and management areas identified in OAR chapter 635,*
28 *Division 8.*

29 ***
30

31 **Findings of Fact**

32

33 The Protected Areas standard requires the Council to find that, taking into account mitigation,
34 the design, construction and operation of a facility are not likely to result in significant adverse
35 impacts to any protected area as defined by OAR 345-022-0040.²²³ As required under OAR 345-
36 021-0010(L), the applicant identifies the protected areas within the analysis area and evaluates
37 the following potential impacts during proposed facility construction and operation: excessive

²²³ OAR 345-001-0010(53) defines "Significant" as "...having an important consequence, either alone or in combination with other factors, based upon the magnitude and likelihood of the impact on the affected human population or natural resources, or on the importance of the natural resource affected, considering the context of the action or impact, its intensity and the degree to which possible impacts are caused by the proposed action. Nothing in this definition is intended to require a statistical analysis of the magnitude or likelihood of a particular impact."

noise, increased traffic, water use, wastewater disposal, visual impacts of facility structures or plumes, and visual impacts from air emissions.²²⁴ In accordance with OAR 345-001-0010(59)(e) (definitions), the applicant defines the analysis area as the area within and extending 20 miles from the site boundary. The applicant addressed protected areas in Exhibit L of the ASC. The applicant's assessment of impacts to protected areas also relied on information presented in Exhibit R (Scenic Resources) and Exhibit X (Noise) of the ASC.

Table PA-1, *Protected Areas within Proposed Facility Analysis Area*, presents 16 protected areas identified by the applicant within the analysis area, the applicable subparagraph of OAR 345-022-0040(1), the approximate distance from the site boundary, the direction of each protected area from the facility, a determination of whether facility components would be visible or partially visible, and whether facility components would be audible during operation.

Table PA-1: Protected Areas within Facility Analysis Area

Protected Area (OAR Reference)	Distance from Site Boundary (in miles)	Direction	Would proposed facility structures be visible? ¹ (Yes/No)	Would proposed facility operational noise be audible? (Yes/No)
Umatilla National Wildlife Refuge (345-022-0040(1)(d))	14	NNW	Yes	No
Cold Springs National Wildlife Refuge (345-022-0040(1)(d))	13	NE	Yes	No
McNary National Wildlife Refuge (345-022-0040(1)(d))	18	NE	Yes	No
Umatilla Hatchery (345-022-0040(1)(f))	20	N	Yes	No
Irrigon Hatchery (345-022-0040(1)(f))	17.5	N	Yes	No
Three Mile Adult Hold Fish Hatchery (345-022-0040(1)(f))	13.5	N	Yes	No
Hat Rock State Park (345-022-0040(1)(h))	16.5	NE	Yes	No
Lindsay Prairie Preserve (345-022-0040(1)(i))	0	W	Yes	Yes
Oregon State University Agriculture Research and	9	N	Yes	No

²²⁴ The facility would not generate any emission plumes and would not result in visual impacts from air emissions. Therefore, visual impacts from air emissions resulting from proposed facility construction or operation, including but not limited to impacts on Class I Areas as described in OAR 340-204-0050 is not applicable and therefore not addressed in this order.

Table PA-1: Protected Areas within Facility Analysis Area

Protected Area (OAR Reference)	Distance from Site Boundary (in miles)	Direction	Would proposed facility structures be visible? ¹ (Yes/No)	Would proposed facility operational noise be audible? (Yes/No)
Extension Center, Hermiston (345-022-0040(1)(m))				
Oregon Trail ACEC/Echo Meadows (345-022-0040(1)(o))	2.7	N	Yes	No
Horn Butte Curlew ACEC (345-022-0040(1)(o))	15	NW	Yes	No
Boardman RNA (345-022-0040(1)(o))	2.3	NNW	Yes	No
Irrigon Wildlife Management Area (345-022-0040(1)(p))	16.5	N	Yes	No
Power City Wildlife Management Area (345-022-0040(1)(p))	14.5	N	Yes	No
Coyote Springs Wildlife Management Area (345-022-0040(1)(p))	14	N	Yes	No
Willow Creek Wildlife Management Area (345-022-0040(1)(p))	18	NW	Yes	No
Notes: 1. "Facility structures" refers to the visibility of any part of a wind turbine, intraconnection transmission line, or other proposed facilities as determined through viewshed analysis. Source: Information presented in Table PA-1 obtained from Table L-2 of Exhibit L of the ASC.				

Noise

Noise generated by construction and operation of the facility was discussed in Exhibit X of the ASC and analyzed in Section IV.R., *Noise Control Regulation* of this order for purposes of compliance with the DEQ noise regulations at OAR Chapter 340, Division 35. Under OAR 340-035-0035(5)(g), noise produced during construction is exempt from DEQ noise regulations. Nevertheless, the applicant evaluated potential noise impacts from facility construction in ASC Exhibit X. Section IV.R., *Noise Control Regulation* of this order includes conditions related to reducing noise impacts during construction.

1 The Lindsey Prairie Preserve, a site managed to protect native grassland and wildlife habitat,
2 would be the closest protected area within the analysis area to facility construction activities.
3 The closest portion of the facility to the Lindsay Prairie Preserve is less than one mile west of
4 the site boundary. All other protected areas are located two miles or more from the site
5 boundary. During construction, the applicant estimates that the Lindsay Prairie Preserve could
6 experience peak noise levels of approximately 55 dBA. The applicant explains that peak noise
7 levels would be short-term and temporary and would not exceed a period of four weeks. In
8 addition, due the linear nature of construction activities, noise levels would continue to
9 decrease due to attenuation as construction of access roads and turbines progresses away from
10 the Lindsey Prairie Preserve. Because of the temporary and linear nature of construction
11 activities, the applicant asserted construction noise was not likely to result in significant adverse
12 noise impacts to the Lindsey Prairie Preserve or at any of the remaining 15 protected areas
13 within the analysis area, all of which are located further from the site boundary than the
14 Lindsey Prairie Preserve.

15
16 The applicant proposed to minimize temporary noise impacts during construction by utilizing
17 electrically-powered equipment, limiting use of noise-producing signals for purposes other than
18 emergencies, using equipment with properly sized and maintained mufflers, using engine
19 intake silencers, and establishing a noise complaint response system. To ensure compliance
20 with these proposals, these measures are imposed in Noise Control Condition 1.

21
22 As explained in Exhibit L, during operation of the facility, the worst-case modeled noise level in
23 NRO mode²²⁵ at the Lindsay Prairie Preserve would be approximately 36 to 54 dBA. The
24 applicant asserted that this was approximately equivalent to the sound level of a normal
25 conversation. The Lindsay Prairie Preserve is a site protected for restoration and preservation of
26 native vegetation and wildlife, and based on the applicant's evaluation, received no known
27 public use. The protected area is fenced and the access road is gated and locked. The applicant
28 states that the protected area contains no developed facilities of any kind; camping is
29 prohibited, and there are no trails. The applicant asserted that noise levels of 36 to 54 dBA,
30 although audible, would not be expected to interfere with the primary purpose (native
31 grassland and wildlife habitat preservation) of the Lindsay Prairie Preserve and therefore the
32 applicant concludes that the protected area would not experience significant adverse noise
33 impacts from facility operation. Based upon the information provided, the Council concurs with
34 the applicant's assessment and also concurs that, due to noise attenuation, all other protected
35 areas, which are located at distances of more than two miles from the site boundary, would not
36 be expected to experience noise impacts greater than existing background noise levels.

37
38 To ensure the protected areas are not adversely impacted by operational noise, as provided in
39 Section IV.R, *Noise Control Regulations* of this order, the Council imposes Noise Control
40 Condition 2, which would require the applicant to identify the NRO mode approach that would
41 be used during proposed facility operation and include a figure that depicts the turbines that

²²⁵ The applicant identified two different NRO modes that it proposes to use during operation of the facility, Approach 1 and Approach 2. ASC, Exhibit X, p. 13.

1 would be operating in NRO mode and the associated dBA reduction level. Further, the Council
2 imposes Noise Control Condition 3 to ensure that the facility is not operated at full power mode
3 and that the certificate holder includes a certification in its annual Compliance Report that the
4 NRO mode turbines identified in the preconstruction analysis required by Noise Control
5 Condition 2 are operating at or below the identified dBA reduction level. The implementation of
6 these conditions would help ensure that the noise levels at Lindsay Prairie Preserve would not
7 be likely to exceed the predicted maximum of 54 dBA.

8
9 Based on the applicant's analysis, and subject to compliance with Noise Control Conditions 1, 2
10 and 3 set forth in Section IV.R, *Noise Control Regulations* of this order, the Council finds that
11 the noise generated by the construction and operation of the facility would not be likely to
12 result in significant adverse noise impacts to protected areas.

13 14 *Traffic*

15
16 A detailed traffic analysis is presented in Exhibit U of the ASC and analyzed in Section IV.M.,
17 *Public Services* of this order.

18
19 As explained in ASC Exhibit U, trucks would utilize I-84, OR-207 and local county roads during
20 construction. Traffic-related activities would include deliveries of construction materials
21 (construction equipment, turbine components, substation equipment, transmission line
22 equipment, road base aggregate, concrete, and water for dust control). The applicant explained
23 that facility construction traffic would not occur north of I-84, and construction worker traffic
24 would be dispersed on many roads in the area, rather than concentrated on any one road. All
25 but five of the protected areas are located north of I-84 and therefore, those areas would be
26 largely unaffected by temporary traffic impacts generated during proposed facility
27 construction. Of the five protected areas south of I-84, only the Boardman Research Natural
28 Area (RNA) and Lindsay Prairie Preserve are likely to experience impacts from facility traffic; the
29 Willow Creek Wildlife Management Area, Horn Butte Area of Critical Environmental Concern
30 (ACEC) and the Oregon Trail ACEC are accessed by routes that would not carry facility-related
31 truck traffic. During construction, BMPs as detailed in Exhibit U, Section 3.5.4 would ensure that
32 access restrictions to any protected area would be temporary and timed to avoid peak traffic
33 flow. In addition, the applicant stated that construction of the facility would not result in
34 closure of any protected area access roads. Potential traffic impacts during facility construction
35 would be intermittent and temporary, and traffic levels would return to normal following
36 construction.

37
38 During operations, the facility would generate an additional 10 to 20 one-way trips on existing
39 local roads and new facility access roads. Based on the minimal number of operational trips, the
40 Council agrees with the applicant that the increase would not be likely to have any impact on
41 protected areas, including access points to protected areas.²²⁶

42

²²⁶ See Section IV.M, *Public Services* of this final order for further discussion of traffic impacts.

1 Based on the applicant's analysis and conclusions, the Council finds that potential traffic-related
2 impacts during construction and operation of the facility would not likely result in significant
3 adverse impacts to any protected areas.

4 5 *Water Use and Wastewater Disposal*

6
7 The applicant discussed the facility's water use in Exhibit O. Generation and management of
8 wastewater during construction and operation are evaluated in Exhibit V and discussed in
9 Section IV.N, *Waste Minimization* of this order.

10
11 The applicant estimated construction of the facility would use approximately 43.2 to 78 million
12 gallons of water for road construction, concrete mixing, dust suppression and other
13 construction-related activities from licensed sources in the vicinity of the facility; no ground or
14 surface water withdrawals would take place beyond those already permitted for existing water
15 suppliers. During operation, the facility would have minimal water needs that would be fulfilled
16 through the use of exempt wells at the O&M buildings. Therefore, the applicant does not
17 anticipate any impact to protected areas from water use during construction or operation of
18 the facility.

19
20 As explained in Exhibit L, the applicant indicates that industrial wastewater would not be
21 produced during construction or operation of the facility. Stormwater runoff would be
22 managed on site according to the BMPs as described in the NPDES 1200-C / Erosion and
23 Sediment Control Plan (Exhibit I, Attachment I-2), such that no stormwater would leave the site
24 boundary. During construction, sanitary wastewater would be contained in portable toilets,
25 which the applicant explains would be provided and maintained by a licensed contractor.
26 During operations, sanitary wastes from the O&M buildings would be discharged to a permitted
27 onsite septic system.

28
29 In Section IV.D, *Soil Protection* of this order the Council imposes several conditions to ensure
30 that activities that generate wastewater are managed in a way that protects soils and are
31 conducted in accordance with the requirements of an NPDES 1200-C stormwater discharge
32 permit. Subject to compliance with the site certificate conditions, the Council agrees that the
33 facility would be unlikely to result in adverse impacts to soils on the facility site from
34 wastewater discharges and therefore would also be unlikely to result in adverse impacts to
35 protected areas adjacent to or near the site.

36
37 For the reasons described above, the Council finds that water use and disposal during
38 construction and operation of the facility would not likely result in a significant adverse impact
39 to water quality or quantity within any protected area.

40 41 *Visual Impacts*

42
43 The applicant conducted a zone of visual influence (ZVI) analysis, or visibility analysis, of the
44 facility using Environmental Systems Research Institute ArcGIS software and digital bare earth

1 modeling to identify areas from which proposed facility structures (i.e. turbines) might be
2 visible. The applicant noted that this “bare-earth” modeling approach, based only on the effects
3 of terrain on visibility, results in a highly conservative assessment of potential visibility for
4 several reasons. In some areas where the analysis indicates facility structures would be visible,
5 the only visible components might be the tips of the turbine blades at maximum blade tip
6 height (MBTH), which the applicant indicates would likely be noticeable only at relatively close
7 viewing distances. In addition, the model does not account for distance, lighting, weather, and
8 atmospheric attenuation factors that diminish visibility under actual field conditions. A bare-
9 earth analysis also does not take into account the effects of vegetation or buildings, which
10 could block or screen views in some places. Finally, the applicant explained that the use of
11 turbine heights in the model that are 10% greater than the actual height overstates likely
12 visibility.

13
14 The results of the ZVI analysis indicate that one or more facility components would be visible or
15 partially visible from all 16 protected areas within the analysis area (see Table PA-1, *Protected*
16 *Areas within the Proposed Facility Analysis Area*). However, as explained in Exhibit L, the
17 applicant considered visual impacts to be negligible for most protected areas, primarily due to
18 their distance of 9 to 20 miles from the site boundary. Many of the protected areas currently
19 have views of other wind farms, transmission lines, and urban and industrial development and
20 therefore the facility would not introduce a new or unusual feature to the view. In addition, the
21 applicant explained that potential views of the facility from some of the protected areas would
22 be partially to fully screened by vegetation.

23
24 Three of the protected areas closest to the site boundary, including the Boardman RNA, the
25 Lindsay Prairie Preserve, and the Oregon Trail ACEC, would have foreground to middleground
26 views of the facility. Potential visual impacts from the facility at these three protected areas are
27 evaluated further below.

28 29 Boardman Research Natural Area

30 The Boardman RNA, which functions to provide protection for preservation of native vegetation
31 and wildlife, is located entirely within the Boardman Bombing Range, approximately 2.3 miles
32 from the site boundary. The ZVI analysis indicates that more than 150 turbines would be visible
33 from the Boardman RNA at a middleground viewing distance. However, as the applicant
34 explained, the site is not managed for its scenic qualities and views of the facility would not
35 interfere with the functional purpose of vegetation and wildlife preservation. The Boardman
36 RNA is not publically accessible and is primarily visited by staff from The Nature Conservancy
37 conducting monitoring and maintenance activities. Therefore, the change in viewshed from the
38 facility would impact a relatively low number of users. Moreover, the existing viewshed
39 includes transmission lines, wind turbines, and agricultural irrigation equipment. Therefore, the
40 applicant asserted that the visual impact of the facility at the Boardman RNA is considered low
41 to negligible.

Lindsay Prairie Preserve

The Lindsay Prairie Preserve, which functions to provide protection for preservation of native vegetation and wildlife, is located less than one mile from the site boundary. The site is not managed for its scenic qualities and views of the facility would not interfere with the functional purpose of vegetation and wildlife preservation. The ZVI analysis indicated that more than 150 turbines would be visible from the Lindsay Prairie Preserve at close viewing distances, and in several directions. However, as the applicant explained, the Preserve is fenced, the access gated and locked, there are no facilities of any kind, and the area receives little public use. While the existing viewshed contains few structures, the change in viewshed from the facility would impact a relatively low number of users. Therefore, the applicant asserted that the visual impact of the facility at the Lindsay Prairie Preserve was considered low.

Oregon Trail Area of Critical Environmental Concern (ACEC), Echo Meadows

The Oregon Trail ACEC, or Echo Meadows, which functions to provide preservation and enjoyment of a historic trail segment, is located approximately 2.7 miles north of Wheatridge East. As explained in Exhibit L of the ASC, the site is managed to preserve scenic quality under the BLM Visual Resource Management system; however, there are no designated views or viewsheds associated with this ACEC. The applicant stated that views of the facility would not interfere with the site's historic interest, potential use as a tourism resource, or as an ACEC.

The ZVI analysis indicates 50 to 150 turbines would be visible at middleground to background viewing distances at Echo Meadows. The applicant also conducted a supplemental visual resource assessment, as presented in Exhibit R of the ASC, including a visual simulation of the proposed facility at the Oregon Trail ACEC from Oregon Trail Road (see Figure R-9 in Exhibit R of the ASC). The existing viewshed, as presented in Figure R-9 of Exhibit R of the ASC, included transmission lines and wind turbines. The applicant explained that turbines would appear smaller than existing man-made features within the viewshed. Therefore, the applicant concluded that while the site is managed to preserve scenic quality, because there are no designated view or viewsheds within the ACEC and the existing viewshed contained transmission lines and wind turbines, visual impacts of the facility would not compromise the integrity of the remaining evidence of the Oregon Trail at this site.²²⁷

On the record of the public hearing, Mr. G. Harrison raised issues regarding the visual impact of the proposed facility's turbines, roads, and other disturbances on protected areas including Echo Meadows and the historic Oregon Trail. Mr. G. Harrison stated that there should be no distraction looking to or from the Oregon Trail and that mitigation for any disturbance should be exceedingly high. On the record of the June 6, 2016 public hearing, on behalf of the applicant, D. Petersen notes that Mr. G. Harrison is a member of the Northwest Oregon California Trails Association (NWOCTA) and that during the ASC phase the applicant communicated via email with NWOCTA, including Mr. G. Harrison, on several occasions. D. Petersen provided email correspondence from Preservation Officer William Symms, carbon copying G. Harrison, which explained that as long as the proposed facility was located on

²²⁷ WRWAPPDoc72 DPO Public Comment_G.Harrison 2016-05-19.

1 private land at least one mile away from the Well Spring and Echo Meadows sites, that
2 NWOCTA had no objections to the visual impacts of the proposed facility. D. Petersen further
3 explained that, consistent with NWOCTA's request, turbines would be located approximately
4 1.5 miles from the referenced protected areas. Additionally, the Navy, which is the steward of
5 many significant Oregon Trail-related resources on the Boardman Bombing Range, including the
6 Well Spring site commented that they had no substantive comments on the draft proposed
7 order.²²⁸

8
9 On the record of the June 6, 2016 public hearing, Ms. Gilbert/FGRV raised concern with the
10 department's recommendation to Council that none of the protected areas within the analysis
11 area would experience significant adverse visual impacts from facility structures. Ms.
12 Gilbert/FGRV further requested that the Council impose additional setback requirements and
13 limits on number of turbines that would be visible from any protected area.²²⁹

14
15 As stated above, the Protected Areas standard requires the Council to find that, taking into
16 account mitigation, the design, construction and operation of a facility are not likely to result in
17 significant adverse impacts to any protected area as defined by OAR 345-022-0040. OAR 345-
18 001-0010(53) defines "significant" as:

19
20 "having an important consequence, either alone or in combination with other factors, based
21 upon the magnitude and likelihood of the impact on the affected human population or
22 natural resources, or on the importance of the natural resources affected, considering the
23 context of the action or impact, its intensity and the degree to which possible impacts are
24 caused by the proposed action. Nothing in this definition is intended to require a statistical
25 analysis of the magnitude or likelihood of a particular impact."

26
27 Therefore, the significance of the potential visual impacts at identified protected areas is based
28 on the magnitude and likelihood of the impact on the affected human population or natural
29 resource. The Council's standard requires a finding that a proposed facility is not likely to have a
30 significant adverse impact, but does not require a finding that a proposed facility is unlikely to
31 have any adverse impacts.

32
33 Based on the analysis presented above, the Council concurs with the applicant's analysis and
34 conclusions regarding impacts to each of the three protected areas closest to the site boundary
35 (Boardman RNA, the Lindsay Prairie Preserve, and the Oregon Trail ACEC).²³⁰ Scenic Resources
36 Condition 1, Scenic Resources Condition 2, and Land Use Condition 9 are intended to minimize

²²⁸ On behalf of the United States Department of Navy, K. Meenaghan commented in support of the cultural and natural resource investigations conducted by the applicant and raised no issues. WRWAPPDoc77 DPO Public Comment_Navy 2016-05-23

²²⁹ WRWAPPDoc100 DPO Public Comment_I. Gilbert 2016-06-06.

²³⁰ On the record of the June 6, 2016 public hearing, Morrow County on behalf of the Morrow County Court weighed in that they would find that there are no additional or significant impacts to the Oregon Trail in Morrow County. The Echo Meadows Oregon Trail ACEC is in Morrow County. WRWAPPDoc117 DPO SAG Comment_Morrow County 2016-06-06.

1 potential visual impacts of proposed facility structures from viewpoints at the identified
2 protected areas. The Council finds that while facility components would result in a change to
3 the existing viewshed of the protected areas discussed above, due to the low impact to users,
4 no specified management of scenic or visual qualities (or designated views or viewsheds), and
5 presence of similar structures within the existing viewshed, the visual impacts of construction
6 and operation of the facility would not likely result in a significant adverse impact to any
7 protected area.

9 **Conclusions of Law**

11 Based on the foregoing findings, and subject to compliance with the site certificate conditions,
12 the Council concludes that, taking into account mitigation, the design, construction and
13 operation of the facility would not be likely to result in significant adverse impacts to any
14 protected areas, in compliance with the Council's Protected Area standard.

16 **IV.G. Retirement and Financial Assurance [OAR 345-022-0050]**

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

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

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

28 **Findings of Fact**

29 The Retirement and Financial Assurance standard requires a finding that the facility site can be
30 restored to a useful, non-hazardous condition at the end of the facility's useful life, should
31 either the certificate holder stop construction or should the facility cease to operate.²³¹ In
32 addition, it requires a demonstration that the applicant can obtain a bond or letter of credit to
33 restore the site to a useful, non-hazardous condition.

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

37 OAR 345-022-0050(1) requires the Council to find that the proposed facility site can be restored
38 to a useful non-hazardous condition at the end of the proposed facility's useful life. The Council
39 has interpreted the term "useful, nonhazardous condition" to mean a condition consistent with

²³¹ OAR 345-022-0050(1).

1 the applicable local comprehensive land use plan and land use regulations.²³² The facility is
2 located entirely on EFU zoned land.²³³ Therefore, to satisfy this standard, the applicant must
3 show that the site can be restored to a non-hazardous condition suitable for EFU-zoned lands.
4 The applicant estimated the facility's useful life as 50 years.²³⁴

5
6 Restoring the site to a useful, nonhazardous condition upon cessation of construction or
7 operations (or upon retirement) would involve removal of all turbine components,²³⁵
8 meteorological towers, aboveground electrical components, transformers and other substation
9 equipment. The applicant stated that O&M buildings would be demolished and disposed of at
10 an appropriate facility, or converted to agricultural buildings for use by the landowners. As
11 explained in Exhibit W, concrete foundations would be removed to a minimum depth of three
12 feet below grade.²³⁶ Underground cables that are at least three feet below grade would be left
13 in place. Gravel surfacing material would be removed, the impacted area would be
14 decompacted as needed, the area regraded to appropriate contours and topsoil replaced, and
15 the area would be revegetated unless the landowner indicates a desire to leave the new or
16 expanded roads in place.²³⁷

17
18 The Council's rules include several mandatory site certificate conditions relating to the
19 obligation of the certificate holder to prevent the development of conditions on the site that
20 would preclude restoration of the site and requiring the certificate holder to obtain Council
21 approval of a retirement plan in the event that the facility ceases construction or operation:

22
23 **Retirement and Financial Assurance Condition 1:** The certificate holder shall prevent the
24 development of any conditions on the site that would preclude restoration of the site to a
25 useful, non-hazardous condition to the extent that prevention of such site conditions is
26 within the control of the certificate holder. [Mandatory Condition OAR 345-027-0020(7)]

27
28 **Retirement and Financial Assurance Condition 2:** The certificate holder must retire the
29 facility in accordance with a retirement plan approved by the Council if the certificate
30 holder permanently ceases construction or operation of the facility. The retirement plan
31 must describe the activities necessary to restore the site to a useful, nonhazardous
32 condition, as described in OAR 345-027-0110(5). After Council approval of the plan, the
33 certificate holder must obtain the necessary authorization from the appropriate regulatory
34 agencies to proceed with restoration of the site. [Mandatory Condition OAR 345-027-
35 0020(9)]

²³² See, e.g., *Final Order on the Klondike III Wind Project* (June 30, 2006), p.16.

²³³ ASC, Exhibit K, Figure K-2.

²³⁴ ASC, Exhibit W, p.2.

²³⁵ As explained in Exhibit W of the ASC, hazardous materials associated with the proposed facility would largely be limited to oils in turbine gearboxes and transformers; these materials would be pumped out by a specialized vehicle for recycling prior to equipment removal.

²³⁶ 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.

²³⁷ ASC, Exhibit W, p.2.

Retirement and Financial Assurance Condition 3: The certificate holder is obligated to retire the facility upon permanent cessation of construction or operation. If the Council finds that the certificate holder has permanently ceased construction or operation of the facility without retiring the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110, the Council must notify the certificate holder and request that the certificate holder submit a proposed final retirement plan to the department within a reasonable time not to exceed 90 days. If the certificate holder does not submit a proposed final retirement plan by the specified date, the Council may direct the department to prepare a proposed final retirement plan for the Council's approval.

Upon the Council's approval of the final retirement plan, the Council may draw on the bond or letter of credit described in OAR 345-027-0020(8) to restore the site to a useful, nonhazardous condition according to the final retirement plan, in addition to any penalties the Council may impose under OAR Chapter 345, Division 29. If the amount of the bond or letter of credit is insufficient to pay the actual cost of retirement, the certificate holder must pay any additional cost necessary to restore the site to a useful, nonhazardous condition.

After completion of site restoration, the Council must issue an order to terminate the site certificate if the Council finds that the facility has been retired according to the approved final retirement plan. [OAR 345-027-0020(16)]

In Section IV.B, *Organizational Expertise* of this order, the Council finds that the applicant has the organizational expertise to construct, operate, and retire the facility in compliance with that Council standard. In addition, the Council finds that the applicant meets the Council's Soil Protection, Fish and Wildlife Habitat, and Waste Minimization standards (Sections IV.D, IV.H, and IV.N of this order, respectively). Each of those sections imposes conditions on the certificate holder that are designed to ensure that construction and operation of the facility would not have adverse impacts on the surrounding land.

Based on the applicant's proposal and those findings, and subject to compliance with the conditions listed above, the Council finds that the facility site can be adequately restored to a useful, non-hazardous condition following permanent cessation of construction or operation of the facility.

Estimated Cost of Site Restoration

OAR 345-022-0050(2) requires the Council to find that the applicant has a reasonable likelihood of obtaining a bond or letter of credit in a form and amount necessary to restore the proposed facility site to a useful non-hazardous condition. A bond or letter of credit provides a site restoration remedy to protect the state of Oregon and its citizens if the certificate holder fails to perform its obligation to restore the site. The bond or letter of credit must remain in force until the certificate holder has fully restored the site. OAR 345-027-0010(8) establishes a mandatory condition, included as Retirement and Financial Assurance Condition 4, which ensures compliance with this requirement.

The applicant used the department's *Cost Estimating Worksheet* to estimate that the total site restoration cost (calculated in Q1 2015 dollars) would be approximately \$18.1 million. A summary of the applicant's cost estimate from Attachment W-1 of Exhibit W is presented in Table RF-1, *Applicant's Site Restoration Cost Estimate* below.²³⁸ The applicant based its estimate on the assumption that site restoration would require, at a maximum, removal and restoration for the following proposed facility components:

- 292 turbines and ancillary equipment;
- twelve meteorological towers;
- two O&M buildings;
- three substations;
- approximately 10.8 miles of aboveground 34.5-kV collector line;
- approximately 63 miles of 230 kV transmission line;
- 60 junction boxes;
- restoration of approximately 37 miles of access roads; and
- 283 acres that would be impacted by the removal activities associated with the facility components listed above.

Table RF-1: Applicant's Site Restoration Cost Estimate

Proposed Facility Component	Restoration Activity	Cost Estimate
Turbines	Dismantle and remove equipment and foundations; restore site	\$7,980,827
Meteorological Towers	Dismantle and dispose equipment	\$124,716
O&M Facilities	Dismantle and dispose equipment	\$125,772
Substations	Dismantle and dispose equipment	\$564,282
Collector Lines	Remove above-ground cables	\$69,951
Transmission Lines	Remove above-ground cables	\$1,865,493
Junction Boxes	Remove electrical to 4' below grade	\$3,060
Access Roads	Remove, grade and seed	\$875,539
Restoration of Additional Areas Disturbed by Facility Removal	Grade and seed	\$1,694,760
General Costs	Permits, mobilization, engineering, other direct costs	\$465,536
Subtotal		\$13,769,936
Subtotal Adjusted to Current Dollars (Q1 2015 dollars)		\$14,946,409
Performance Bond	1%	\$149,464
Gross Cost (Adjusted)		\$15,095,873
Administration and Project Management	10%	\$1,509,587

²³⁸ The detailed cost estimate is included in Attachment W-1 to Exhibit W of the ASC but is not included in Table 1.

Table RF-1: Applicant's Site Restoration Cost Estimate

Proposed Facility Component	Restoration Activity	Cost Estimate
Future Development Contingency	10%	\$1,509,587
Total Site Restoration Cost (current dollars)		\$18,115,048
Total Site Restoration Cost (rounded to nearest \$1,000)		\$18,115,000

The Council reviewed the cost estimate and finds the applicant's estimated cost of \$18.1 million (Q1 2015 dollars) is a reasonable estimate of an amount satisfactory to restore the site to a useful, nonhazardous condition.

Ability of the Applicant to Obtain a Bond or Letter of Credit

Based on the estimate shown in Table RF-1, *Applicant's Site Restoration Cost Estimate* the value of the financial assurance bond or letter of credit for restoring the site of the facility would be approximately \$18.1 million (Q1 2015 dollars), adjusted annually as described in the recommended condition below.

The applicant provided information about its financial capability in Exhibit M, *Financial Capability* of the ASC. The applicant proposed to provide a financial assurance bond or letter of credit in a form approved by the Council before beginning construction of the facility. To demonstrate its ability to receive an adequate bond or letter of credit, the applicant provided a letter from Bank of Eastern Oregon dated December 4, 2014, stating that Jerry Rietmann, Chairman of Wheatridge Wind Energy, LLC, has "the ability to effectively manage the Wheatridge Wind Energy project to its completion" and that the Bank of Eastern Oregon understands a potential letter of credit could be required in the amount of \$17.5 million dollars.²³⁹ The letter does not constitute a commitment from Bank of Eastern Oregon to issue the letter of credit.

To address the applicant's financial assurance obligations and ensure the adequacy of the bond or letter of credit, the Council adopts the following conditions:

Retirement and Financial Assurance Condition 4: Before beginning construction of the facility, the certificate holder shall submit to the State of Oregon, through the Council, a bond or letter of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-hazardous condition. The certificate holder shall maintain a bond or letter of credit in effect at all times until the facility has been retired. The Council may specify

²³⁹ The pASC submitted by the applicant on December 19, 2014 includes a retirement cost estimate equal to \$17.5 million; in the department's review of the retirement cost estimate included in the pASC, revisions were requested resulting in the applicant's higher estimate of \$18.1 million. Retirement and Financial Assurance Conditions 4 and 5 ensure that the bond or letter of credit accurately reflects the retirement estimate for the facility.

1 different amounts for the bond or letter of credit during construction and during operation
2 of the facility. [Mandatory Condition OAR 345-027-0020(8)]
3

4 **Retirement and Financial Assurance Condition 5:** Before beginning construction of the
5 facility, the certificate holder shall submit to the State of Oregon, through the Council, a
6 bond or letter of credit naming the State of Oregon, acting by and through the Council, as
7 beneficiary or payee. The initial bond or letter of credit amount for the facility is \$18.1
8 million dollars (Q1 2015 dollars), to be adjusted to the date of issuance, and adjusted on an
9 annual basis thereafter, as described in sub-paragraph (b) of this condition:
10

11 (a) The certificate holder may adjust the amount of the initial bond or letter of credit
12 based on the final design configuration of the facility. Any revision to the restoration
13 costs should be adjusted to the date of issuance as described in (b) and subject to
14 review and approval by the Council.
15

16 (b) The certificate holder shall adjust the amount of the bond or letter of credit using
17 the following calculation:
18

19 (1) Adjust the amount of the bond or letter of credit (expressed in Q1 2015 dollars)
20 to present value, using the U.S. Gross Domestic Product Implicit Price Deflator,
21 Chain-Weight, as published in the Oregon Department of Administrative Services'
22 "Oregon Economic and Revenue Forecast" or by any successor agency and using the
23 first quarter 2015 index value and the quarterly index value for the date of issuance
24 of the new bond or letter of credit. If at any time the index is no longer published,
25 the Council shall select a comparable calculation to adjust first quarter 2015 dollars
26 to present value.
27

28 (2) Round the result total to the nearest \$1,000 to determine the financial assurance
29 amount.
30

31 (c) The certificate holder shall use an issuer of the bond or letter of credit approved by
32 the Council.
33

34 (d) The certificate holder shall use a form of bond or letter of credit approved by the
35 Council. The certificate holder shall describe the status of the bond or letter of credit in
36 the annual report submitted to the Council under OAR 345-026-0080. The bond or letter
37 of credit shall not be subject to revocation or reduction before retirement of the facility
38 site.
39

40 Subject to compliance with Retirement and Financial Assurance Conditions 1, 2, and 3, the
41 Council finds that the facility can be restored adequately to a useful, non-hazardous condition
42 following permanent cessation of construction or operation of the proposed facility. The
43 Council finds that the December 4, 2014 letter from Bank of Eastern Oregon is sufficient
44 evidence of a reasonable likelihood that the applicant could obtain the necessary financial

assurance. Subject to compliance with Retirement and Financial Assurance Conditions 4 and 5, the Council finds that the certificate holder has a reasonable likelihood of obtaining a bond or letter of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-hazardous condition.

Conclusions of Law

Based on the foregoing findings of fact, and based on Council's findings that the letter from Bank of Eastern Oregon dated December 4, 2014 represents a reasonable likelihood that the applicant could obtain the necessary financial assurance, and subject to compliance with the mandatory and site certificate conditions, the Council finds that the facility complies with the Council's Retirement and Financial Assurance standard.

IV.H. Fish and Wildlife Habitat [OAR 345-022-0060]

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

Findings of Fact

The Council's Fish and Wildlife Habitat standard requires the Council to find that the design, construction and operation of a facility is consistent with ODFW's habitat mitigation goals and standards, as set forth in OAR 635-415-0025. This rule creates requirements for mitigating impacts to fish and wildlife habitat, based on the functional quantity and quality of the habitat impacted as well as the nature, extent, and duration of the impact. The rule also establishes a habitat classification system based on the function and value of the habitat it would provide to a species or group of species likely to use it. There are six habitat categories, with category 1 being the most valuable, and category 6 the least valuable.

The analysis area for potential fish and wildlife habitat impacts, as defined in the project order, is the area within the site boundary and extending ½-mile from all ground-disturbing activities anticipated during construction, unless otherwise described in an ODFW- and ODOE-approved protocol.²⁴⁰ The applicant provided evidence of its compliance with the Fish and Wildlife Habitat standard in Exhibit P. Additional information and evidence of the applicant's ability to meet mitigation compliance requirements was included in Exhibit D, *Organizational Expertise* of the ASC and is discussed in Section IV.B, *Organizational Expertise* of this order.

²⁴⁰ ASC, Exhibit P, p.1.

Habitat Types and Categories in the Analysis Area

To identify the habitat types and categories within the analysis area, the applicant conducted a desktop review of available information including data from ODFW, US Fish and Wildlife Service (USFWS), and the Oregon Biodiversity Information Center (ORBIC), as well as other various sources as described in Exhibit P. The applicant reviewed these various databases and information sources for documented and predicted occurrences of rare plant and special status vertebrate wildlife species; the applicant then used this information to prepare for field surveys used to validate habitat types and categories, as well as to establish information related to state sensitive species.

Additionally, the applicant used the database review to identify potential threatened and endangered species that may be present in the analysis area.²⁴¹ Threatened and endangered species are discussed in section IV.I under the *Threatened and Endangered Species* standard. The applicant explained that for golden and bald eagles, the records search was based on documented and predicted occurrences within a 10-mile buffer of the site boundary. For rare plants and all other special status vertebrate wildlife species, the information search was based on the area within and extending 5-miles of the site boundary. As described in Exhibit P, Attachment P-1 Ecological Investigations Report, the applicant's biologists conducted various field surveys of the analysis area in 2011, 2012, and 2013, and with additional eagle nest monitoring in 2014.

The applicant identified five specific habitat types in the analysis area. The various habitat types are classified into habitat categories pursuant to the ODFW fish and wildlife habitat mitigation rule (OAR 635-415-0025). Habitat categories are assigned based on factors including habitat quality, uniqueness, irreplaceability, extent, importance to specific species, and other factors. As described in Exhibit P, the identified habitat and habitat subtypes types within the analysis area are:

- Grassland: Exotic Annual and Native Perennial (habitat categories 1-4)
- Shrub-steppe: Basin Big Sagebrush and Rabbitbrush/Snakeweed (habitat categories 1-4)
- Escarpment: Exposed Rock (habitat category 2)
- Developed: Revegetated or Other Planted Grassland (habitat category 3)
- Developed: Irrigated Agriculture, Dryland Wheat, and Other (habitat category 6)

Exhibit P, Section 3.1 provides additional information and description related to the specific habitat types, habitat subtypes and habitat categories within the analysis area.

Potential impacts to individual species, including state sensitive species, are addressed below. Potential impacts to state and federally listed threatened and endangered species are addressed in Section IV.A.9, *Threatened and Endangered Species* of this order.

²⁴¹ ASC, Exhibit P, Section 2.1.

Sensitive Plants and Wildlife within the Analysis Area

The applicant reviewed available existing information related to special status species that may occur within analysis area, which includes the area within and extending ½-mile from the site boundary.²⁴² As part of the information review, Oregon sensitive species as well as other non-listed species within Morrow and Umatilla counties were investigated for a larger area of 5 miles from the site boundary.²⁴³ In addition, an information review of bald and golden eagle nests was conducted for the area within and extending 10 miles of the site boundary.²⁴⁴

Based on existing information sources and historical records, the applicant assembled a list of threatened, endangered, and sensitive species with the possibility of occurring within the analysis area. This list of potential species included one terrestrial mammal species, eight bat species, 13 bird species, one lizard, one turtle, and three fish species. The applicant also reviewed the ORBIC database for occurrences of sensitive and listed species in the analysis area. The results of that database search returned records of one mammal (white-tailed jackrabbit), six bird species (ferruginous hawk, Swainson's hawk, burrowing owl, long-billed curlew, grasshopper sparrow, and blackthroated sparrow), one turtle (painted turtle), and one fish species (Steelhead; Middle Columbia River summer run). ORBIC results did not include any records of listed or sensitive bat species or listed or sensitive plant species within 5 miles of the analysis area. ORBIC reported one record of a bald eagle nest within 10 miles of the site boundary. In addition, the applicant's biological consultant was familiar with at least three golden eagle breeding territories within 10 miles of the site boundary.²⁴⁵

After performing a desktop review of existing information, the applicant conducted field surveys to confirm habitat types and occurrence or use of the study area by listed and sensitive species. Results of the field surveys are described in detail in ASC Exhibit P, Attachment P-1, Ecological Investigations Report.

Mammals

The applicant conducted special-status wildlife field surveys from March through early June, 2011. During special-status wildlife surveys, two mammalian species with special status and evidence of such species were detected including Washington ground squirrel and white-tailed jackrabbit. Washington ground squirrel is a state Threatened species, and is addressed in Section IV.I, *Threatened and Endangered Species* of this order; white-tailed jackrabbit is a state Sensitive-Vulnerable species and is addressed below. The applicant asserts that aquatic habitat would be avoided during facility construction and operation and therefore did not conduct surveys for aquatic habitat.²⁴⁶

²⁴² ASC, Exhibit P, p. 4.

²⁴³ ASC, Exhibit P, p. 4.

²⁴⁴ ASC, Exhibit P, p. 4.

²⁴⁵ ASC, Exhibit P, p. 22.

²⁴⁶ ASC, Exhibit P, pp. 12 and 25.

Bat Species

As noted above, while the ORBIC database search did not return any records of listed or sensitive bats, the applicant nevertheless conducted field surveys for bat species in the study area. The applicant conducted a ground level, habitat-based bat species inventory between the first week of July and the last week of October, 2011, representing a time period when bat fatality due to turbine collision is known to occur within the Pacific Northwest. The inventory utilized acoustic monitoring equipment to investigate bat species diversity within the site boundary.

As explained in Exhibit P, acoustic monitoring surveys detected eight bat species. These species included the two special status species known to be at risk of collision with turbines, hoary bat (state sensitive-vulnerable) and silver-haired bat (state sensitive-vulnerable). Other detected state sensitive species include California myotis (state sensitive-vulnerable) and long-legged myotis (state sensitive-vulnerable). The silver-haired bat was detected at 11 of the 12 study locations; small-footed myotis was detected at nine of the 12 acoustic monitoring site; and, Hoary bat was found at six of the detector locations. In addition, California myotis, long-eared myotis, and long-legged myotis were each detected at a single site, near a riparian area along the intraconnection transmission corridor.²⁴⁷

Avian Species

The applicant conducted 1,229 20-minute avian use surveys between January 30, 2011 and February 11, 2012 (823 surveys associated with the Wheatridge West turbine group and 406 surveys associated with the Wheatridge East turbine group), including 443 winter surveys, 262 spring surveys, 261 summer surveys, and 263 fall surveys.²⁴⁸ During the avian use surveys, the applicant detected eight sensitive bird species, and both bald and golden eagle (though, neither eagle species is considered State Sensitive by ODFW nor listed as threatened or endangered by ODFW). Sensitive species detected include:

- Swainson's hawk (Sensitive-Vulnerable)
- Ferruginous hawk (Sensitive-Critical)
- Peregrine falcon (Sensitive-Vulnerable)
- Greater Sandhill crane (Sensitive-Vulnerable)
- Long-billed curlew (Sensitive-Vulnerable)
- Burrowing owl (Sensitive-Critical)
- Loggerhead shrike (Sensitive-Vulnerable), and
- Grasshopper sparrow (Sensitive-Vulnerable)

The applicant conducted aerial raptor nest surveys for all components of the proposed facility, encompassing an area of approximately 237.5 square miles during the 2011 raptor breeding

²⁴⁷ ASC, Exhibit P, pp. 13 and 26.

²⁴⁸ ASC, Exhibit P, p. 9.

season. For the Wheatridge West turbine group and the intraconnection transmission corridor, supplemental surveys were conducted in 2012 and 2013 to locate raptor nests on and within two miles of some small areas that had been added to the proposed facility site boundary subsequent to the 2011 survey. The aerial raptor surveys identified 41 active raptor nests (and 16 common raven nests), including nests of the following species:

- Swainson's hawk – 26 nests
- Ferruginous hawk – 4 nests
- Red-tailed hawk – 7 nests
- Prairie falcon – 1 nest
- Great horned owl – 2 nest
- Barn owl – 1 nest

The applicant conducted three aerial surveys during March, May and June, 2011 for eagle and raptor nests, encompassing the area within and extending 10-miles from the site boundary. The area surveyed included all potential nesting habitat, such as cliffs, large trees, and transmission towers. Results of the aerial surveys identified one unoccupied and seven occupied golden eagle territories, five active nests, four successful breeding attempts, and seven fledged young. The applicant states that the single historical bald eagle nest located in Umatilla County in the ORBIC records was found to be no longer present.

The applicant conducted aerial and ground monitoring for eagle nests identified during the 2011 aerial surveys during 2012, 2013, and 2014, as described in the ASC. The applicant has stated that it has continued eagle and raptor nest monitoring in 2015 and 2016, though as of the time of publishing this proposed order, 2015 and 2016 survey results have not been provided to the department. As explained in Exhibit P, the 2012 eagle nest monitoring yielded six occupied golden eagle territories, four active nests, two successful breeding attempts, and three fledged young. The 2013 eagle nest monitoring yielded four occupied golden eagle territories, two active nests, one successful breeding attempt, and one fledged young. The 2014 eagle nest monitoring yielded five occupied golden eagle territories, three active nests, three successful breeding attempts, and three fledged young.²⁴⁹

Rare Plants

As described in Exhibit P, the applicant conducted rare plant surveys with botanists familiar with local flora; most surveys occurred in 2011, but supplemental surveys occurred in 2012 and 2013. The applicant explains that a single special status vascular plant species—Laurent's milkvetch (*Astragalus collinus* var. *laurentii*)—was found during special status plant surveys. Impacts to this plant are addressed in Exhibit Q of the ASC and Section IV.I, *Threatened and Endangered Species* of this order.

Construction and Operational Impacts to Habitat

²⁴⁹ ASC, Exhibit P, pp. 8-12 and 22-25.

Construction and operation of the facility would result in permanent and temporary loss of wildlife habitat. Exhibit P explains that the proposed facility would cause temporary and permanent impacts to habitat classified as categories 2, 3, 4, and 6. The applicant stated that no category 1 or 5 habitat would be impacted by the proposed facility.²⁵⁰ Table FW-1, *Potential Temporary and Permanent Impacts by Habitat Category and Type*, recreated from Table P-4, Exhibit P, Section 5.1, described the anticipated impacts by habitat type, category, and acreage. Table FW-1 delineates habitat impacts by the west turbine group, the east turbine group, and the intraconnection corridor. The table also shows expected habitat impacts for two alternative turbine layouts (“maximum” and “minimum” layouts) and two alternative intraconnection lines (a longer option and shorter option).

The applicant noted in a footnote to Table P-4 (ASC Exhibit P) that the temporary facilities include access roads, construction areas, access for overhead line construction, installation sites for underground collector cables, and equipment laydown areas for individual turbines, entire strings of turbines, and laydown areas for in-transit towers, cranes, and miscellaneous construction equipment. Permanent facilities include turbine pads and towers, substation, meteorological towers, Operations and Maintenance facility or facilities, and permanent access roads. However, in Exhibit B, Section 3.8, the applicant stated that some construction laydown yards may be maintained as construction laydown yards if requested by a landowner. In this situation, the construction laydown yards would not be temporary impacts but permanent impacts, and must be categorized as such, and included in the mitigation assessment and requirements.

Table FW-1: Potential Temporary and Permanent Impacts by Habitat Category and Type

Wheatridge West Turbine Group				
Category and Habitat Description	Impacts (acres)			
	Maximum Layout		Minimum Layout	
	Temporary	Permanent	Temporary	Permanent
Category 2				
Developed – Revegetated/Other Planted Grassland	106.9	17.0	100.8	14.4
Grassland – Exotic Annual	13.3	1.7	7.8	0.8
Grassland – Native Perennial	32.3	5.5	34.9	4.7
Shrub-steppe – Basin Big Sagebrush	2.5	0.8	2.4	0.8
Total	155.5	24.9	146.4	20.7
Category 3				
Developed – Revegetated/Other Planted Grassland	60.7	8.0	66.5	7.7
Grassland – Native Perennial	28.7	5.5	25.8	4.6
Shrub-steppe – Rabbitbrush/Snakeweed	2.1	0.0	1.5	0.0

²⁵⁰ ASC, Exhibit P, Attachment P-1.

Table FW-1: Potential Temporary and Permanent Impacts by Habitat Category and Type

Total	91.5	13.5	93.9	12.3
Category 4				
Grassland – Exotic Annual	11.6	1.8	11.3	1.7
Total	11.6	1.8	11.3	1.7
Subtotal for Cat. 2, 3, 4	258.6	40.3	251.6	34.7
Category 6				
Developed – Dryland Wheat	533.3	88.3	481.9	73.6
Developed – Other	1.0	0.3	0.9	0.3
Total	534.3	88.6	482.8	73.8
Total for all Categories	792.9	128.9	734.4	108.5
Wheatridge East Turbine Group				
Category and Habitat Description	Impacts (acres)			
	Maximum Layout		Minimum Layout	
	Temporary	Permanent	Temporary	Permanent
Category 2				
Grassland – Exotic Annual	17.2	3.3	17.7	3.2
Grassland – Native Perennial	19.5	2.6	20.2	2.5
Total	36.7	6.0	37.9	5.7
Category 3				
Grassland – Native Perennial	14.4	1.9	14.3	1.8
Shrub-steppe – Rabbitbrush/Snakeweed	12.1	1.9	12.7	1.6
Total	26.4	3.8	27.0	3.4
Category 4				
Grassland – Exotic Annual	7.8	1.3	6.6	1.0
Grassland – Native Perennial	1.2	0.2	1.5	0.3
Shrub-steppe – Rabbitbrush/Snakeweed	2.7	0.3	1.4	0.3
Total	11.7	1.8	9.4	1.6
Subtotal for Cat. 2, 3, 4	74.8	11.6	74.3	10.7
Category 6				
Developed – Dryland Wheat	185.7	29.9	190.9	27.7
Total	185.7	29.9	190.9	27.7
Total for all Categories	260.5	41.5	265.2	38.4
Intraconnection Corridor				
Category and Habitat Description	Impacts (acres)			
	Longer Option		Shorter Option	
	Temporary	Permanent	Temporary	Permanent
Category 2				

Table FW-1: Potential Temporary and Permanent Impacts by Habitat Category and Type

Developed – Revegetated/Other Planted Grassland	11.5	0.1	11.5	0.1
Grassland – Exotic Annual	3.0	0.0	3.0	0.0
Grassland – Native Perennial	36.8	0.2	36.8	0.2
Shrub-steppe – Basin Big Sagebrush	0.7	0.0	0.7	0.0
Shrub-steppe – Rabbitbrush/Snakeweed	14.7	0.1	14.2	0.1
Total	66.7	0.4	66.2	0.4
Category 3				
Developed – Revegetated/Other Planted Grassland	7.2	0.1	3.2	0.0
Grassland – Native Perennial	6.7	0.0	6.7	0.1
Shrub-steppe – Basin Big Sagebrush	0.4	0.0	0.0	0.0
Shrub-steppe – Rabbitbrush/Snakeweed	2.5	0.0	1.0	0.0
Total	16.8	0.1	10.9	0.1
Category 4				
Grassland – Exotic Annual	2.5	0.0	1.9	0.0
Total	2.5	0.0	1.9	0.0
Subtotal for Cat. 2, 3, 4	86.0	0.5	79.0	0.5
Category 6				
Developed – Dryland Wheat	56.3	0.4	33.4	0.3
Developed – Irrigated Agriculture	1.0	0.0	1.0	0.0
Developed – Other	0.6	0.0	0.3	0.0
Total	58.0	0.4	34.7	0.2
Total for all Categories	144.0	0.9²⁵¹	113.7	0.7

As shown in Table FW-1, the applicant calculated the maximum impact from permanent loss of habitat in Categories 2 through 4 to be 52.3 acres for all facility components (east and west turbine groups and the intraconnection corridor). The maximum impact of the facility from permanent loss within Category 6 habitat was estimated at 118.9 acres. Altogether, the maximum permanent footprint of proposed facility components would occupy 171.2 acres of

²⁵¹ Table FW-1 is replicated here from the ASC, Exhibit P. The applicant has not provided details regarding its habitat impact calculation methodology, such as the expected impacted acreage per transmission structure. In Exhibit B, the applicant describes that the intraconnection transmission line design has not yet been finalized; the final design could include one or two 230 kV overhead transmission lines, and the design could be monopole or wood H-frame. Structures could be spaced between 400 – 800 feet apart. As part of Fish and Wildlife Condition 1, the applicant must provide an updated Table FW-1, to be based on the final facility engineering design. The applicant must provide its impact assessment methodology as part of this condition, including assumed temporary and permanent impact acreage for each transmission structure, wind turbine, access road, and all other proposed facility components.

1 habitat in all categories, of which approximately 60 percent would occur in Category 6 habitat
2 areas.

3
4 Also shown on Table FW-1, the applicant estimated that a maximum of 419.4 acres of habitat in
5 Categories 2 through 4 would be temporarily lost during facility construction. The maximum
6 impact of the facility from temporary loss within Category 6 habitat was estimated at 778.0
7 acres. Altogether, the maximum temporary habitat loss, for habitat in all categories, during
8 proposed facility construction would be 1,197.4 acres, of which approximately 65 percent would
9 occur in Category 6 habitat areas.

10
11 As explained in Section IV.A.1 *General Standard of Review* of this order, in order to reduce
12 potential impacts to wildlife habitat, Mandatory Condition 6 would require that, following
13 facility construction, the applicant must restore vegetation to the extent practicable and
14 landscape all areas disturbed by construction in a manner compatible with the surrounding and
15 proposed use. The applicant has included a draft concept of a revegetation plan as Exhibit P,
16 Attachment P-2. This concept is included as Attachment C to this order. Completion and
17 implementation of the revegetation plan is further discussed in the *Mitigation and Monitoring*
18 section below.

19
20 In addition, in order to ensure that habitat impacts are appropriately categorized and that
21 associated mitigation is adequate to meet the Fish and Wildlife Standard, the Council imposes
22 the following condition requiring the applicant to conduct a pre-construction wildlife habitat
23 assessment survey and submit an associated report to the department and ODFW.²⁵² This
24 condition requires that the pre-construction survey report include an updated Table FW-1,
25 indicating the acres to be temporarily and permanently impacted by the facility by habitat
26 category and type and sub-type. The survey report must include updated maps showing all
27 facility components and locations, including locations of access roads, and the habitat
28 categories and types in the analysis area. Maps must be similar to Figures 3a-3c and 4a-4c as
29 included in Exhibit P, Attachment P-1.

30
31 **Fish and Wildlife Condition 1:** Prior to final site design and facility layout, the certificate
32 holder shall conduct a field-based habitat survey to confirm the habitat categories of all
33 areas that will be affected by facility components, as well as the locations of any
34 sensitive resources such as active raptor and other bird nests. The survey shall be
35 planned in consultation with the department and ODFW, and survey protocols shall be
36 confirmed with the department and ODFW. Following completion of the field survey,
37 and final layout design and engineering, the certificate holder shall provide the
38 department and ODFW a report containing the results of the survey, showing expected
39 final location of all facility components, the habitat categories of all areas that will be
40 affected by facility components, and the locations of any sensitive resources.

²⁵² In the proposed order, the department recommended the Council adopt administrative amendments to recommended Fish and Wildlife Condition 1 clarifying that the certificate holder, not the applicant, submit the required information.

1
2 The report shall also include an updated version of Table FW-1 Potential Temporary and
3 Permanent Impacts by Habitat Category and Type of the final order, showing the acres
4 of expected temporary and permanent impacts to each habitat category, type, and sub-
5 type. The pre-construction survey shall be used to complete final design, facility layout,
6 and micro-siting of facility components. As part of the report, the certificate holder shall
7 include its impact assessment methodology and calculations, including assumed
8 temporary and permanent impact acreage for each transmission structure, wind
9 turbine, access road, and all other facility components. If construction laydown yards
10 are to be retained post construction, due to a landowner request or otherwise, the
11 construction laydown yards must be calculated as permanent impacts, not temporary.

12
13 In classifying the affected habitat into habitat categories, the certificate holder shall
14 consult with the department and ODFW. The certificate holder shall not begin
15 construction of the facility until the habitat assessment, categorization, and impact
16 assessment has been approved by the department, in consultation with ODFW. The
17 certificate holder shall not construct any facility components within areas of Category 1
18 habitat and shall avoid temporary disturbance of Category 1 habitat.

19
20 In order to mitigate for impacts to wildlife habitat, the applicant proposed to implement a
21 Habitat Mitigation Plan (HMP). The applicant's proposed draft HMP is included as Attachment B
22 to this order, and is further addressed below. The pre-construction survey results would inform
23 the HMP and confirm that appropriate mitigation is provided.

24 25 *State Sensitive Wildlife*

26
27 The applicant's field surveys identified multiple state sensitive wildlife species in the analysis
28 area. Most of these species are bats, which are further discussed below. The white-tailed
29 jackrabbit was also identified during field surveys. Signs of Washington ground squirrel, an
30 ODFW Threatened species, were also detected during field surveys; potential facility-related
31 impacts to the Washington ground squirrel are discussed in the Threatened and Endangered
32 Species Standard section of this final order.²⁵³

33
34 As explained in Exhibit P, impacts from facility construction and operation could result in loss of
35 suitable breeding and foraging habitat for the white-tailed jackrabbit. However, based on
36 observations at other operational wind farms within the area, the applicant asserted that this
37 species does not seem to experience permanent displacement due to wind farm construction.²⁵⁴
38 ODFW did not comment on this issue. To reduce the potential for direct mortality from vehicle
39 collision, the applicant has proposed a speed limit for all vehicles on proposed facility roads. In a
40 comment letter, ODFW recommended that a 20 mph speed limit be imposed on roads within

²⁵³ ASC, Exhibit P, p. 25.

²⁵⁴ ASC, Exhibit P, p. 35.

the project area to reduce potential impacts to wildlife, particularly white-tailed jackrabbit and mule deer.²⁵⁵ The draft proposed order recommended, based upon ODFW's comments, that the Council impose a 20 mph speed limit on private and public roads within the project area, unless a higher speed limit was necessary for safe driving speed on public roads.²⁵⁶ Morrow County commented on the record of the public hearing, questioning the EFSC jurisdiction to restrict speed limits on public roads. In response, the Council adopts the following condition, as amended in the proposed order:

Fish and Wildlife Condition 2: During construction and operation, the certificate holder shall impose a 20 mile per hour speed limit on new and improved private access roads, which have been approved as a related and supporting facility to the energy facility. . The site boundary would be located within designated mule deer winter range. Mule deer winter range is categorized by ODFW as habitat Category 2. Category 2 habitat is considered "essential habitat for a fish or wildlife species, population, or unique assemblage of species and is limited either on a physiographic province or site-specific basis depending on the individual species, population or unique assemblage."²⁵⁷ Mule deer winter range is shown on Exhibit P, Figure P-1.

As explained in ASC Exhibit P, impacts from facility construction and operation could include loss of suitable mule deer habitat. To avoid temporary displacement of wintering deer and impacts to this Category 2 habitat, the applicant proposes to restrict construction of proposed facility components during the winter season (December 1 through March 31) within areas designated mule deer winter range to the extent feasible. The applicant proposed to implement additional mitigation, such as habitat improvement (for example, revegetating grasslands), weed control, or spring development, during periods where construction activities cannot be limited during winter season.²⁵⁸

In an agency comment letter on the complete ASC, ODFW recommended that the Wildlife Monitoring and Mitigation Plan include avoidance measures, such as limiting proposed facility construction within the mule deer winter range boundary to non-winter periods (i.e. limiting construction during December through March) to reduce the displacement impacts of the construction activities to wintering mule deer.²⁵⁹ On the record of the public hearing, Steve Cherry/ODFW clarified that ODFW recommends allowance of approved mitigation for unavoidable impacts in circumstances where avoidance of Category 2 mule deer winter range

²⁵⁵ WRWAPPDoc31, Agency Comment ODFW, 08-20-2015. In a comment letter, ODFW recommended that a 20 mile an hour speed limit be imposed on the project area especially in the vicinity of any WGS areas.

²⁵⁶ In the draft proposed order, recommended Fish and Wildlife Condition 2 stated, "During construction, the certificate holder shall impose a 20 mile per hour speed limit on private and public roads, unless higher speed limit is necessary for safe driving speed on public roads, within the project area.

²⁵⁷ OAR 635-415-0025(2).

²⁵⁸ ASC, Exhibit P, p. 36.

²⁵⁹ WRWAPPDoc31, Agency Comment ODFW, 08-20-2015.

1 during winter is not feasible.²⁶⁰ On the record of the June 6, 2016 public hearing, on behalf of
2 the applicant, David Petersen acknowledged ODFW's comments and willingness to discuss
3 available mitigation options for unavoidable impacts to mule deer winter range; however, the
4 applicant did not request modification of the recommended condition.

5
6 The Council's Fish and Wildlife Habitat standard and ODFW's Fish and Wildlife Mitigation Policy
7 requires that, as the first step in the mitigation hierarchy for Category 2 habitat, impacts be
8 avoided through alternatives to the proposed development action.²⁶¹ Restricting construction
9 activities in mule deer winter habitat would provide avoidance, protection and reduction of
10 impacts to this Category 2 habitat. The Council adopts the following condition, as presented in
11 the draft proposed order without modification, requiring the applicant to restrict all
12 construction in mule deer winter range during winter, defined as December 1 to March 31, to
13 ensure compliance with the Council's Fish and Wildlife Habitat standard and to avoid impacts to
14 mule deer winter range Category 2 habitat,.

15
16 **Fish and Wildlife Condition 3:** No construction shall occur in mule deer winter range
17 during winter, defined as December 1 to March 31. Mule deer winter range is based on
18 data to be provided by ODFW at the time of construction.

19
20 On the record of the June 6, 2016 public hearing, on behalf of Morrow County Court, the
21 Morrow County Planning department requested removal of recommended Fish and Wildlife
22 Condition 3 because the ODOE and ODFW assessment of the facility's impact to mule deer
23 winter range, upon which the condition is based was conducted using ODFW, and not Morrow
24 County, big game winter range habitat suitability assessment mapping. Based on Morrow
25 County habitat maps, Morrow County explained that the facility would not impact any suitable
26 mule deer habitat and therefore the condition would be unnecessary. Morrow County asserts
27 that ODFW, by using big game winter range mapping that has not been adopted by Morrow
28 County, is implementing rules and restrictions, "that may not be compatible with adopted
29 regulations of a local jurisdiction." Therefore, Morrow County asserted, by using the ODFW big
30 game winter range mapping, the department, and by extension the Council, were not observing
31 the requirements for state and local government coordination pursuant to ORS 197.180.

32
33 The department and ODFW have recommended the condition for purposes of compliance with
34 the Council's Fish and Wildlife Habitat standard which in turn requires compliance with the
35 ODFW Fish and Wildlife Habitat rules. Pursuant to ORS 197.180(13) rules, plans, or programs
36 affecting land use are not compatible with an acknowledged land use plan if the state agency
37 takes or approves an action that is not allowed in an acknowledged land use plan. However, as
38 stated in statute, a state agency may apply rules to further restrict an action of an applicant if
39 the state agency applies those rules to the uses planned for in the acknowledged
40 comprehensive plan.²⁶² Limiting the construction timing for uses allowed outright and

²⁶⁰ WRWAPPDoc84 DPO Agency Comment ODFW_2016-06-01.

²⁶¹ OAR 635-415-0025(2)(b)(A).

²⁶² ORS 197.180(13)

1 conditionally in the county's EFU zone to mitigate and protect habitat in order to comply with
2 the Council's Fish and Wildlife Habitat standard, is not prohibited in Morrow County's
3 acknowledged land use plan.

4
5 ODOE relies upon the knowledge, experience, and input of ODFW when assessing a proposed
6 facility's impact to fish and wildlife habitat under the Fish and Wildlife Habitat standard,
7 including ODFW's knowledge of habitat types, species use of an area, and habitat
8 categorization. In this case, ODFW provided the department and the applicant with its big game
9 winter range habitat suitability mapping for the facility analysis area. The applicant used this
10 information in developing ASC Exhibit P, and in its assessing compliance with the Council's Fish
11 and Wildlife Habitat standard. Moreover, because the Council implements ODFW's fish and
12 wildlife habitat mitigation policy and associated rules through the Council's Fish and Wildlife
13 Habitat standard, ODFW has the opportunity to recommend appropriate habitat mitigation to
14 comply with the Council standard and ODFW rules. Therefore, because the applicant's analysis
15 of potential habitat impacts relied upon ODFW's big game winter range maps, the Council
16 imposes Fish and Wildlife Habitat Condition 3 as presented in the draft proposed order.

17
18 In addition to avoiding impacts during the winter season as required per Fish and Wildlife
19 Condition 3, the applicant is required to provide compensatory mitigation for impacts to mule
20 deer habitat. The applicant's proposed mitigation plan is described in Exhibit P and the draft
21 HMP is included as Attachment B to this order.

22 23 Bat Species

24
25 As described in Exhibit P, field surveys identified eight bat species in the analysis area. Of these
26 species, four are state sensitive: hoary bat, silver-haired bat, California myotis, and long-legged
27 myotis. According to the applicant, two additional species were identified that are federal
28 species of concern but not state sensitive, the small-footed myotis and long-eared myotis.²⁶³

29
30 The applicant's analysis indicated that the hoary bat and silvery-haired bat may be impacted by
31 the facility through turbine collision, which is most likely to occur during the migration period
32 (August through October). As discussed in Exhibit P, while the analysis area does not contain
33 suitable breeding habitat for these two species, both are likely at moderate to high risk of
34 fatality from collision with the facility.²⁶⁴

35
36 The applicant's analysis indicated that the California myotis, small-footed myotis, long-eared
37 myotis, and long-legged myotis generally fly at heights below rotor level and that no fatalities
38 have been documented for these species at any Columbia Plateau wind energy facilities.
39 Therefore, the applicant asserted that these species would not be at risk of fatality from

²⁶³ ASC, Exhibit P, p. 26.

²⁶⁴ ASC, Exhibit P, p. 35.

1 construction or operation of the facility.²⁶⁵ ODFW did not comment on this assessment and
2 conclusion.

3
4 As presented in the draft Wildlife Monitoring and Mitigation Plan (WMMP), the applicant
5 proposed to conduct post-construction bat fatality monitoring to estimate whether bat
6 fatalities due to facility operation are at or below the threshold of concern. These thresholds of
7 concern have been used for multiple other EFSC-approved wind facilities in the Columbia
8 Plateau. ODFW did not comment on the proposed threshold of concern for bat or avian species,
9 or indicate that the proposed facility would require any revisions to that threshold.²⁶⁶ As
10 described in the draft WMMP, the Council may require additional mitigation if the fatality rate
11 for bat species exceeds a level of concern.

12 To implement the monitoring program and ensure that appropriate mitigation is provided in
13 accordance with the impact, the Council adopts the following condition, requiring the applicant
14 to implement an approved WMMP, which would serve to minimize fatality risks to bat species
15 (as well as other avian species).

16
17 **Fish and Wildlife Condition 4:** Prior to construction, the certificate holder shall finalize
18 and implement the Wildlife Monitoring and Mitigation Plan (WMMP) provided in
19 Attachment D of this order, based on the final facility design, as approved by the
20 department in consultation with ODFW.

- 21 a. The final WMMP must be submitted and ODOE's concurrence received prior to the
22 beginning of construction. ODOE shall consult with ODFW on the final WMMP. The
23 certificate holder shall implement the requirements of the approved WMMP during
24 all phases of construction and operation of the facility.
- 25 b. The WMMP may be amended from time to time by agreement of the certificate
26 holder and the Oregon Energy Facility Siting Council ("Council"). Such amendments
27 may be made without amendment of the site certificate. The Council authorizes the
28 Department to agree to amendments to this plan. The Department shall notify the
29 Council of all amendments, and the Council retains the authority to approve, reject,
30 or modify any amendment of the WMMP agreed to by the Department.

²⁶⁵ ASC, Exhibit P, p. 36.

²⁶⁶ On the record of the June 6, 2016 public hearing, Ms. Gilbert/FGVR requested for the threshold of concern for bats be evaluated to ensure protection of bats which are becoming endangered or considered federally threatened. Ms. Gilbert/FGVR also provided materials related to white-nose syndrome occurring in bats within the western states and bat fatalities due to turbine collision. Because the Council's Fish and Wildlife Habitat standard requires the Council to find that the design, construction and operation of a facility is consistent with ODFW's habitat mitigation goals and standards, modifying the threshold of concern would be appropriately initiated by ODFW as the threshold is designed to protect species and not specific to habitat as covered under the Council's standard. Additionally, ODFW has not listed any bat species as threatened or endangered. WRWAPPDoc100 DPO Public Comment_I. Gilbert 2016-06-06.

1 The draft WMMP is included as Attachment D of this order.²⁶⁷

2
3 Avian Species

4
5 The applicant's avian surveys detected eight state sensitive bird species, including Swainson's
6 hawk, ferruginous hawk, peregrine falcon, greater Sandhill crane, long-billed curlew, burrowing
7 owl, loggerhead shrike, and grasshopper sparrow. The applicant stated that direct fatality from
8 turbine collision is a potential concern for Swainson's hawk and ferruginous hawk. The applicant
9 stated that direct fatalities from turbine collision is a concern for golden eagle, though golden
10 eagle is not a state sensitive species nor is it an ODFW listed threatened or endangered
11 species.²⁶⁸

12
13 Species most at risk include those with the highest use of the proposed facility site and history
14 of turbine collisions at wind facilities located within the Columbia Plateau ecoregion, which
15 includes Swainson's hawk and ferruginous hawk. Swainson's hawk was the most abundant
16 avian species identified by the applicant during surveys, which identified 26 active nests. While
17 most suitable habitat is located outside of the analysis area, the applicant explains that this
18 species is at moderate to high fatality risk from the proposed facility. Ferruginous hawk
19 comprises 0.2% of the fatalities and 2.4% of the raptor fatalities recorded during scheduled
20 searches at CPE wind projects for which fatality monitoring studies have been completed and
21 made public. The applicant stated that while this represents a relatively low fatality rate, it is
22 likely reflective of the species' low density in the region and not indicative of the susceptibility
23 of individuals to turbine collision. Therefore, the applicant concluded that, construction and
24 operation of the facility was assumed by the applicant to result in a low to moderate risk of
25 fatality for this species.²⁶⁹

26
27 The applicant stated that fatalities of the greater Sandhill crane, long-billed curlew, burrowing
28 owl, loggerhead shrike, and grasshopper sparrow from turbine collision are rare or have never

²⁶⁷ On the record of the public hearing, Steve Cherry/ODFW requested the following mitigation options be included in the draft WMMP to address the root cause of turbine-related avian fatalities: 1) shutdown of high-risk turbines either on demand or through use of temporary, seasonal/diurnal restrictions, and 2) raising the cut-in speed of turbine blades. On the record of the June 6, 2016 public hearing, on behalf of the applicant, D. Petersen stated that the draft concepts of the WMMP were developed in 2014 in agreement with ODFW with no previous mention of the above-referenced mitigation options and that curtailment is not a reasonable imposition. As presented in Attachment D (draft WMMP) of the final order, in response to a threshold of concern exceedance, the certificate holder shall implement mitigation as approved by the department that is designed to benefit the affected species group. Mitigation may include, but is not limited to, measures such as protection of nesting habitat and enhancement of a protected tract by weed removal and control. While each facility is evaluated based on its own facts, the department has not previously recommended seasonal/diurnal operating restrictions or raising the cut-in speed as appropriate measures to mitigate for a threshold of concern exceedance and would not consider these measures necessary to satisfy the Council's standard. WRWAPPDoc84 Agency Comment ODFW (S. Cherry) 2016-06-01; WRWAPPDoc85 Public Comment (Applicant) D. Petersen 2016-06-06.

²⁶⁸ ASC Exhibit P, p. 30.

²⁶⁹ ASC Exhibit P, pp. 30-31)

1 been found at other wind facilities within the Columbia Plateau ecoregion.²⁷⁰ Moreover, the
2 applicant concluded that there would not be significant population consequences for peregrine
3 falcon, greater Sandhill crane loggerhead shrike and grasshopper sparrow based on low or no
4 documented fatality at other wind facilities within the Columbia Plateau ecoregion, as well as
5 siting of facility turbines away from suitable habitat and limited to no suitable habitat within
6 the analysis area.²⁷¹ Additionally, condition Fish and Wildlife Condition 1 requires that the
7 applicant conduct a pre-construction survey of sensitive resources such as bird nests and
8 habitat, and to utilize these pre-construction survey results during final turbine micro-siting. This
9 would further reduce potential facility impacts to avian species.

10
11 The applicant's analysis indicated that facility construction and operation could result in loss of
12 suitable habitat, disturbance of active breeding attempts during construction, and possible
13 displacement from suitable breeding and foraging habitat for burrowing owl species. Similarly,
14 the applicant's analysis indicated that long-billed curlews could experience adverse impacts
15 from facility construction due to nest abandonment or disruption of brood-rearing if
16 construction occurs in proximity to the species during the breeding season. The applicant
17 determined that despite these risks, the facility was expected to have a low impact to both
18 burrowing owl and long-billed curlews based on studies from other Columbia Plateau ecoregion
19 wind facilities.²⁷² To reduce and mitigate the impacts, the applicant's proposed WMMP
20 (Attachment P-4 to the Exhibit P) includes requirements and protocols for monitoring of facility
21 impacts on avian species groups. The WMMP is required to be implemented through condition
22 Fish and Wildlife Condition 4.

23
24 The applicant proposed to conduct pre-construction surveys to identify changes in the location
25 of state sensitive species, particularly nests of Swainson's hawk, ferruginous hawk, and
26 burrowing owl (to avoid disturbance during nesting) that were identified during 2011 surveys.
27 In an agency comment letter, ODFW recommended that a raptor nest survey be completed
28 prior to construction and that the survey results help determine the final micro-siting of the
29 proposed facility.²⁷³ Fish and Wildlife Condition 1 would require a pre-construction survey, and
30 the results of the survey used to finalize micro-siting of the facility components, as
31 recommended by ODFW. The applicant also proposed in its WMMP to conduct long-term
32 raptor nest surveys at 5-year intervals for the life of the facility; implementation of a finalized
33 WMMP is required by Fish and Wildlife Condition 4.²⁷⁴

²⁷⁰ ASC Exhibit P, Attachment P-1, Table 11, is a consolidated list of the observed species composition and number of avian fatalities found at Columbia Plateau Ecoregion wind projects where fatality monitoring has been completed. The studied wind facilities are shown as a footnote to this table.

²⁷¹ ASC Exhibit P, pp. 33-34.

²⁷² ASC Exhibit P, pp. 33-34.

²⁷³ WRWAPPDoc31, Agency Comment ODFW, 08-20-2015.

²⁷⁴ WRWAPPDoc31, Agency Comment ODFW, 08-20-2015. In a comment letter, ODFW recommended that that long term raptor nest monitoring occur at five year intervals after the short term monitoring is completed on years one and four, and on years divisible by five (i.e. 2025, 2030, 2035, etc.) to try to develop a consistent survey period across the entire Basin.

If construction activities are scheduled to occur during the sensitive breeding season for raptors, construction noise and human activity near active nests could adversely affect raptor nesting or fledging success. The applicant proposed to impose seasonal restrictions on construction activities, based on ODFW breeding season and distance standards for the Columbia Plateau ecoregion.²⁷⁵ To implement this measure, the Council adopts the following condition, which requires the applicant to conform to the seasonal construction restrictions and nest buffers.

Fish and Wildlife Condition 5: During construction within the time periods listed below, the certificate holder shall implement buffer zones around nest sites of the species listed below. No ground-disturbing activities within the buffer zone shall occur during the seasonal restrictions. The construction workforce and facility employees must be provided maps with the locations of the buffer zones and be instructed to avoid ground-disturbing activity within the buffer zone during construction activities.

Nesting Species	Buffer Size (Radius Around Nest Site):	Avoidance Buffers in Effect from:
Western burrowing owl	0.25 mile	April 1 to August 15
Ferruginous hawk	0.25 mile	March 15 to August 15
Swainson's hawk	0.25 mile	April 1 to August 15

The applicant stated in Exhibit P that it is incorporating additional design features and protective measures to reduce potential impacts to for avian species. The applicant stated that it is utilizing existing roads as much as possible, burying collector lines to the extent feasible, constructing overhead collector and transmission lines in accordance with the latest Avian Power Line Interaction Committee (APLIC) design standards to reduce the risk of electrocution to raptors in particular, and installing unguyed meteorological towers to reduce risk of avian collision.²⁷⁶ Utilizing existing roads as much as possible and undergrounding collector lines as possible is required by the Council's Cumulative Effects Standards for Wind Energy Facilities (OAR 345-024-0015) and is further discussed in Section IV.P of this order. In order to implement the other applicant-proposed measures, the Council adopts the following condition, requiring the applicant construct overhead collector and transmission lines in accordance with the latest APLIC standards and only install unguyed meteorological towers.

Fish and Wildlife Condition 6: The certificate holder shall construct all overhead collector and transmission intraconnection lines in accordance with the latest Avian Power Line Interaction Committee design standards, and shall only install permanent meteorological towers that are unguyed.

²⁷⁵ ASC Exhibit P, p. 39.

²⁷⁶ ASC Exhibit P, p. 38.

Mitigation and Monitoring

The Council has previously approved site certificates for wind energy facilities before the final layout has been decided and the actual habitat impacts are known. This practice has allowed the wind energy industry to obtain construction financing before the final micrositing and design engineering decisions are made. Micrositing considerations include the size of the turbine selected and available for the facility, optimization of capture of the wind energy resource, geotechnical factors, avoidance of higher-value wildlife habitat, and reduction of adverse impacts on accepted farm practices in the area. The Council follows the same practice for the facility. Fish and Wildlife Condition 1, discussed above, requires the certificate holder to provide to the department a description of the final design layout of facility components and an updated assessment of the affected habitat prior to construction. The actual habitat impacts would be determined according to the final layout.

As shown in Table FW-1, the applicant has estimated habitat impacts using a “worst-case” layout; using this layout, the facility would have both permanent and temporary impacts on habitat in Categories 2, 3, 4, and 6. Approximately 35 percent (472 acres) of permanent and temporary impacts would occur on habitat in Categories 2, 3, and 4, and 65 percent (897 acres) of the total permanent and temporary impacts would occur on Category 6 habitat. The applicant proposed to construct the facility in such a way as to avoid habitat and otherwise minimize temporary and permanent impacts to higher-quality habitat and to retain habitat cover in the general landscape.²⁷⁷ To ensure habitat impacts are avoided and minimized, consistent with measures proposed by the applicant, the Council adopts the following conditions:

Fish and Wildlife Condition 7: During construction, the certificate holder shall employ a qualified environmental professional to provide environmental training to all personnel prior to working onsite, related to sensitive species present onsite, precautions to avoid injuring or destroying wildlife or sensitive wildlife habitat, exclusion areas, permit requirements and other environmental issues. All personnel shall be given clear maps showing areas that are off-limits for construction, and shall be prohibited from working outside of the areas in the site boundary that have been surveyed and approved for construction. The certificate holder shall instruct construction personnel to report any injured or dead wildlife detected while on the site to the appropriate onsite environmental manager. Records of completed training shall be maintained onsite and made available to the department upon request.

Fish and Wildlife Condition 8: Prior to construction, the certificate holder shall flag all environmentally sensitive areas as restricted work zones. Restricted work zones shall include but not be limited to areas with sensitive or protected plant species, including candidate species, wetlands and waterways that are not authorized for construction impacts, areas with seasonal restrictions, and active state sensitive species bird nests.

²⁷⁷ ASC, Exhibit P, pp.37-40.

Fish and Wildlife Condition 9: During construction, the certificate holder shall employ at a minimum one environmental inspector to be onsite daily. The environmental inspector shall oversee permit compliance and construction, and ensure that known sensitive environmental resources are protected. The environmental inspector shall prepare a weekly report during construction, documenting permit compliance and documenting any corrective actions taken. Reports shall be kept on file and available for inspection by the department upon request.

Additionally, impacts to fish and wildlife habitat would be further reduced by implementation of a fire prevention plan as described in Exhibit U and the Public Services section of this order, and a weed management plan, as required under Land Use Condition 6.

On the record of the June 6, 2016 public hearing, Ms. Gilbert/FGRV provided her comments on the ASC submitted to the Umatilla County Planning Department in August 2015. These comments noted the applicant's failure to conduct wildlife monitoring of wetlands or riparian areas surrounding the wetlands.²⁷⁸ As presented in Section IV.S. *Removal-Fill Law*, the applicant conducted a wetland-delineation study and determined that impacts to waters of the state would not occur during construction or operation of the facility; concurrence on the study results was received from DSL.

The Council's Fish and Wildlife standard requires the Council to find that the design, construction and operation of a facility would be consistent with ODFW's habitat mitigation goals and standards. To ensure consistency with ODFW's habitat mitigation goals and standards, in the proposed order, the department recommended the Council impose Fish and Wildlife Condition 8 establishing work zone restrictions within wetlands and waterways during construction. In addition, the proposed order recommended the Council impose Waste Minimization Condition 1, which would ensure that potential off-site disposal sites used for excess soil would be inspected to ensure no significant adverse impact to wetlands or high quality habitats would occur. The Council agrees with the Department's recommended conditions, and imposes the conditions in the site certificate. Because any potential impacts to wetland and waterways within the site boundary would be avoided through implementation and compliance with the above referenced conditions, additional monitoring as requested by Ms. Gilbert/FGRV would not be necessary to satisfy any Council standard.

In order to mitigate for permanent and temporary habitat impacts and to meet the Council's Fish and Wildlife Habitat standard, the applicant has proposed a HMP. The draft HMP is included as Attachment B to this order. As described in the HMP, the applicant proposed to establish a habitat mitigation area (HMA) to mitigate for the permanent and temporary impacts to habitat in Categories 2, 3, and 4.²⁷⁹ The HMA would provide compensatory mitigation for habitat lost

²⁷⁸ WRWAPPDoc100 DPO Public Comment_I. Gilbert 2016-06-06.

²⁷⁹ ASC, Exhibit P, Attachment P-3. No impacts to Category 5 habitat have been identified by the applicant. Impacts to Category 6 habitat do not require compensatory mitigation; the mitigation goal for Category 6 habitat is to minimize impacts.

1 due to the footprint of permanent facility components within the facility site boundary and
2 offset the temporal loss of habitat quality due to construction disturbance. The land in the HMA
3 must be capable of achieving habitat quality matching or exceeding the habitat quality category
4 of the land it is serving to mitigate. For example, impacts to Category 2 habitat must be
5 mitigated with Category 2 habitat or better.

6
7 The draft HMP includes a number of potential mitigation actions that could be implemented at
8 the HMA to mitigate for facility impacts. The certificate holder would monitor the mitigation
9 area to assess progress toward meeting success criteria. The applicant's proposed compensatory
10 mitigation acreage is shown in the draft HMP, pages 3-5. The applicant has distinguished
11 between Category 2 habitat based on its consultants' field surveys, and Category 2 habitat based
12 on ODFW Category 2 big game winter range data and information, and the applicant proposed
13 to provide a different degree of compensatory mitigation for these "types" of Category 2
14 habitat. ODFW habitat mitigation policy and the EFSC Fish and Wildlife Habitat Standard do not
15 distinguish between "types" of Category 2 habitat or have different mitigation requirements for
16 different "types" of Category 2 habitat. The Fish and Wildlife Habitat Standard must be satisfied
17 for all habitat categories, and there is no policy distinction between habitat that is categorized
18 based on an applicant's field surveys, and habitat categorized based on existing ODFW data and
19 information.

20
21 For permanent impacts to habitat classified as Category 2 based on field surveys, the applicant
22 proposed to provided compensatory mitigation at a 2:1 ratio, and for temporary impacts to the
23 same habitat, mitigation at a "greater than 1:1 ratio," though a specific number is not provided.
24 For permanent impacts to habitat classified as Category 2 based on ODFW winter range
25 designation, the applicant proposes to provide compensatory mitigation at a "greater than 1:1
26 ratio," and for temporary impacts, a 1:1 ratio. Compensatory mitigation for permanent impacts
27 to Categories 3 and 4 habitat are proposed at 1:1 ratio, for temporary impacts to certain types of
28 habitat, 0.5:1, and no compensatory mitigation for temporary impacts to other types of
29 Category 3 and 4 habitat, as described in the draft HMP. ODFW reviewed the application
30 including the HMP and did not provide specific comment on the habitat categorization or
31 mitigation acreage and ratios discussed here.

32
33 The HMP is in draft and must be finalized prior to construction. The finalized HMP must be
34 approved by the department in consultation with ODFW prior to construction. In addition, the
35 specific habitat enhancement actions to provide ecological and functional uplift must be

1 confirmed in the finalized HMP. As described in the draft HMP, the applicant has proposed a
2 number of enhancement actions to be performed at the HMA, including:

- 3 • Livestock grazing will be restricted from the HMA to ensure that habitat is maximally
4 useful to wildlife;
- 5 • The holder of the Site Certificate will work with the landowner to control or eradicate
6 noxious weeds.
- 7 • Revegetation with native plants—sagebrush and bunch grasses—will occur in
8 proportion to the acres of sagebrush and native grassland habitats lost through
9 proposed facility construction.
- 10 • A plan for fire response and control will be in place and applied to the HMA.
- 11 • Where old barbed wire fence on the HMA presents potential problems for wildlife,
12 the holder of the Site Certificate will work with the landowner to remove such
13 fencing.
- 14 • Habitat protection will involve restricting any uses of the mitigation area that would
15 be inconsistent with the goals of no net loss of habitats in Categories 2, 3, and 4 and a
16 net benefit to Category 2 habitat quantity or quality.

17
18 The Council adopts Fish and Wildlife Condition 10, requiring the applicant to finalize the HMP
19 prior to construction. On the record of the public hearing, Steve Cherry/ODFW identified that
20 the applicant proposed different levels of mitigation for different “types” of Category 2 habitat
21 based on whether the habitat was considered Category 2 habitat or Category 2 big game
22 habitat.²⁸⁰ ODFW recommended revising the draft HMP, included as Attachment B to the
23 proposed order, to include the same mitigation ratio for all Category 2 habitat and not use
24 differing mitigation ratios for Category 2 big game habitat. As currently proposed in the draft
25 HMP, the applicant would provide a 1:1 mitigation ratio for temporary impacts to Category 2
26 habitat for big game winter range. ODFW commented that this would not meet the Council’s
27 Fish and Wildlife standard for Category 2 habitat which requires no net loss of habitat quality or
28 quantity plus net benefit of habitat quantity or quality. Steve Cherry/ODFW further expressed
29 that the draft HMP does not include mitigation for temporary impacts to Category 4 habitat.
30 ODFW recommended that the draft HMP include mitigation for temporal impacts to shrub-
31 steppe Category 4 habitat.

32
33 On the record of the June 6, 2016 public hearing, on behalf of the applicant, David Petersen
34 argued that because recommended Fish and Wildlife Condition 10 would require the applicant
35 to receive approval of a final HMP from the department in consultation with ODFW, inclusion of
36 specific parameters within the draft HMP are not needed at this time. However, to ensure
37 compliance with the Council’s Fish and Wildlife Habitat standard, the department
38 recommended modification of Fish and Wildlife Condition 10 to specify that the final HMP shall
39 include mitigation for temporary impacts to Category 4 habitat (shrub-steppe habitat) and
40 mitigation for all Category 2 habitat impacts that meet the mitigation goal of no net loss of

²⁸⁰ WRWAPPDoc84 DPO Agency Comment ODFW_2016-06-01.

1 habitat quality or quantity, plus a net benefit of habitat quality or quantity.²⁸¹ The Council agrees
2 with the department's amendment to the recommended condition, and imposes Fish and
3 Wildlife Condition 10.

4
5 The final HMP must include updated habitat impact acreage and associated mitigation
6 requirements, and specific details regarding the habitat enhancement actions to be performed
7 at the HMA. The finalized HMP must also include a specific implementation schedule of habitat
8 enhancement actions, and a specific monitoring program and success criteria:

9
10 **Fish and Wildlife Condition 10:** Before beginning construction the certificate holder shall
11 prepare and receive approval from the department of a final Habitat Mitigation Plan. The
12 final Habitat Mitigation Plan shall be based on the final facility design and shall be approved
13 by the department in consultation with ODFW. The Council retains the authority to approve,
14 reject or modify the final HMP.

- 15 a. The final Habitat Mitigation Plan and the department's approval must be received
16 prior to beginning construction. The department shall consult with ODFW on the final
17 plan. The certificate holder shall implement the requirements of the approved plan
18 during all phases of construction and operation of the facility.
- 19 b. The certificate holder shall calculate the size of the habitat mitigation area according
20 to the final design configuration of the facility and the estimated areas of habitat
21 affected in each habitat category, in consultation with the department, as per the
22 pre-construction survey results and impact assessment calculations called for in Fish
23 and Wildlife Condition 1.
- 24 c. The certificate holder shall acquire the legal right to create, enhance, maintain, and
25 protect the habitat mitigation area, as long as the site certificate is in effect, by
26 means of an outright purchase, conservation easement or similar conveyance and
27 shall provide a copy of the documentation to the department prior to the start of
28 construction. Within the habitat mitigation area, the certificate holder shall improve
29 the habitat quality as described in the final Habitat Mitigation Plan.
- 30 d. The final HMP shall include an implementation schedule for all mitigation actions,
31 including securing the conservation easement, conducting the ecological uplift
32 actions at the habitat mitigation area, revegetation and restoration of temporarily
33 impacted areas, and monitoring. The mitigation actions shall be implemented
34 according to the following schedule, as included in the HMP:
- 35 i. Restoration and revegetation of temporary construction-related impact area
36 shall be conducted as soon as possible following construction.
- 37 ii. The certificate holder shall obtain legal authority to conduct the required
38 mitigation work at the compensatory habitat mitigation site before
39 commencing construction. The habitat enhancement actions at the

²⁸¹ Recommended Fish and Wildlife Condition 10, as presented in the draft proposed order, contained (a) through (f). However, based upon ODFW's comments, the department recommended in the proposed order to add a new provision (f), resulting in re-lettering the requirements (a) through (g).

1 compensatory habitat mitigation site shall be implemented concurrent with
2 construction.

3 e. The final HMP shall include a monitoring and reporting program for evaluating the
4 effectiveness of all mitigation actions, including restoration of temporarily impacted
5 areas and ecological uplift actions at the habitat mitigation area.

6 f. The final HMP shall include mitigation in compliance with the Council's Fish and
7 Wildlife Habitat standard, including mitigation for temporary impacts to Category 4
8 habitat (shrub-steppe habitat); and, mitigation for all Category 2 habitat impacts that
9 meet the mitigation goal of no net loss of habitat quality or quantity, plus a net
10 benefit of habitat quality or quantity.

11 g. The final HMP may be amended from time to time by agreement of the certificate
12 holder and the Oregon Energy Facility Siting Council ("Council"). Such amendments
13 may be made without amendment of the site certificate. The Council authorizes the
14 Department to agree to amendments to this plan. The Department shall notify the
15 Council of all amendments, and the Council retains the authority to approve, reject,
16 or modify any amendment of this plan agreed to by the Department.

17
18 The exact location of the turbines is unknown; therefore, the applicant has requested approval
19 of micrositing corridors for turbine placement which is contemplated and allowed under the
20 Council's rules.²⁸² Therefore, by necessity, the HMP is approved in draft form and the plan is
21 finalized when the total mitigation area is determined prior to construction. The finalization of
22 the HMP prior to construction includes confirmation of habitat categories in consultation with
23 ODFW and subject to approval by the department, and to a final mathematical calculation of
24 acreages to determine the habitat mitigation acreage based upon an approved calculation
25 methodology.

26
27 As presented above, Fish and Wildlife Condition 10 requires that the certificate holder, prior to
28 beginning construction, obtain approval from the department and ODFW of the final HMP. The
29 condition also specifies that the certificate holder conduct a preconstruction review of habitat
30 characteristics to make certain that the habitat categories identified at the time of site
31 certificate approval remain accurate. Pursuant to ORS 469.402, the department must notify the
32 Council of the adoption of the final plan and of all amendments to it, and the Council retains
33 the authority to approve, reject or modify the final and any amendment to the plan.
34 Notification of the final and any amendments to the HMP would appear on the agenda
35 distributed for Council meetings. Therefore, members of the public included on the Council's
36 mailing list would be notified of and could review the exact nature of the final and any
37 proposed plan amendment.

38
39 Impacts to wildlife habitat would be further reduced by the implementation of a revegetation
40 plan. This is called for in Mandatory Condition 6 under the General Standard of Review section.

²⁸² OAR 345-001-0010 defines a "micrositing corridor" as a "continuous area of land within which construction of facility components may occur, subject to site certificate conditions."

1 As previously discussed, the applicant has prepared a draft revegetation concept, included as
2 Attachment C of this final order. The Council adopts the following condition, with minor
3 administrative revisions included in the proposed order, requiring the applicant to finalize the
4 revegetation plan prior to construction.²⁸³

5
6 **Fish and Wildlife Condition 11:** Before beginning construction, the certificate holder shall
7 prepare and receive approval of a final Revegetation Plan, provided as Attachment C to
8 this order, from the department, in consultation with Umatilla and Morrow counties and
9 ODFW. The certificate holder shall implement the requirements of the approved plan
10 during all phases of construction and operation of the facility.

11
12 Additionally, as discussed above, the proposed WMMP requires the certificate holder to
13 implement a wildlife monitoring plan, and if warranted by the monitoring results, the
14 department has the ability to require additional mitigation in order to ensure compliance with
15 the Fish and Wildlife Habitat standard.

16
17 Based on the applicant's analysis and representations, and on review of the information
18 provided in Exhibit P of the ASC and other evidence in the record discussed above, and subject
19 to compliance with the site certificate conditions, the Council finds that the design, construction,
20 and operation of the facility, taking into account mitigation, are consistent with the fish and
21 wildlife habitat mitigation goals and standards of OAR 345-415-0025.

22 23 **Conclusions of Law**

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

28 29 **IV.I. Threatened and Endangered Species [OAR 345-022-0070]**

30
31 *To issue a site certificate, the Council, after consultation with appropriate state agencies, must*
32 *find that:*

²⁸³ On the record of the May 19, 2016 public hearing, Ms. Gilbert/FGRV requested that the Council impose a condition requiring quarterly monitoring of revegetation in areas impacted by construction and O&M activities. Recommended Fish and Wildlife Condition 11 would require the certificate holder to prepare and receive approval from the department, in consultation with Morrow and Umatilla counties and ODFW, of a final Revegetation Plan. Review and approval of the final Revegetation Plan would be based upon site specific conditions, revegetation measures, and typical monitoring schedules determined sufficient for measuring success. Attachment C of the final order includes the applicant's draft Revegetation Plan, which includes a proposed monitoring schedule following construction completion for year 1, year 3, year 5 and subsequent years if additional action is necessary to satisfy the established revegetation success criteria. Ms. Gilbert/FGRV does not explain why the monitoring schedule included in the draft Revegetation Plan is insufficient for evaluating revegetation efforts against the established success criteria nor does she provide a basis for imposing a quarterly monitoring schedule. WRWAPPDoc68 DPO Public Comment_I Gilbert 2016-05-19.

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

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

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

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

Findings of Fact

The Threatened and Endangered Species standard requires the Council to find that the design, construction, and operation of a facility is not likely to cause a significant reduction in the likelihood of survival or recovery of a fish, wildlife, or plant species listed as threatened or endangered by ODFW or Oregon Department of Agriculture (ODA). For threatened and endangered plant species, the Council must also find that a facility is consistent with an adopted protection and conservation program from ODA. Threatened and endangered species are those listed under ORS 564.105(2) for plant species and ORS 496.172(2) for fish and wildlife species. For the purposes of this standard, threatened and endangered species are those identified as such by either the Oregon Department of Agriculture or the Oregon Fish and Wildlife Commission.²⁸⁴

The analysis area for threatened or endangered plant and wildlife species is the area within and extending five-miles from the site boundary. The applicant's assessment of the facility's compliance with the Threatened and Endangered Species standard was included as Exhibit Q.

Surveys and Results

In order to identify endangered, threatened, proposed, and candidate species, and species of concern that might occur within the analysis area, the applicant conducted searches of the ORBIC and USFWS databases for documented and predicted occurrences of rare, threatened, endangered plant and wildlife species likely to be found within the analysis area; the applicant

²⁸⁴ Although the Council's standard does not address federally-listed threatened or endangered species, certificate holders must comply with all applicable federal laws, including laws protecting those species, independent of the site certificate.

1 explained that for golden and bald eagles, the records search was based on documented and
2 predicted occurrences within a 10-mile buffer of the site boundary. The applicant used
3 information from the database searches to inform plant and wildlife field surveys of the analysis
4 area that were performed for special-status plants from May 11 to June 13, 2011, with
5 subsequent visits on June 28, 2011 and July 25, 2011. In addition, the applicant conducted
6 supplemental special-status plant surveys in 2012 and 2013. Special-status wildlife species
7 surveys were conducted in March through June, 2011, with supplemental surveys conducted in
8 2012 and 2013.²⁸⁵ The rare plant and wildlife species survey reports were included in Exhibit P,
9 Attachment P-1.

10
11 The applicant's desktop and literature review identified four state or federally listed threatened
12 or endangered species with the potential for occurrence within the analysis area, including one
13 plant, one mammal, and two fish; Laurent's milkvetch, Washington ground squirrel, bull trout,
14 and steelhead. Of these, the applicant stated that bull trout and steelhead have no potential for
15 occurrence within the site boundary;²⁸⁶ additionally, bull trout and steelhead are not
16 considered threatened or endangered by ODFW and are therefore not considered in the
17 Council's Threatened and Endangered Species standard.

18
19 The applicant also explained in Exhibit Q that four ODA candidate plant species were identified
20 as having potential for occurrence within the analysis area. These candidate species include
21 dwarf suncup, disappearing monkeyflower, liverwort monkeyflower, and vernal pool mousetail.
22 Subsequent field studies by the applicant did not detect any evidence of these four species.²⁸⁷

23
24 As explained in Exhibit Q, Washington ground squirrels were detected on land associated with
25 the Wheatridge West turbine group, the Wheatridge East turbine group, and the transmission
26 intraconnection corridor.²⁸⁸ Specific surveys for the listed fish species were not conducted
27 because, as explained in Exhibit Q, there has not yet been any documented occurrence of any
28 state or federal listed fish species within the site boundary; moreover, facility construction and
29 operation would not result in temporary or permanent impacts to intermittent or perennial
30 fish-bearing streams. One state-listed plant species, Laurent's Milkvetch, was found during the
31 applicant's rare plant surveys.²⁸⁹ As stated in Exhibit Q, no other threatened, endangered, or
32 candidate plant or wildlife species were observed during field surveys.

33 Impact Assessment

34 *Wildlife Species*

35
36
37
38 Washington ground squirrel is a state-listed endangered species. As described in Exhibit Q, the
39 squirrels live in deep burrows for much of the year, and are present above-ground in significant

²⁸⁵ ASC, Exhibit Q, pp. 5-6.

²⁸⁶ ASC, Exhibit Q, p. 4.

²⁸⁷ ASC, Exhibit Q, pp. 4 and 6.

²⁸⁸ ASC, Exhibit Q, p. 6.

²⁸⁹ ASC, Exhibit Q, p. 6.

1 numbers generally between February and June each year. The applicant recorded 124
2 detections of Washington ground squirrel present within the facility survey corridors. There
3 were 50 detections recorded within the survey corridor for the Wheatridge West turbine group,
4 55 detections recorded within the survey corridor for the Wheatridge East turbine group, and
5 19 detections recorded within the survey corridor for the intraconnection transmission line.

6
7 As explained in Exhibit Q, recorded detections included single holes with scat present and large
8 colonies where the species was both seen and heard. Washington ground squirrel areas of use
9 as well as an area extending 785 feet from the area of use (in suitable habitat) are considered
10 Category 1 habitat, and therefore no impact is allowed in this area under the ODFW Fish and
11 Wildlife Habitat Mitigation Policy and the Council's Fish and Wildlife Standard. If the multiple-
12 burrow area was active in a prior survey year, then Category 1 habitat includes the largest
13 extent of the active burrow area ever recorded (in the current or any prior-year survey), plus a
14 785-foot buffer.

15
16 The applicant stated that facility construction and operation could impact the Washington
17 ground squirrel. Impacts could include direct mortality from facility equipment and vehicle
18 operation, loss of potential future suitable habitat, and wildfires.²⁹⁰

19 As described in Exhibit Q, the applicant has proposed a number of mitigation measures to
20 reduce the potential impact to Washington ground squirrel and its habitat. These include siting
21 the facility on developed habitat when possible, particularly dryland wheat fields, and
22 conducting pre-construction surveys to confirm and avoid Category 1 habitat during micro-siting
23 and construction.²⁹¹

24
25 Additionally, in order to reduce the potential impact to Washington ground squirrel, the
26 applicant has proposed to conduct additional pre-construction surveys for Washington ground
27 squirrel to confirm locations of the species and its habitat.²⁹² In two comment letters, ODFW
28 agreed that additional pre-construction surveys for Washington ground squirrel should be
29 conducted.²⁹³ On the record of the June 6, 2016 public hearing, on behalf of Morrow County
30 Court the Morrow County Planning department raised concern that recommended Threatened
31 and Endangered Species Condition 1 appears to require annual surveying of Category 1
32 Washington ground squirrel habitat through the date of construction commencement, even if
33 construction is delayed.²⁹⁴

34
35 On the record of the public hearing, Steve Cherry/ODFW requested modification of
36 recommended Threatened and Endangered Condition 1 to specify that the protocol-level
37 Washington ground squirrel survey results are only valid for three years and that any re-survey
38 within that three-year window simply requires a refresh of the known squirrel colonies; after

²⁹⁰ ASC, Exhibit Q, p. 7.

²⁹¹ ASC, Exhibit Q, pp. 8-9.

²⁹² ASC, Exhibit Q, p. 10.

²⁹³ WRWAPPDoc4, Completeness Memo, 02-04-2015 and WRWAPPDoc32, Agency Comment ODFW, 08-20-2015.

²⁹⁴ WRWAPPDoc117 SAG Comment_Morrow County 2016-06-06.

1 the three-year period, a complete resurvey of any potential WGS habitat within 1,000 feet of
2 proposed ground disturbing activities is needed.²⁹⁵ In response to these comments, the
3 department recommended that the Council adopt the following condition, as amended,
4 requiring the applicant to conduct a survey for Washington ground squirrel before beginning
5 construction of the proposed facility; and to avoid any permanent or temporary disturbance in
6 all areas of Category 1 Washington ground squirrel habitat.²⁹⁶ The Council agrees with the
7 department's recommendation and imposes Threatened and Endangered Species Condition 1
8 as amended in the proposed order.

9
10 **Threatened and Endangered Species Condition 1:** Prior to construction, the certificate
11 holder shall determine the boundaries of Category 1 Washington ground squirrel
12 habitat. The certificate holder shall hire a qualified professional biologist who has
13 experience in detection of Washington ground squirrel to conduct pre-construction
14 surveys using a survey protocol approved by the department in consultation with
15 ODFW. The biologist shall survey all areas of suitable habitat within 1,000 feet of any
16 ground disturbing activity. Ground disturbing activity refers to any potential impact,
17 whether permanent or temporary. The protocol surveys shall be conducted in the
18 active squirrel season (March 1 to May 31) prior to construction commencement. The

²⁹⁵ WRWAPPDoc84 Agency Comment (S. Cherry) 2016-06-01.

²⁹⁶ In the draft proposed order, recommended Threatened and Endangered Species Condition 1 stated, "Prior to construction, the certificate holder shall determine the boundaries of Category 1 Washington ground squirrel habitat. The certificate holder shall hire a qualified professional biologist who has experience in detection of Washington ground squirrel to conduct pre-construction surveys using a survey protocol approved by ODOE in consultation with ODFW. The biologist shall survey all areas of suitable habitat where permanent facility components would be located or where construction disturbance could occur. Except as provided in (a), the biologist shall conduct the protocol surveys in the active squirrel season (March 1 to May 31) prior to construction commencement and in the active squirrel seasons in subsequent years until the beginning of construction in suitable habitat.

The certificate holder shall provide written reports of the surveys to the department and to ODFW and shall identify the boundaries of Category 1 Washington ground squirrel habitat. The certificate holder shall not begin construction within suitable habitat until the identified boundaries of Category 1 Washington ground squirrel habitat have been approved by the department.

(a) The certificate holder may omit the WGS survey in any year if the certificate holder avoids all permanent and temporary disturbance within suitable habitat until a Washington ground squirrel survey has been completed in the following year and the boundaries of Category 1 habitat have been determined and approved based on that survey.

The certificate holder shall avoid any permanent or temporary disturbance in all Category 1 habitat. The certificate holder shall ensure that these sensitive areas are correctly marked with exclusion flagging and avoided during construction.

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

1 protocol survey is valid for three years. If construction begins within three years of
2 conducting the protocol survey, but not within one year of the protocol survey, the
3 certificate holder shall conduct a pre-construction survey only within areas of suitable
4 Washington ground squirrel habitat where ground disturbing activity would occur.

5
6 The certificate holder shall provide written reports of the surveys to the department and
7 to ODFW and shall identify the boundaries of Category 1 Washington ground squirrel
8 (WGS) habitat. The certificate holder shall not begin construction within suitable habitat
9 until the identified boundaries of Category 1 WGS habitat have been approved by the
10 department, in consultation with ODFW.

11
12 The certificate holder shall avoid any permanent or temporary disturbance in all
13 Category 1 WGS habitat. The certificate holder shall ensure that these sensitive areas
14 are correctly marked with exclusion flagging and avoided during construction.

15
16 In addition, Fish and Wildlife Condition 8 requires an onsite environmental inspector during
17 construction of the facility. As noted by the applicant, a task of the environmental inspector
18 would be to monitor construction to ensure that Washington ground squirrels have not
19 migrated from areas where they were documented to areas of construction.²⁹⁷

20
21 Finally, Threatened and Endangered Species Condition 2 requires the certificate holder to
22 finalize and implement a WMMP (included in draft form as Attachment D to this proposed
23 order). ODFW recommended that the WMMP include a long-term monitoring program for
24 Washington ground squirrel to monitor and assess facility operational impacts to the species.²⁹⁸
25 In order to incorporate the Washington ground squirrel monitoring program into the WMMP,
26 the department recommended the Council adopt the following condition, requiring the
27 applicant to incorporate a Washington ground squirrel monitoring program into the final
28 WMMP, as reviewed and approved by the department in consultation with ODFW:

29
30 **Threatened and Endangered Species Condition 2:** In accordance with Fish and Wildlife
31 Condition 3, prior to construction, the certificate holder shall finalize and implement the
32 Wildlife Monitoring and Mitigation Plan (WMMP) provided in Attachment D of this
33 order, based on the final facility design, as approved by the department in consultation
34 with ODFW. The final WMMP shall include a program to monitor potential impacts from
35 facility operation on Washington ground squirrel. Monitoring shall be of any known
36 colonies and shall be completed on the same schedule as the raptor nest monitoring for
37 the facility. The monitoring surveys shall include returning to the known colonies to
38 determine occupancy and the extent of the colony as well as a general explanation of
39 the amount of use at the colony. If the colony is not found within the known boundary
40 of the historic location a survey 500 feet out from the known colony will be conducted
41 to determine if the colony has shifted over time. Any new colonies that are located

²⁹⁷ ASC, Exhibit P, Attachment P-1, p. 45.

²⁹⁸ WRWAPPDoc32, Agency Comment ODFW, 08-20-2015.

1 during other monitoring activities, such as raptor nest monitoring surveys, shall be
2 documented and the extent of those colonies should be delineated as well. These newly
3 discovered colonies shall also be included in any future WGS monitoring activities.
4

5 The Council concurs with the department's recommendations and imposes Threatened and
6 Endangered Species Condition 2 as specified above. Subject to these conditions, the Council
7 finds that the design, construction and operation of the facility are not likely to cause a
8 significant reduction in the survival or recovery of the species.
9

10 *Plant Species*

11
12 Laurent's milkvetch is a State-listed threatened species. The applicant recorded two population
13 detections, one within the Wheatridge West turbine group and one within the Wheatridge East
14 turbine group. Potential adverse impacts to Laurent's milkvetch from facility construction and
15 operation include direct mortality of plants, loss of potential future suitable habitat, and
16 wildfires.²⁹⁹
17

18 In Exhibit Q, the applicant committed to avoiding known populations of Laurent's milkvetch.³⁰⁰
19 In order to avoid potential impacts to the species, the Council adopts the following condition,
20 requiring the applicant to include in its pre-construction survey (as required by proposed Fish
21 and Wildlife Condition 1) a specific survey for Laurent's Milkvetch, and to flag and avoid all
22 areas where the species is located; and requiring that, if herbicides are used to control weeds,
23 the certificate holder maintain a restriction buffer around known populations of the Laurent's
24 milkvetch.
25

26 **Threatened and Endangered Species Condition 3:** To avoid potential impacts to
27 Laurent's milkvetch, the certificate holder must:

- 28 a. Conduct preconstruction plant surveys for Laurent's milkvetch. If the species is
29 found to occur, the certificate holder must install protection flagging around the
30 plant population and avoid any ground disturbance within this zone.
- 31 b. Ensure that any plant protection zone established under (a) above is included on
32 construction plans showing the final design locations.
- 33 c. If herbicides are used to control weeds, the certificate holder shall follow the
34 manufacturer's guidelines in establishing a buffer area around confirmed
35 populations of Laurent's milkvetch. Herbicides must not be used within the
36 established buffers.
37

38 As the applicant stated in Exhibit Q and as required by Mandatory Condition 6 (revegetation of
39 temporarily impacted areas), any potentially suitable but unoccupied Laurent's milkvetch
40 habitat would be required to be restored. Additionally, Fish and Wildlife Condition 6 requires
41 that environmental training be provided to all personnel prior to working onsite; a component

²⁹⁹ ASC, Exhibit Q, p. 7.

³⁰⁰ ASC, Exhibit Q, pp. 10-11.

of this training would cover protection and avoidance of threatened and endangered species including Laurent's milkvetch. Finally, Fish and Wildlife Condition 8 requires an onsite environmental inspector to oversee permit compliance and protection of sensitive environmental resources such as known populations of Laurent's milkvetch.

Based on the applicant's representations and analysis, and subject to compliance with the conditions, the Council finds that the design, construction, and operation of the facility are not likely to cause a significant reduction in the likelihood of survival or recovery of Laurent's milkvetch.

Conclusions of Law

Based on the foregoing findings of fact and conclusions, and subject to compliance with the site certificate conditions, the Council finds that the facility complies with the Council's Threatened and Endangered Species standard.

IV.J. Scenic Resources [OAR 345-022-0080]

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

***301

Findings of Fact

OAR 345-022-0080 requires the Council to determine that the design, construction and operation of the proposed facility will not have a "significant adverse impact" to any significant or important scenic resources and values in the analysis area. In applying the standard set forth in OAR 345-022-0080(1), the Council assesses the visual impacts of facility structures on significant or important scenic resources described in "local land use plans, tribal land management plans and federal land management plans for any lands located within the analysis area described in the project order." For purposes of this rule, "local land use plans" includes applicable state management plans.

The applicant provided evidence regarding potential impacts to scenic resources in Exhibit R of the ASC. The analysis area for the Scenic Resources standard is the area within and extending 10-miles from the site boundary. The analysis area includes parts of two Oregon counties, seven Oregon municipalities, and land administered by the Bureau of Land Management (BLM), National Park Service (NPS), and Department of Defense (DoD). Table SR-1, *Important Scenic Resources Inventory*, below, presents the land management plans evaluated by the applicant to

³⁰¹The facility is not a special criteria facility under OAR 345-015-0310; therefore OAR 345-022-0080(2) is not applicable.

- 1 determine the presence of scenic resources within the analysis area. Based on the applicant's
- 2 review of applicable land use plans, there are no significant or important scenic resources within
- 3 the analysis area.
- 4

Table SR-1: Important Scenic Resources Inventory

Jurisdiction	Plan	Scenic Resources Specified in Plan (Y/N)	Important or Significant Scenic Resources Identified in Analysis Area (Y/N)
Counties			
Morrow County	Morrow County Comprehensive Plan and Zoning Ordinance, as updated through 2011	No	No
Umatilla County	Umatilla County Comprehensive Plan, as amended through 2010	Yes	No
Cities			
City of Lone	City of Lone Comprehensive Plan (1987)	No	No
City of Lexington	City of Lexington Comprehensive Plan (1979)	No	No
City of Heppner	City of Heppner Comprehensive Plan (2004)	No	No
City of Hermiston	City of Hermiston Comprehensive Plan, as amended through 2014	No	No
City of Stanfield	City of Stanfield Comprehensive Plan (1983) and Development Code (2003)	No	No
City of Echo	City of Echo Comprehensive Plan (2005) and Zoning Administrative Regulations (2010)	No	No
Tribal			
None applicable	None	-	-
Federal			
BLM, Vale District, Baker Resource Area	Baker Resource Management Plan (BLM 1989)	Yes	No
NPS	Management and Use Plan Update, Oregon National Historic Trail and Mormon Pioneer National	No	No

Table SR-1: Important Scenic Resources Inventory

Jurisdiction	Plan	Scenic Resources Specified in Plan (Y/N)	Important or Significant Scenic Resources Identified in Analysis Area (Y/N)
DoD	Integrated Natural Resource Management Plan and Integrated Cultural Resource Management Plan for Boardman Bombing Range (Naval Weapons System Training Facility), 2012	No	No
USFS/ODOT	Blue Mountain Scenic Byway Interpretive Management Plan	Yes	No

Visual Features of the Proposed Facility

The tallest components of the facility are the turbine towers, and although these structures are the visual elements of the facility most likely to be visible from a distance, the visual impact diminishes with distance. Within the site boundary, the applicant proposed to construct up to 292 wind turbine towers. The maximum blade tip height (tower height plus blade length) would range from 433 feet to 476 feet. In addition, the applicant proposed up to 12 328-foot permanent meteorological towers, aboveground 230-kV transmission line structures up to 150-foot tall, aboveground collector line structures up to 60-foot tall, two O&M buildings, and up to three substations.

Visual Impact Assessment

As described above, based on the applicant's review of applicable land use plans, there are no significant or important scenic resources within the analysis area. However, the applicant completed a visual impact assessment within the analysis area to evaluate potential visual impacts related to the change in existing visual character resulting from operation of the proposed facility. In Exhibit R, the applicant described four key observation points (KOPs) selected for evaluation of visual impacts, and completed visual simulations of proposed facility components for the KOPs. The applicant also conducted a Zone of Visual Influence (ZVI) analysis using Environmental Systems Research Institute ArcGIS software to identify jurisdictions where the proposed facility would be visible. The results of the visual impact analysis identified that facility components would have low to moderate visibility at the selected KOP locations, but that there was no management direction for preservation of views or scenic quality at any of the KOP locations.

In Exhibit R, the applicant proposed measures to reduce, avoid and otherwise mitigate adverse visual impacts from the proposed facility. The Council considers these proposed measures to be

1 binding representations. Accordingly, the Council adopts the following conditions requiring the
2 measures proposed by the applicant, as follows:

3
4 **Scenic Resources Condition 1:** To reduce visual impacts associated with lighting facility
5 structures, other than lighting on structures subject to the requirements of the Federal
6 Aviation Administration or the Oregon Department of Aviation, the certificate holder
7 shall implement the following measures:

- 8 a. Outdoor night lighting at the collector substations and Operations and
9 Maintenance Buildings must be
10 i. The minimum number and intensity required for safety and
11 security;
12 ii. Directed downward and inward within the facility to minimize
13 backscatter and offsite light trespass; and
14 iii. Have motion sensors and switches to keep lights turned off when
15 not needed.

16
17 **Scenic Resources Condition 2:** The certificate holder shall:

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

39
40 In addition, the applicant proposed to implement a Revegetation and Weed Management Plan
41 to reduce and avoid visual impacts resulting from vegetation clearing practices during
42 construction; a condition requiring development and implementation of this plan is included in
43 Section IV.H *Fish and Wildlife Habitat* of this order.
44

Based on the applicant's representations and analysis, and subject to compliance with the conditions, the Council finds that the design, construction, and operation of the facility are not likely to result in significant adverse impact to any identified scenic resources and values.

Conclusions of Law

Based on the foregoing findings of fact and conclusions of law, and subject to compliance with the site certificate conditions, the Council finds that the facility complies with the Council's Scenic Resources standard.

IV.K. Historic, Cultural and Archaeological Resources [OAR 345-022-0090]

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

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

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

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

(2) The Council may issue a site certificate for a facility that would produce power from wind, solar or geothermal energy without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.³⁰²

Under ORS 469.501(4), the Council may issue a site certificate without making the findings required by the standards discussed in this section. Nevertheless, the Council may impose site certificate conditions based on the requirements of this standard.

Findings of Fact

Section (1) of the Historic, Cultural and Archaeological Resources standard generally requires the Council to find that the proposed facility is not likely to result in significant adverse impacts to identified historic, cultural or archaeological resources. Under Section (2), the Council may issue a site certificate for a wind power facility without making findings with this section. However, the Council may impose site certificate conditions based on the requirements of this

³⁰² The proposed facility is not a special criteria facility under OAR 345-015-0310; therefore OAR 345-022-0090(3) is not applicable.

1 standard. The applicant provided information regarding historic, cultural and archaeological
2 resources in Exhibit S of the ASC.³⁰³ The project order identifies the analysis area as all areas
3 within the site boundary. There are no public lands located within the site boundary.

4
5 The applicant contracted with the Cultural Resources Protection Program of the Confederated
6 Tribes of the Umatilla Indian Reservation (CTUIR-CRPP) to conduct archaeological field and
7 desktop surveys for the entire 13,097 acres within the site boundary. Qualified archaeologists
8 from CTUIR-CRPP conducted a desktop survey of archaeological records maintained by SHPO
9 relevant to the site of the proposed facility. The desktop survey included a file and literature
10 search conducted at SHPO to identify potential historic, cultural, or archeological resources
11 within the proposed site boundary and a 1-mile buffer outside the site boundary. Pedestrian
12 surveys were carried out between October 28, 2013 and January 17, 2014.³⁰⁴ As stated in
13 Exhibit S of the ASC, archaeological field investigations were conducted in accordance with
14 SHPO's *Guidelines for Conducting Field Archaeology in Oregon* (SHPO, 2007).

15
16 As stated in Exhibit S, the desktop survey revealed four previously recorded archeological sites
17 within one-mile of the site boundary, but none within the site boundary. The pedestrian field
18 surveys recorded 21 archeological sites and isolated finds within the site boundary.
19 Archaeological sites included rock cairns and other stacked rock features, historic farm
20 equipment, and the Vey Ranch phone line. Isolated finds included single tertiary flakes,
21 manganese glass bottle fragments, basalt biface fragment, scatters of artifacts, and lithic
22 scatters.

23
24 Of the 21 archaeological sites and isolated finds, eight were historic, seven were pre-contact,
25 and six were isolated finds. CTUIR-CRPP recommended that seven of the 21 historic sites and
26 isolated finds be found potentially eligible for inclusion on the National Register of Historic
27 Places (NRHP).³⁰⁵ In a comment letter, SHPO confirmed receipt of the applicant's archeological
28 investigation report and concurred with the eligibility recommendations provided in the report
29 and that the proposed facility, with implementation of appropriate avoidance measures, would
30 not likely have an effect on any significant archeological objects or sites.³⁰⁶

31
32 As stated in Exhibit S, the applicant proposed to design the portion of the proposed facility in
33 Umatilla County in compliance with Umatilla County Development Ordinance Section
34 152.616(HHH)(6)(a)(5) which establishes a 50-foot setback requirement for wind facilities from
35 any known archeological, historical or cultural site of the CTUIR. The facility has been designed

³⁰³ Pursuant to OAR 345-021-0010(1)(s), information concerning the location of historic, cultural and archaeological resources and/or objects may be exempt from public disclosure under ORS 192.502(4) or 192.501(11). Therefore, the applicant submitted a confidential cultural resource report, designated Attachment S to Exhibit S.

³⁰⁴ ASC, Exhibit S, p. 3.

³⁰⁵ ASC, Exhibit S, Table S-1.

³⁰⁶ WRWAPPDoc16, Agency Comment SHPO Concurrence Letter, 08-18-2014. In a comment letter received from SHPO, concurrence with the results of field surveys was provided.

1 to avoid impacts to all known archeological, historic and cultural resources deemed eligible or
2 potentially eligible for NRHP listing. In addition, the applicant proposed the following measures
3 to ensure that impacts are avoided:³⁰⁷

- 4
- 5 • Facility location adjustment: Project facilities have been sited away from identified
- 6 archeological resources, in coordination with the CTUIR;
- 7 • Environmental awareness training: cultural resources sensitivity training would be
- 8 required for personnel working on facility construction;
- 9 • Construction drawings: archeological resources would be identified on construction
- 10 drawings as 'sensitive resource areas – no entry';
- 11 • Exclusion flagging: archeological resources would be identified within 200 feet (61
- 12 meters) of planned construction and marked with exclusion fencing or other marking
- 13 demarcating a 98 foot (30 meter) buffer; and,
- 14 • Field compliance monitoring: archaeological monitors would be present during
- 15 construction in areas within 200 feet of archeological cultural resources recommended
- 16 as potentially eligible to the NRHP (Sites 103012A, 110409A, 111410A, 111414A and
- 17 010711A).
- 18

19 In accordance with OAR 345-022-0090(2),³⁰⁸ the Council adopts the following conditions to
20 reduce potential adverse impacts on historic, cultural, and archaeological resources:

21

22 **Historic, Cultural, and Archeological Resources Condition 1:** Before beginning
23 construction, the certificate holder shall provide to the department a map showing the
24 final design locations of all components of the facility, the areas that will be temporarily
25 disturbed during construction and the areas that were surveyed in 2013-14 for historic,
26 cultural, and archaeological resources.

27

28 **Historic, Cultural, and Archeological Resources Condition 2:** Before beginning
29 construction, the certificate holder shall mark the buffer areas established under
30 Historic, Cultural, and Archeological Resources Condition 3 for all identified historic,
31 cultural, or archaeological resource sites (including those of unknown age) on
32 construction maps and drawings as "no entry" areas. A copy of current maps and
33 drawings must be maintained onsite during construction and made available to the
34 department upon request.

35

36 **Historic, Cultural, and Archeological Resources Condition 3:** Immediately prior to
37 construction activities, the certificate holder must flag or otherwise mark a 200-foot
38 avoidance buffer around historic archaeological sites, as identified by the maps and
39 drawings prepared in accordance with Historic, Cultural, and Archeological Resources

³⁰⁷ ASC, Exhibit S, pp. 10-11.

³⁰⁸ Under OAR 345-022-0090(2), the Council may issue a site certificate for a facility that would produce power from wind without making the findings described in section (1). However, the Council may apply requirements of section OAR 345-022-0090(1) to impose conditions on a site certificate issued for a wind power facility.

Conditions 1 and 2. No disturbance is allowed within the buffer zones. For historic archaeological sites, an archeological monitor must be present if construction activities are required within 200-feet of sites identified as potentially eligible for listing on the National Register of Historic Places. The certificate holder may use existing private roads within the buffer areas but may not widen or improve private roads within the buffer areas. The no-entry restriction does not apply to public road rights-of-way within buffer areas. Flagging or marking should be removed immediately upon cessation of activities in the area that pose a threat of disturbance to the site being protected.

Historic, Cultural, and Archeological Resources Condition 4: Before beginning construction, the certificate holder shall ensure that a qualified archeologist, as defined in OAR 736-051-0070, trains construction contractors on how to identify sensitive historic, cultural, and archaeological resources present onsite and on measures to avoid accidental damage to identified resource sites. Records of such training must be maintained onsite during construction, and made available to the department upon request.

It is possible that construction activities could uncover previously unrecorded historic, cultural or archaeological resources. The applicant stated that if there is a discovery of any previously unidentified cultural resource, construction activities would cease within the immediate vicinity of the newly identified cultural resource pending evaluation by a qualified archeologist, and the appropriate state authorities would be notified. The Council adopts the following conditions to ensure that previously undiscovered sites are protected during construction and operation of the facility:

Historic, Cultural, and Archeological Resources Condition 5: During construction, the certificate holder shall ensure that construction personnel cease all ground-disturbing activities in the immediate area if any archeological or cultural resources are found during construction of the facility until a qualified archeologist can evaluate the significance of the find. The certificate holder shall notify the department and the Oregon State Historic Preservation Office (SHPO) of the find. If ODOE, in consultation with SHPO, determines that the resource meets the definition of an archaeological object, archaeological site, or is eligible or likely to be eligible for listing on the National Register of Historical Places, the certificate holder shall, in consultation with the department, SHPO, interested Tribes and other appropriate parties, make recommendations to the Council for mitigation, including avoidance, field documentation and data recovery. The certificate holder shall not restart work in the affected area until the department, in consultation with SHPO, agree that the certificate holder has demonstrated that it has complied with archeological resources protection regulations.

Conclusions of Law

Based on the foregoing analysis, and in accordance with OAR 345-022-0090(2), the Council imposes Historic, Cultural, and Archeological Resources Condition 1 through 5 in the site certificate to address the protection of historic, cultural, and archaeological resources at the facility site.

IV.L. Recreation [OAR 345-022-0100]

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

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

(b) The degree of demand;

(c) Outstanding or unusual qualities;

(d) Availability or rareness;

(e) Irreplaceability or irretrievability of the opportunity.

***309

Findings of Fact

The Recreation standard requires the Council to find that the design, construction and operation of a facility are not likely to result in significant adverse impacts to 'important' recreational opportunities. Therefore, the Council's Recreation standard applies to only those recreation areas that the Council finds "important" using the factors listed in the sub-paragraphs of section (1) of the standard. The project order identified the analysis area for the Recreation standard as the area within and extending five miles from the site boundary. The applicant provided evidence about potential impacts to recreation opportunities determined by the applicant to be important in Exhibit T of the ASC.

OAR 345-022-0100 requires the Council to determine that the design, construction and operation of the proposed facility will not have a significant adverse impact to any recreational opportunities in the analysis area. OAR 345-001-0010(53) defines "significant" as:

³⁰⁹ The proposed facility is not a special criteria facility under OAR 345-015-0310; therefore OAR 345-022-0100(2) is not applicable.

1
2 “having an important consequence, either alone or in combination with other factors, based
3 upon the magnitude and likelihood of the impact on the affected human population or
4 natural resources, or on the importance of the natural resources affected, considering the
5 context of the action or impact, its intensity and the degree to which possible impacts are
6 caused by the proposed action. Nothing in this definition is intended to require a statistical
7 analysis of the magnitude or likelihood of a particular impact.”
8

9 To analyze the facility against this standard, the Council must first evaluate whether the
10 identified recreational opportunity is important. The Council must then evaluate whether the
11 design, construction or operation of the proposed facility could adversely impact the identified
12 important recreational opportunity. If the proposed facility could adversely impact the
13 resource, then the Council must consider the significance of the possible impact using the
14 definition of significance above.
15

16 In Exhibit T, the applicant identified 15 recreation opportunities within the analysis area and
17 concluded, based on its evaluation of the criteria outlined in OAR 345-022-0100, that six
18 recreation opportunities should be considered “important.” The applicant concluded that the
19 remaining nine recreation opportunities within the analysis area did not meet the “important”
20 criteria based on the applicant’s assessment as follows:
21

- 22 • Willow Creek Dam/Reservoir: The Willow Creek Dam/Reservoir is a federally managed
23 flood control dam with opportunities for fishing, boating and swimming although has
24 experienced ongoing water quality issues, and subsequently low use demand. The dam
25 is somewhat irreplaceable but is one of several in the region.
26
- 27 • Hager Park: Hager Park is a city-owned park with a playground and open activity area,
28 with low use demand.
29
- 30 • Heritage Park: Heritage Park is a city-owned park with open space but no developed
31 recreation facilities, with low use demand.
32
- 33 • Heppner City Park: Heppner City Park is a city-owned park with a playground and
34 restrooms, with low use demand.
35
- 36 • Willow Creek RV Park: Willow Creek RV Park is a privately-owned commercial RV park
37 with opportunities for utility hook-up, restrooms, showers, BBQ pits, picnic tables, tent
38 camping, and a boat launch, with low to moderate use demand.
39
- 40 • Willow Creek Country Club: Willow Creek Country Club is a privately-owned country
41 club and golf course, with low to moderate use demand.
42

- 1 • Social Ridge Access Area: Social Ridge Access Area is privately-owned land where land
2 owners permit public hunting, with low to moderate use demand.
3
- 4 • Bunker Hill Access Area: Bunker Hill Access Area is privately-owned land where land
5 owners permit public hunting, with low to moderate use demand.
6
- 7 • Rolling Hills Hunting Preserve: Rolling Hills Hunting Preserve is privately-owned land
8 with uncommon commercial hunting opportunities for game birds, with low to
9 moderate use demand.
10

11 The Council concurs with the applicant that, based on the moderate to low demand and
12 common, generally replaceable attributes of each of these recreation opportunities, none of
13 these opportunities meet the criteria to be considered an important recreational opportunity.
14

15 The applicant's analysis concluded that the following recreation areas should be considered
16 "important" based on the Council's criteria:
17

18 Federally Managed Areas:
19

20 Oregon National Historic Trail High-Potential Segment 21

22 As explained in Exhibit T, the Oregon Trail High-Potential Segment is designated as an Oregon
23 National Historic Trail segment and is federally managed under the 1999 NPS Management
24 Plan. The trail segment is located approximately 1.2 miles from the site boundary. The trail
25 segment includes historic significance, presence of visible historic remnants, scenic quality, and
26 relative freedom from intrusion. The applicant explained that the trail segment is irreplaceable,
27 with a low rate of demand. The applicant proposed that the trail segment is an important
28 recreational opportunity due to its management under a federal plan, special designation, its
29 irreplaceable historic significance, and its rare views of historic remnants (i.e. intact wagon rut).
30 The Council finds that the Oregon National Historic Trail High-Potential Segment is an important
31 recreational resource as defined by OAR 345-022-0100(1) due to its management under a
32 federal plan, special designation and irreplaceable qualities.
33

34 Oregon Trail Well Spring Interpretive Site 35

36 As explained in Exhibit T, the Oregon Train Well Spring Interpretive Site is designated as an
37 Oregon National Historic Trail interpretive site and is federally managed under the 1999 NPS
38 Management Plan. The interpretive site is located approximately 1.2 miles from the site
39 boundary. The interpretive site offers views of intact wagon ruts, a graveyard and remains of a
40 stage station with informational signage. As explained in Exhibit T, the interpretive site was an
41 important, historically significant emigrant water source and campsite that is considered
42 irreplaceable. The applicant identified the site as irreplaceable, with a low rate of demand. The
43 applicant proposed that the interpretive site is an important recreational opportunity due to its
44 management under a federal plan, special designation, and irreplaceable and rare views of an

1 intact wagon rut, graveyard, and remains of a stage station. The Council finds that the Well
2 Spring Interpretive Site is an important recreational resource as defined by OAR 345-022-
3 0100(1) due to its management under a federal plan, special designation and irreplaceable
4 qualities.

6 Echo Meadows Site

8 Exhibit T explained that the Echo Meadows site is managed by BLM as an Area of Critical
9 Environmental Concern (ACEC) and is designated as an Oregon National Historic Trail
10 interpretive site. The site is located approximately 2.7 miles from the site boundary. As
11 explained in Exhibit T, the site offers views of historically significant intact wagon ruts, along
12 with interpretive signs about the area and its history. The applicant identified that the site is
13 irreplaceable, with a low rate of demand. The applicant identified the site as an important
14 recreational opportunity due to its management under a federal plan, special designation, and
15 it's irreplaceable and rare views of intact wagon ruts. The Council finds that the Echo Meadows
16 site is an important recreational resource as defined by OAR 345-022-0100(1) due to its
17 management under a federal plan, special designation and irreplaceable qualities.

19 *State Managed Areas*

21 OR-74

23 In Exhibit T, the applicant explained that OR-74 is a state highway route segment within the
24 Blue Mountain Scenic Byway, designated as an Oregon State Scenic Byway and managed under
25 the United States Forest Service's (USFS) 1993 Blue Mountain State Scenic Byway management
26 plan. The route segment is located approximately 2.6 miles from the site boundary and
27 traverses approximately 21 miles within the analysis area. The route segment offers diverse
28 scenery including those of historic towns, a national forest, rocky peaks, and streams. The
29 applicant stated that the route segment within the analysis area is somewhat irreplaceable,
30 with a moderate rate of demand. The applicant proposed that the route segment is an
31 important recreational opportunity due to its management under a federal plan and special
32 designation as an Oregon State Scenic Byway. The Council finds that the OR-74 route segment
33 within the analysis area designated as an Oregon State Scenic Byway is an important
34 recreational resources as defined by OAR 345-022-0100(1) due to its special designation as well
35 as its somewhat irreplaceable qualities and moderate rate of demand.

37 *Local Governments*

39 Morrow County Fairgrounds

41 In Exhibit T, the applicant explained that the Morrow County Fairgrounds is a county fairground
42 that includes a large riding/competition ring, stockyards, barns, grandstand, multipurpose sport
43 field and other facilities. The fairgrounds are located approximately 3 miles from the site
44 boundary. The applicant identified that the fairgrounds are uncommon within the county, with

1 a moderate rate of demand. The applicant proposed that the fairgrounds are an important
2 recreational opportunity because they are uncommon and provide a location for the County
3 Fair and other agricultural- and ranching-related events that are important aspects of social and
4 business life within the community. The Council finds that Morrow County Fairgrounds are an
5 important recreational resource as defined by OAR 345-022-0100(1) due to their rareness and
6 moderate rate of demand.

7 8 Willow Creek Water Park 9

10 As explained in Exhibit T, Willow Creek Water Park is a city-owned public pool with recreational
11 opportunities for swimming. The pool is located approximately 3 miles from the site boundary.
12 The applicant identifies that the pool is uncommon within the community, with a moderate
13 rate of demand. The applicant contended that the pool is an important recreation opportunity
14 because it is uncommon within the region. While the recreational opportunity offers
15 opportunities for swimming, the Willow Creek Dam/Reservoir located within the analysis area
16 also offers opportunities for swimming. Therefore, it does not appear that public swimming
17 opportunities are rare within the region, and the Council does not agree that that the water
18 park satisfies the criteria to be an important recreational opportunity as defined in OAR 345-
19 022-0100(1) based solely on that factor. However, in the alternative, the Council includes it in
20 the evaluation of compliance with the Council's Recreation Standard.

21 22 *Impacts to Important Recreational Opportunities* 23

24 OAR 345-021-0010(1)(t) requires the applicant to evaluate potential impacts to important
25 recreational opportunities based on both direct and indirect loss, and on noise, traffic and
26 visual impacts resulting from construction and operation of the proposed facility. OAR 345-022-
27 0100(1) requires that the Council find that the construction and operation of the facility, taking
28 into account mitigation, are not likely to result in a significant adverse impact to important
29 recreation opportunities.

30 31 *Direct Loss* 32

33 A direct loss occurs when construction or operation of a proposed facility would impact a
34 recreational opportunity by directly altering the resource so that it no longer exists in its
35 current state. The facility, which is located entirely on private property, would not be located
36 on or within any of the important recreational opportunities identified above. Therefore, the
37 Council finds that the facility would not result in direct loss of any of the recreational
38 opportunities identified as important.

39 40 *Indirect Loss* 41

42 The Council evaluates the potential indirect loss based potential noise, traffic, and visual
43 impacts resulting from construction and operation of the facility.
44

Noise

As explained in Exhibit X of the ASC, and as discussed in Section IV.R, *Noise Control Regulations* of this order, construction of the facility would result in short-term increases in noise levels. As discussed further in Section IV.R, the DEQ noise rules address compliance at identified “noise sensitive receptors.” The recreational opportunities closest to the facility site boundary are not designated noise-sensitive receptors. Therefore, there are no applicable noise requirements contained in the DEQ noise regulations addressed at OAR Chapter 340, Division 25. However, the applicant’s evaluation of compliance with these regulations is relevant in considering the potential impacts of the proposed facility on recreational opportunities in the analysis area.

As discussed in more detail in Section IV.R, under the noise regulations at OAR 340-035-0035, the facility is considered a new “industrial or commercial noise source on a previously unused industrial or commercial site.” As allowed for a “wind energy facility,” under OAR 340-035-0035(1)(b)(B), the applicant may assume that the “L50” ambient sound level is 26 A-weighted decibels (dBA) when demonstrating that the facility would not exceed the 10 dBA “ambient degradation” limit.

The closest recreational opportunities identified as “important” to the facility are the Oregon Trail High-Potential segment and the Oregon Trail Well Spring Interpretive Site located approximately 1.2 miles from the site boundary. Noise generated during construction of the facility would be short-term and intermittent and would not exceed 34 dBA at the closest recreation opportunities. Exhibit T states that noise levels of 34 dBA would be comparable in volume to a quiet library. Based on the noise analysis conducted for the facility, worst-case operational noise from the proposed facility, including wind turbine generators and the 230-kV intraconnection transmission line(s), would be as high as 31 dBA. The remaining four recreational opportunities identified as important would be located greater than two miles from the site boundary and therefore would experience lesser worst-case noise levels due to attenuation of 26 dBA or less during facility operations. As stated in Exhibit T, a noise level of 31 dBA is comparable in volume to a whisper and could be discernable from background noise when wind is blowing.

Due to the distances between the closest “important” recreational opportunities and the facility and associated noise attenuation, the Council finds that the noise generated by the construction and operation of the facility is not likely to result in significant adverse noise impacts to any of the recreational opportunities identified as “important.”

Traffic

Interstate Highway 84 (I-84) and Oregon Highway 207 (OR-207) are the primary access corridors that would be used during construction and operation of the facility. As explained in Exhibit U of the ASC, major county roads that may be temporarily affected by traffic increases from construction vehicles accessing the site include: Bombing Range Road, Big Butter Creek Road,

1 Little Butter Creek Road, Baseline Road, Juniper Lane, Strawberry Lane, and Sand Hollow Road
2 in Morrow County.

3
4 The applicant stated in Exhibit T that access to the Oregon Trail Well Spring Interpretive Site
5 and Echo Meadows/Oregon Trail ACEC could be impacted from temporary traffic increases
6 during construction of the facility. The applicant identified that access to the Well Spring
7 Interpretive Site from the east most likely involves travel on OR-207 and/or Bombing Range
8 Road and Little Juniper Canyon Road; all of these would be used during construction of the
9 proposed facility.

10
11 The applicant explained that access to the Echo Meadows site is primarily from a gravel road
12 extending north from Oregon Trail Road, which intersects with I-84 to the east at Echo, and
13 with OR-207 to the west. The gravel road continues north past the proposed facility site and
14 joins with several other east-west gravel roads, e.g. Curtis Road, that in turn access OR-207 or
15 wind eastward toward Echo or Stanfield. The applicant further explained that Oregon Trail Road
16 and OR-207 would be most affected during the morning peak hours, when visitors are unlikely
17 to arrive at the Echo Meadows site; for the remainder of the day truck trips would be sporadic
18 and unlikely to cause any delays.

19
20 The applicant concluded that the volume of construction traffic on roads also used to access
21 the Oregon Trail Well Spring Interpretive Site and Echo Meadows/Oregon Trail ACEC would be
22 unlikely to materially affect the operation of this intersection, and states that the applicant
23 would work with ODOT and the counties to provide any necessary traffic controls. In addition,
24 as presented in Exhibit U, construction of the facility would not cause an appreciable reduction
25 in Level of Service (LOS) on any roads in the area.

26
27 During operation of the facility, 10 to 20 staff would be employed thus generating a small
28 number of vehicle trips on a roadway system with low traffic volumes.³¹⁰ Therefore, expected
29 traffic impacts to “important” recreation opportunities in the analysis area during operation of
30 the facility would be minimal.

31 Based on the applicant’s analysis of the traffic impacts, the Council finds that the traffic
32 generated by the construction and operation of the facility is not likely to result in significant
33 adverse impacts to any of the recreational opportunities identified as “important.”

34 35 *Visual Impacts*

36
37 To analyze visual impacts resulting from the proposed facility, the applicant conducted a ZVI, or
38 viewshed, analysis. Based upon that analysis, the applicant determined that some portions of
39 the facility would be visible from four of the six important recreation opportunities including:

³¹⁰ ASC, Exhibit T, p. 16.

1 Oregon National Historic Trail, Well Spring Interpretive Site, Echo Meadows/Oregon Trail ACEC,
2 and Blue Mountain Scenic Byway.³¹¹

3
4 For the visual analysis, the potential visibility of turbines was based on an assumed 110 percent
5 maximum blade tip height ranging from 474 to 525 feet, depending on the turbine model
6 option selected. Potential visual impacts from the proposed facility at these four recreational
7 opportunities are evaluated further below.

8 9 Blue Mountain Scenic Byway

10
11 The ZVI analysis for the Blue Mountain Scenic Byway indicates that fewer than 20 turbines
12 would be visible at limited points along the highway at middle- to background viewing distances
13 of at least 3 miles. The applicant explained that there is no management direction for
14 preservation of views or scenic quality related to the private lands on which the proposed
15 facility would be located and through which the byway runs. As explained in Exhibit T, views of
16 the facility would not compromise the integrity of the Scenic Byway route; would not affect way
17 finding between the towns and sites along the route; would have no direct impacts to the
18 historic properties or historic districts for which the towns are known; and would not affect
19 programs or activities at the destination sites geared toward increasing tourism along the
20 Byway. Therefore, significant adverse visual impacts from the facility would not be expected at
21 this important recreation opportunity.

22 23 Oregon National Historic Trail

24
25 The ZVI analysis for the Oregon National Historic Trail indicates that more than 150 turbines
26 would be visible depending on location along the route. As explained in Exhibit T, the trail
27 segment is neither considered nor managed as a significant or important scenic resource. The
28 applicant asserted that the overall visual impact would be negligible because there are virtually
29 no viewers to be affected and the existing viewshed contains wind turbines and other industrial
30 infrastructure.

31 32 Oregon Trail Well Spring Interpretive Site

33
34 The ZVI analysis for the Oregon Trail Well Spring Interpretive Site indicates that 50 to 150
35 turbines would be visible from a middle ground distance of approximately 1.2 miles. However,

³¹¹ On the record of the public hearing, Mr. G. Harrison indicated a concern related to visual impacts of the proposed facility's turbines, roads, and other disturbances on the Willow Creek Campground and Fourmile Canyon, which were not identified by the applicant in ASC Exhibit T as recreation areas within the analysis area. On the record of the June 6, 2016 public hearing, on behalf of the applicant D. Petersen stated that the Willow Creek Campground was located at least 15 miles away from the closest site boundary location, not within the analysis area. Based on the department's evaluation, Fourmile Canyon is located west of Cecil, which as presented in ASC Exhibit C Figure C-3, and would not be located within the analysis area. The department further noted that visual impacts from recreation opportunities located outside of the analysis area, defined as within and extending 5-miles from the site boundary, are not required to be evaluated in an ASC. WRWAPPDoc72 DPO Public Comment_G. Harrison 2016-05-19; WRWAPPDoc85 Public Comment (Applicant)_D. Petersen 2016-06-06.

1 the applicant explained that turbines would not intervene in views northward from the Well
2 Spring kiosk to the remaining evidence of the trail within the Bombing Range. The remaining
3 evidence of the Oregon Trail at the Well Spring site would not be disturbed by proposed facility
4 turbines, allowing visitors to continue their enjoyment of the history of the site. Moreover, the
5 site is managed to maintain the history and historic artifacts associated with the Oregon Trail,
6 rather than for its scenic qualities. The applicant stated that there is no management direction
7 for preservation of views or scenic quality related to the lands on which the site or the
8 proposed facility is located. Therefore, significant adverse visual impacts from the facility would
9 not be expected at this important recreation opportunity.

11 Oregon Trail Area of Critical Environmental Concern (ACEC), Echo Meadows

13 The ZVI analysis for the Oregon Trail ACEC, or Echo Meadows, indicates that 50 to 150 turbines
14 would be visible from 2.3 to 6.2 miles from the viewpoint (KOP 3) (2.8 to 6.7 miles from the
15 ACEC); the nearest turbines would be at least 3.1 miles from the remaining Oregon Trail ruts
16 within the site. The applicant explained that existing views include evident vertical
17 modifications including a power line, irrigation pivots, and existing wind turbines in the
18 background, and the viewing distance is relatively long, reducing the apparent size of the
19 turbines. The facility would not generate emissions or plumes that could cause a visual impact.

21 On the record of the public hearing, Mr. G. Harrison raised issues regarding the visual impact of
22 the proposed facility's turbines, roads, and other disturbances on protected areas including
23 Echo Meadows and the historic Oregon Trail.³¹² As stated above, the Protected Areas standard
24 requires the Council to find that, taking into account mitigation, the design, construction and
25 operation of a facility are not likely to result in significant adverse impacts to 'important'
26 recreational opportunities. The Council's standard requires a finding that a proposed facility is
27 not likely to have a significant adverse impact, but does not require a finding that a proposed
28 facility is unlikely to have any adverse impacts. As explained in Exhibit T, this site receives fairly
29 low levels of public use and contains no facilities beyond the paved trail and some information
30 signs. The applicant stated that there is no management direction for preservation of views or
31 scenic quality applicable to the lands on which the proposed facility is located. Therefore,
32 significant adverse visual impacts from the facility would not be expected at this important
33 recreation opportunity.

35 Because of the distance between the important recreational opportunities (ranging from 1.2 to
36 2.6 miles) and the proposed facility, the short route or trail segment for which turbines would
37 be visible, as well as the existing visual character of the region and the lack of emissions or
38 plumes, the department agrees that the construction and operation of the proposed facility
39 would not likely result in a significant adverse visual impacts to any of the important
40 recreational opportunities within the analysis area. Scenic Resources Condition 1, Scenic
41 Resources Condition 2, and Land Use Condition 9 would minimize the potential visual impacts
42 of the proposed facility structures from the identified important recreational areas.

³¹² WRWAPPDoc72 DPO Public Comment_G. Harrison 2016-05-19

1 Based on the applicant's analysis, the Council finds that the visual impacts of the construction
2 and operation of the facility would not be likely to result in significant adverse impacts to any of
3 the recreational opportunities identified as "important."

4 5 **Conclusions of Law**

6
7 Based on the foregoing, the Council finds that the design, construction and operation of the
8 facility are not likely to result in a significant adverse impact to any important recreational
9 opportunities in the analysis area and therefore the facility complies with the Council's
10 Recreation standard.

11 12 **IV.M. Public Services [OAR 345-022-0110]**

13
14 *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the*
15 *Council must find that the construction and operation of the facility, taking into account*
16 *mitigation, are not likely to result in significant adverse impact to the ability of public*
17 *and private providers within the analysis area described in the project order to provide:*
18 *sewers and sewage treatment, water, storm water drainage, solid waste management,*
19 *housing, traffic safety, police and fire protection, health care and schools.*

20
21 *(2) The Council may issue a site certificate for a facility that would produce power from*
22 *wind, solar or geothermal energy without making the findings described in section (1).*
23 *However, the Council may apply the requirements of section (1) to impose conditions on*
24 *a site certificate issued for such a facility.*

25 ***

26 Pursuant to OAR 345-022-0110 (2), the Council may issue a site certificate for a wind energy
27 without making findings regarding the public services standard; however, the Council may
28 impose site certificate conditions based upon the requirements of the standard.

29 30 **Findings of Fact**

31
32 The Council's Public Services standard requires the Council to identify likely significant adverse
33 impacts on the ability of public and private service providers to supply sewer and sewage
34 treatment, water, stormwater drainage, solid waste management, housing, traffic safety, police
35 and fire protection, health care, and schools. The analysis area for public services is the area
36 within and extending 10-miles from the site boundary. The applicant addressed the impacts to
37 public services in Exhibit U of the ASC.

38
39 The applicant estimated that the facility would employ an average of 240 people during
40 construction, with an estimated maximum of 360 people during peak summer construction
41 months. The applicant stated that approximately 70% of the construction workforce would
42 come from outside the analysis area. The applicant estimated that during operations, there

would be approximately 10 to 15 permanent employees. The applicant assumed that the facility would be in operation for at least 30 years.³¹³

Sewers and Sewage Treatment

The applicant does not propose to connect to any public sewer or sewage treatment facility.³¹⁴ During construction, the applicant intends to collect sanitary wastes onsite in portable toilets, to be provided and maintained by a licensed subcontractor.³¹⁵

As stated in Exhibit U, the applicant intends to utilize a licensed onsite septic system to serve the domestic wastewater disposal needs at the Operations and Maintenance Buildings.³¹⁶ To ensure minimal impacts on the sewage and solid waste services provided by surrounding communities, the Department recommends the Council adopt the following condition:

Public Services Condition 1: During operation of the facility, the certificate holder shall discharge sanitary wastewater generated at the O&M buildings to licensed on-site septic systems in compliance with State permit requirements. The certificate holder shall design each septic system for a discharge capacity of less than 2,500 gallons per day.

Based upon the applicant's proposal for waste disposal and the condition recommended above, the Council finds that the construction and operation of the facility are not likely to result in significant adverse impacts to the ability of service providers to provide for waste disposal.

Water Supply

The applicant estimated that approximately 56.5 million gallons of water would be needed during construction, primarily for making concrete for wind turbine foundation construction and for dust control. The applicant estimated that under a "worst case" scenario, construction activities could require up to 78 million gallons of water.³¹⁷ As discussed in Section IV.T, *Water Rights*, the applicant is not requesting a groundwater permit, a surface water permit, a water rights transfer, or any other specific water use license.

The applicant stated that it would obtain water for construction activities from permitted municipal sources with adequate water rights, and provides copies of written correspondence with the Port of Morrow and the Public Works Departments of Hermiston, Stanfield, and

³¹³ ASC, Exhibit U, p. U-3.

³¹⁴ The nearest developed sewer system identified by the applicant is located in the city of Heppner, approximately five miles from the Site Boundary. ASC, Exhibit U, p. 11.

³¹⁵ ASC, Exhibit U, p. U-11.

³¹⁶ ASC, Exhibit U, p. U-11.

³¹⁷ As discussed in ASC, Exhibit O, p. 3, the worst case scenario would be an especially dry and hot year, necessitating more water used for dust control.

Boardman, all of which indicate their capacity to cumulatively provide sufficient water supply for facility construction.³¹⁸ The Port of Morrow alone states that it expects to be able to provide up to 6.5 million gallons of water per month, which would be more than the applicant expects to need under the worst-case scenario.³¹⁹

The applicant proposed to supply water for operations from an exempt well to be drilled at each of the O&M Buildings.³²⁰ As also discussed in Section IV.T *Water Rights*, an onsite well drawing less than 5,000 gallons per day does not require a water right permit.³²¹ To ensure compliance with statutory and public service provider requirements, the Council imposes the following condition:

Public Services Condition 2: Except as provided in this condition, during facility operation, the certificate holder shall obtain water for on-site uses from on-site wells located near the O&M buildings. The certificate holder shall construct on-site wells subject to compliance with the provisions of ORS 537.765 relating to keeping a well log. The certificate holder shall not use more than 5,000 gallons of water per day from each of the two on-site wells. The certificate holder may obtain water from other sources for on-site uses subject to prior approval by the Department.

In addition, the Oregon Water Resources Department (OWRD) requires owners of exempt wells to meet certain requirements to ensure protection of groundwater quantity and quality. The site certificate holder would be subject to those OWRD requirements independent of the site certificate.

Based upon the applicant's proposed water sources and compliance with Public Services Condition 2, the Council finds that the construction and operation of the facility are not likely to result in significant adverse impacts to the ability of water service providers to provide water.

Stormwater Drainage

With the exception of minimal stormwater drainage facilities associated with public roads maintained by Morrow and Umatilla counties, the nearest developed stormwater drainage facilities identified by the applicant are located approximately five miles from the Site Boundary, in the cities of Heppner and Lexington.³²² The applicant stated in Exhibit U that stormwater runoff would be managed onsite through the use of roadside ditches, infiltration swales, and retention basins.³²³

³¹⁸ ASC, Exhibit U, pp. 11-12.

³¹⁹ ASC, Exhibit O, Table O-1, p. 5 and Attachment O-4.

³²⁰ ASC, Exhibit U, p. 12.

³²¹ ORS 537.545(1)(f).

³²² ASC, Exhibit U, p. 4.

³²³ ASC, Exhibit U, p. 12.

As described in Exhibit I and discussed in Section IV.D, *Soil Protection* of this order, stormwater management during construction would be conducted in compliance with an NPDES 1200-C stormwater construction permit and associated Erosion and Sediment Control Plan.³²⁴ Soil Protection Condition 1 requires the applicant to comply with the requirements of the NPDES permits and approved Erosion and Sediment Control Plan and Soil Protection Condition 2 requires the use of best management practices to control runoff.

The applicant stated that the facility would not affect the provision of stormwater management services by any public agency.³²⁵

Based on conditions described in Section IV.D, *Soil Protection* of this order and on the applicant's proposed development and anticipated impact on stormwater facilities, the Council finds that the construction and operation of the facility are not likely to result in significant adverse impacts on county stormwater management.

Solid Waste Management

The applicant proposed to dispose of solid waste for the facility during construction and operations through a private contract with a local commercial hauler or haulers. As presented in Exhibit V of the ASC, the applicant indicated that up to 9,000 cubic yards of solid waste would be generated during the construction period and up to 6 cubic yards per month would be generated during operations.³²⁶ The public landfill closest to the facility site boundary is the Finley Buttes Regional Landfill, located approximately 10 miles south of Boardman, Oregon.³²⁷ The applicant has provided a copy of correspondence with the sales manager at Finley Butte Landfill confirming that the landfill has the capacity to accept solid waste generated by facility construction and operation.³²⁸

The applicant proposed to minimize the generation of construction waste by estimating material needs and employing construction practices including orderly waste collection and consolidation at construction yards; segregating waste and recyclable materials; and utilizing appropriately sized containers equipped with fitted lids.³²⁹ When feasible, the applicant proposed to reuse or recycle the waste generated during construction (such as steel scraps from turbine foundations and wood from concrete forms). Excess excavated material would be used to restore ground contours after construction, and any excess concrete would be incorporated into the turbine foundations, rather than disposed.³³⁰ To ensure the minimization and proper disposal of solid wastes, the Council adopts Waste Minimization Conditions 1 and 2, which require the applicant

³²⁴ The applicant stated in ASC, Exhibit E, p. 19 that the mobile concrete batch plants are expected to be covered by the proposed facility's overall NPDES permit instead of having independent permits.

³²⁵ ASC, Exhibit U, p. 12.

³²⁶ ASC, Exhibit V, pp. 2-3.

³²⁷ ASC, Exhibit U, p. 4.

³²⁸ ASC, Exhibit U, Attachment U-7.

³²⁹ ASC, Exhibit V, pp. 3-4 and 9.

³³⁰ ASC, Exhibit G, p. 9.

1 to ensure proper disposal of excess soil and to implement a solid waste management plan
2 during construction. In addition, to ensure minimal impacts on the solid waste services
3 provided by surrounding communities, the Council imposes the following conditions:

4
5 **Public Services Condition 3:** During construction, the certificate holder shall include the
6 following additional measures in the construction waste management plan required by
7 Waste Minimization Condition 2:

- 8 a. Recycling steel and other metal scrap.
- 9 b. Recycling wood waste.
- 10 c. Recycling packaging wastes such as paper and cardboard.
- 11 d. Collecting non-recyclable waste for transport to a local landfill by a licensed
12 waste hauler or by using facility equipment and personnel to haul the waste.
13 Waste hauling by facility personnel within Morrow County shall be performed in
14 compliance with the Morrow County Solid Waste Management Ordinance, which
15 requires that all loads be covered and secured.
- 16 e. Segregating all hazardous and universal wastes such as used oil, oily rags and oil-
17 absorbent materials, mercury-containing lights and lead-acid and nickel-
18 cadmium batteries for disposal by a licensed firm specializing in the proper
19 recycling or disposal of hazardous and universal wastes.
- 20 f. Discharging concrete truck rinse-out within foundation holes, completing truck
21 wash-down off-site, and burying other concrete waste as fill on-site whenever
22 possible.

23
24 **Public Services Condition 4:** During operation, the certificate holder shall implement a
25 waste management plan that includes but is not limited to the following measures:

- 26 a. Training employees to minimize and recycle solid waste.
- 27 b. Recycling paper products, metals, glass, and plastics.
- 28 c. Recycling used oil and hydraulic fluid.
- 29 d. Collecting non-recyclable waste for transport to a local landfill by a licensed
30 waste hauler or by using facility equipment and personnel to haul the waste.
31 Waste hauling by facility personnel within Morrow County shall be performed in
32 compliance with the Morrow County Solid Waste Management Ordinance, which
33 requires that all loads be covered and secured.
- 34 e. Segregating all hazardous and universal, non-recyclable wastes such as used oil,
35 oily rags and oil-absorbent materials, mercury-containing lights and lead-acid
36 and nickel-cadmium batteries for disposal by a licensed firm specializing in the
37 proper recycling or disposal of hazardous and universal wastes.

38
39 The applicant stated that it would coordinate with waste and recycling franchisees servicing the
40 proposed facility to maintain records required by Morrow County's Solid Waste Management
41 Ordinance.³³¹ In its August 31, 2015 ASC comment letter, Morrow County requested that the

³³¹ ASC, Exhibit U, p. 13.

1 Council adopt a condition to ensure that the applicant supports Morrow County waste shed
2 reporting and goals.³³² Accordingly, the Council imposes the following condition with
3 administrative changes included in the proposed order clarifying that the requirements would
4 apply during both construction and operation:
5

6 **Public Services Condition 5:** During construction and operation, the certificate holder
7 shall coordinate with its solid waste handler to provide the information solicited through
8 the Oregon Department of Environmental Quality's Recycling Collector Survey to the
9 Morrow County waste shed representative on an annual basis.
10

11 Based on the applicant's proposed methods for solid waste management and the findings and
12 conditions recommended above, the Council finds that the construction and operation of the
13 facility are not likely to result in significant adverse impact to the ability of public or private
14 service providers to provide solid waste management.
15

16 *Housing* 17

18 The applicant estimated that during construction the facility would employ an average of 240
19 workers, with an estimated maximum of 360 workers employed during peak summer
20 construction months. The applicant stated that the majority of the construction workforce (70%)
21 would come from outside the analysis area; therefore, construction of the facility would require
22 temporary housing for an average of 168 construction workers and an estimated peak of
23 approximately 252 workers who would be temporary residents in the area. Typical housing
24 options for temporary workers include hotels or motels, apartments, short-term rental homes,
25 and campgrounds, or other areas where workers can park mobile housing (e.g., trailers or
26 RVs).³³³
27

28 The applicant anticipated that most construction workers would not be in the area for more
29 than 6 to 12 months.³³⁴ The applicant further anticipated that construction workers that would
30 come from outside the analysis area would have the option of finding temporary housing in
31 various communities within Morrow and Umatilla counties within commuting distance of the
32 site boundary, including Lexington, Lone, Heppner, Boardman, Hermiston, Irrigon, Pendleton,
33 and Umatilla, and potentially other communities at a greater distance.³³⁵
34

35 Based on the total number of hotel and motel rooms in Morrow and Umatilla counties and on
36 statewide average occupancy rates, the applicant estimates that, on average, between 680 and
37 1,141 hotel and motel rooms (with the lower end of the range coinciding with increased
38 temporary housing demand during the summer tourism season) would likely be available in
39 Morrow and Umatilla counties during the construction period. Based on 2010 US Census data,

³³² WRWAPPDOC42, SAG Comment Morrow County, 08-31-2015.

³³³ ASC, Exhibit U, pp. 2 and 13.

³³⁴ ASC, Exhibit U, p. 3.

³³⁵ ASC, Exhibit U, p. 5.

1 the applicant estimated that 1,184 housing units would likely be available for rent in Morrow
2 and Umatilla counties. Based upon this information, the applicant asserted that there would be
3 an adequate supply of available housing for the temporary influx of construction workers, and
4 therefore construction of the facility would not have a significant adverse impact on available
5 housing.³³⁶

6
7 During operations, the applicant estimated there would be approximately 10 to 15 permanent
8 employees, with most of these employees hired locally, to the extent that skilled workers are
9 available.³³⁷ Given the current and anticipated vacancies, the applicant concluded that the
10 permanent operational workforce would not have a substantial adverse impact on housing in
11 the analysis area.³³⁸

12
13 Based upon these considerations, the Council finds that the construction and operation of the
14 facility are not likely to result in significant adverse impacts to the ability of public and private
15 housing providers to provide housing.

16 *Traffic Safety*

17 Transportation Routes

18
19 The Oregon Department of Transportation is the provider of transportation services for state
20 highways. The applicant identified the public works departments for Umatilla and Morrow
21 counties as the providers of transportation services for county roads in the vicinity of the
22 proposed facility. The applicant identified its primary transportation route for construction-
23 related traffic to be I-84 and OR-207, and indicated that the following major county roads
24 would convey significant amounts of construction traffic: Bombing Range Road, Big Butter
25 Creek Road, Little Butter Creek Road, Baseline Road, Juniper Lane, Strawberry Lane, and Sand
26 Hollow Road in Morrow County. Private roads may also see increases in traffic, and the
27 applicant proposes to construct additional private access roads to each of the wind turbines
28 and associated facilities.³³⁹

29
30 As described in Exhibit U and as shown in Figure U-2, some of the county or local roads would
31 require upgrading to accommodate the truck traffic associated with the wind farm
32 construction, including widening, replacing cattle guards, replacing or adding cover to culverts,
33 or adding road base aggregate to the existing roads.³⁴⁰

34
35
36
37

³³⁶ In ASC, Exhibit U, pp. 13 and 14, the applicant provided evidence indicating that adequate housing would still be available even if other planned and approved energy facilities were to be constructed at the same time as the proposed Wheatridge Wind Energy Facility.

³³⁷ ASC, Exhibit U, p. 3.

³³⁸ ASC, Exhibit U, p. 13.

³³⁹ ASC, Exhibit U, p. 6.

³⁴⁰ ASC, Exhibit U, p. 9.

Traffic Volume and Type—Construction and Operations

Using estimates derived from similar wind developments, the applicant estimated that over the 18 month construction period, and assuming an average of 24 working days per month, construction activities from the wind farm development would generate an average of 74 daily round trips, and construction of the intraconnection line would generate approximately 26 round trips per day. The applicant estimated that during the 6 months when construction of the intraconnection Line and the wind farm would occur concurrently, and accounting for peak periods, the primary transportation routes would experience facility-related truck traffic of an estimated maximum of 125 round trips per day (250 one-way trips) for 24 days of construction per month. Vehicle traffic during construction would include water trucks and deliveries of on-site construction equipment, turbine components, and civil construction and material supply for road work and turbine foundations. Construction worker traffic could generate an additional 192 round trips per day (384 one-way trips), with that number increasing to 288 round trips per day (576 one-way trips) during the peak construction period.³⁴¹

Truck traffic during operations would be minimal, except for periods of maintenance activities that might require deliveries of large equipment. The applicant stated that operational traffic generation, including from worker trips associated with the estimated 10 to 20 permanent staff for the facility, would be minimal.³⁴²

Traffic Impacts and Proposed Mitigation

To evaluate projected traffic impact, the applicant examined data on existing and projected future traffic volumes and LOS published in the 2012 Morrow County Transportation System Plan and the 2002 Umatilla County Transportation System Plan. Exhibit U, Table U-4 provides a summary of current traffic volumes and LOS conditions, as well as projected traffic volumes and service levels with project construction traffic at 11 points (transportation gates) on the surrounding road network; the transportation gates are shown on Figure U-1.³⁴³

While most construction traffic (both truck and personal vehicle traffic) would travel on I-84 to reach the site, the applicant indicates that even with the addition of the estimated 825 trips per day at peak construction times, the I-84 would continue to operate below the volume-to-capacity performance standard set by Oregon Department of Transportation.³⁴⁴

As shown in Exhibit U Table U-4, the applicant anticipated that the projected LOS with construction traffic (LOS A) would be the same as the current peak hour LOS for all area roads accessed by construction traffic, with one exception. The intersection of Oregon Trail Road with OR-207 currently operates at LOS A, but is projected to operate at LOS D by 2018, with long

³⁴¹ ASC, Exhibit U, pp. 14-15.

³⁴² ASC, Exhibit U, p. 15.

³⁴³ ASC, Exhibit U, pp. 17-19, and Figure U-1.

³⁴⁴ ASC, Exhibit U, p. 16.

1 delays for westbound traffic on Oregon Trail Road turning right or left onto OR-207. The
2 applicant asserts that while the volume of construction traffic is unlikely to materially affect the
3 operation of this intersection, the type of traffic is such that some temporary traffic controls
4 may be desirable at this location.³⁴⁵

5
6 The applicant stated that a traffic management plan would be developed prior to construction
7 in cooperation with Morrow and Umatilla counties, and with nearby cities if necessary, to
8 minimize impacts to traffic safety. The applicant further described mitigation measures that its
9 construction contractor would implement, such as using traffic control measures (e.g., traffic
10 control flaggers, warning signs, lights, and barriers) during construction to ensure safety and to
11 minimize localized traffic congestion.³⁴⁶ The Council adopts the following condition requiring
12 the applicant to develop and implement a Traffic Management Plan that formalizes the
13 measures described above and in Exhibit U:

14
15 **Public Services Condition 6:** Prior to construction, the certificate holder shall prepare a
16 Traffic Management Plan that includes the procedures and actions described in this
17 order and the mitigation measures identified in ASC Exhibit U, Section 3.5.4. The plan
18 shall be approved by the department in consultation with the appropriate
19 transportation service providers. The plan shall be maintained onsite and implemented
20 throughout construction of the facility.

21
22 In addition, the certificate holder shall include the following information in the plan:

- 23
24 a. Procedures to provide advance notice to all affected local jurisdictions and adjacent
25 landowners of construction deliveries and the potential for heavy traffic on local
26 roads;
27 b. A policy of including traffic control procedures in contract specifications for
28 construction of the facility;
29 c. Procedures to maintain at least one travel lane at all times to the extent reasonably
30 possible so that roads will not be closed to traffic because of construction vehicles;
31 d. A policy of ensuring that no equipment or machinery is parked or stored on any
32 county road whether inside or outside the site boundary. The certificate holder may
33 temporarily park equipment off the road but within county rights-of-way with the
34 approval of the Morrow County and Umatilla County Public Works Departments;
35 e. A policy to encourage and promote carpooling for the construction workforce; and
36 f. Procedures to keep state highways and county roads free of gravel that may be
37 tracked out on intersecting roads at facility access points.

38
39 The applicant asserted that I-84 and OR-207 are constructed to standards that would safely
40 allow the construction-related legally oversized/overweight trucks to pass with no adverse
41 impact on the road surface. Three permits may be required from Oregon Department of

³⁴⁵ ASC, Exhibit U, pp. 17-19.

³⁴⁶ ASC, Exhibit U, pp. 21-22.

1 Transportation in order to minimize impacts to state highways, as identified in Exhibit U and
2 Exhibit E: Permit to Occupy or Perform Operations upon a State Highway, Oversize Load
3 Movement Permit/Load Registration, and an Access Management Permit.³⁴⁷ These permits
4 would not be included in or governed by the Site Certificate.

5
6 In addition, the applicant identified paved Rural Major Collector roads and Minor Collector
7 roads that would be used by construction truck traffic that the applicant anticipates can safely
8 accommodate construction traffic based on pavement conditions and design. In contrast, the
9 applicant identified unpaved County and local roads that would require the addition of more
10 road base aggregate to support the loads; replacement or lengthening of culverts; grading; and
11 replacement of cattle guards in order to safely receive construction truck traffic. The applicant
12 indicated that, at the design stage of the proposed facility, a careful inspection of these
13 unpaved roads would be required to determine where and what improvements would be
14 required to make these roads serviceable. The applicant further indicated that it would
15 coordinate with county roads officials as needed to address necessary road improvements,
16 temporary road closures, oversize load movements, and monitoring of impacts to county roads.

17 ³⁴⁸

18
19 The applicant stated that it would cooperate with both of the Morrow and Umatilla County
20 public works departments to obtain permits to improve the roads and also to make repairs to
21 county roads. As described in Exhibit E, the following permits may be required from Morrow
22 County in order to minimize impacts to county and local roads: Utility Crossing Permit, Access
23 Approach Site Permit, Construction Permit to Build on Right-of-Way, and Oversize Load
24 Movement Permit. For the same reason, an Installation of Utilities on County and Public Roads
25 Permit and a Construction of Road Approaches and Private Road Crossings Permit (Access
26 Approach Permit) may be required from Umatilla County.³⁴⁹ These permits would not be
27 included in or governed by the Site Certificate.

28
29 The applicant expected to enter into road use agreements with both counties to ensure that
30 public roads impacted by construction would be left in 'as good or better' condition than that
31 which existed prior to the start of construction.³⁵⁰ To ensure that any construction-related road
32 damage is repaired to the satisfaction of the local jurisdictions, the Council imposes the
33 following condition:

34
35 **Public Services Condition 7:** Before beginning construction, the certificate holder must
36 enter into Road Use Agreements with the Morrow County and Umatilla County Public
37 Works Departments. The Agreements must include, at a minimum, a pre-construction
38 assessment of road surfaces under Morrow County and Umatilla County jurisdiction,
39 construction monitoring, and post-construction inspection and repair. A copy of the

³⁴⁷ ASC, Exhibit U, p. 20 and Exhibit E, pp. 9-10.

³⁴⁸ ASC, Exhibit U, pp. 20-21.

³⁴⁹ ASC, Exhibit U, pp. 21-22 and Exhibit E, pp. 14-18.

³⁵⁰ ASC, Exhibit U, p. 22.

1 Road Use Agreements with Morrow County and Umatilla County must be submitted to
2 the department before beginning construction. If required by Morrow County or
3 Umatilla County, the certificate holder shall post bonds to ensure funds are available to
4 repair and maintain roads affected by the facility.

5
6 Furthermore, to ensure that new access roads and private road improvements are designed
7 and constructed to county standards, the Council imposes the following condition:

8
9 **Public Services Condition 8:** The certificate holder shall design and construct new access
10 roads and private road improvements to standards approved by Umatilla County or
11 Morrow County. Where modifications of county roads are necessary, the certificate
12 holder shall construct the modifications entirely within the county road rights-of-way
13 and in conformance with county road design standards subject to the approval of the
14 Umatilla County and Morrow County Public Works Departments.

15
16 Based on the applicant's commitments, plans for traffic safety and roadway repair during and
17 following construction, and subject to the recommended conditions, the Council finds that the
18 construction and operation of the facility, taking into account mitigation, are not likely to result
19 in significant adverse impact to the ability of public or private providers to provide traffic safety.

20 21 *Air Traffic*

22
23 As identified by the applicant, air transportation services in the vicinity of the facility include the
24 Morrow County (Lexington) Airport (a public use airport located approximately 2.5 miles
25 southwest of the Site Boundary), and the West Buttercreek airfield, which is located within 4
26 miles of the Site Boundary but does not meet the OAR 738-005-0010 definition of a public use
27 airport.³⁵¹ Because the wind turbines would be greater than 200 feet in height, the applicant
28 must submit a Notice of Proposed Construction or Alteration form (known as FAA Form 7460-1)
29 to both the Federal Aviation Administration (FAA) and the Oregon Department of Aviation, in
30 order for the FAA and the Oregon Department of Aviation to assess potential hazards to air
31 safety and air navigation. The applicant stated that it would submit the required information in
32 accordance with ORS 836.535(2)(a). The applicant further stated that it would provide to the
33 Council a record of all correspondence with FAA and the Oregon Department of Aviation no less
34 than 30 days prior to construction.³⁵²

35
36 In its comment letter on the ASC, the Oregon Department of Aviation requested that the
37 Council include a condition of approval requiring the applicant to file FAA Form 7460-1 with the
38 FAA and the Oregon Department of Aviation and to receive a determination of air safety.³⁵³

³⁵¹ WRWAPPDoc56, Agency Comment Oregon Department of Aviation (J. Caines) , 04-20-2016.

³⁵² ASC, Exhibit U, pp. 22-23.

³⁵³ WRWAPPDoc30, Agency Comment Oregon Department of Aviation, 08-06-2015. Under its review process, the Oregon Department of Aviation would conduct an aeronautical study and recommend one of four outcomes: 1) No objections to the proposal, 2) Marking and lighting recommended or required for aviation safety, 3) The proposed

1
2 Under the Public Services Standard, the Council must consider a facility's potential impact to
3 public service providers to provide traffic safety. In order to ensure that the proposed facility
4 would not result in adverse impacts to the ability of the Morrow County (Lexington) Airport to
5 provide service, and to address the concerns of the Oregon Department of Aviation regarding
6 impacts to air navigation safety, the Council adopts the following condition, with administrative
7 changes included in the proposed order clarifying that the requirements would apply to each
8 turbine.³⁵⁴

9
10 **Public Services Condition 9:** Before beginning construction, the certificate holder shall
11 submit to the Federal Aviation Administration (FAA) and the Oregon Department of
12 Aviation an FAA Form 7460-1 Notice of Proposed Construction or Alteration for each
13 turbine. Before beginning construction, the certificate holder shall submit to the
14 department the results of the Oregon Department of Aviation aeronautical study and
15 determination. If the department, in consultation with the Oregon Department of
16 Aviation, determines that any turbine would adversely impact an airport's ability to
17 provide service by obstructing the airport's primary or horizontal surface, the
18 department, in consultation with the Oregon Department of Aviation and the certificate
19 holder, shall determine appropriate mitigation, if any, prior to construction.

20 21 *Police and Fire Protection*

22
23 As described in Exhibit U, the Umatilla and Morrow County Sheriffs' Offices provide police
24 services in the area of the facility. The applicant stated also that additional law enforcement
25 service is available from the Oregon State Police, with offices in Arlington, Heppner, Hermiston,
26 and Pendleton. The applicant asserted that due to the small number of temporary construction
27 workers and additional permanent-resident employees no significant adverse demands would
28 be placed upon the law enforcement agencies in the area.³⁵⁵

29
30 The applicant consulted the Umatilla County Sheriff's Office and the Morrow County Sheriff's
31 Office and each provided a letter confirming that the office would respond appropriately and as
32 necessary to any complaints that come from the facility. Additionally, the Morrow County
33 Sheriff's Office confirmed that the facility would not adversely affect the Morrow County

obstruction should be lowered to a height that is no longer a hazard, or 4) The proposed obstruction should be relocated.

³⁵⁴ In the draft proposed order, recommended Public Services Condition 9 stated, "Before beginning construction, the certificate holder shall submit to the Federal Aviation Administration (FAA) and the Oregon Department of Aviation (ODA) an FAA Form 7460-1 Notice of Proposed Construction or Alteration. Before beginning construction, the site certificate holder shall submit to the department the results of ODA's aeronautical study and determination. If the department, in consultation with ODA, determines that any facility components would adversely impact an airport's ability to provide service by obstructing the airport's primary or horizontal surface, the department, in consultation with ODA and the certificate holder, shall determine appropriate mitigation, if any, prior to construction."

³⁵⁵ ASC, Exhibit U, p. 10.

1 Sheriff's Office in terms of additional workload.³⁵⁶ To ensure on-site security is established,
2 establish and maintain effective communication with local law enforcement, and mitigate the
3 potential adverse impacts to the police services provided by the surrounding communities, the
4 Council imposes the following conditions:

5
6 **Public Services Condition 10:** During construction of the facility, the certificate holder
7 shall provide for 24-hour on-site security, and shall establish effective communications
8 between on-site security personnel and the Morrow County Sheriff's Office and Umatilla
9 County Sheriff's Office.

10
11 **Public Services Condition 11:** The certificate holder shall construct turbine towers with
12 no exterior ladders or access to the turbine blades and shall install locked tower access
13 doors. The O&M buildings shall be fenced. The certificate holder shall keep tower access
14 doors and O&M buildings locked at all times, except when authorized personnel are
15 present.

16
17 **Public Services Condition 12:** During operation, the certificate holder shall ensure that
18 appropriate law enforcement agency personnel have an up-to-date list of the names
19 and telephone numbers of facility personnel available to respond on a 24-hour basis in
20 case of an emergency at the facility site.

21
22 In Exhibit U, the applicant indicated that because the Site Boundary is located completely within
23 the rural fire protection districts of Heppner, Lone, and Echo, any emergency fire response would
24 be by one of these three rural fire protection districts and any assistance by another fire
25 department would be in the service of one of these three rural fire protection districts.³⁵⁷ The
26 City of Heppner Volunteer Fire Department provided a letter indicating that the facility would
27 not have a significant impact on the operations of the agency, but the fire department does not
28 have the ability to perform confined space rescue or high angle rescue. The Lone and Echo fire
29 protection districts each provided a letter also indicating that they also do not have the ability to
30 perform confined space rescue or high angle rescue, and that the facility would not have a
31 significant impact on their ability to fight wildfires.³⁵⁸ Boardman Rural Fire Protection District
32 provided a letter stating that while the facility is outside of its protection district, it does provide
33 aid to the responsible fire districts if necessary.³⁵⁹

34
35 The applicant stated that the greatest risk of fire at a wind facility occurs during construction,
36 with fire hazards including metal cutting and welding, worker cigarettes, vehicle refueling, and
37 driving or parking vehicles in tall dry grass.³⁶⁰

38

³⁵⁶ ASC, Exhibit U, Attachments U-1 and U-2.

³⁵⁷ ASC, Exhibit U, p. 10.

³⁵⁸ ASC, Exhibit U, Attachments U-3, U-4, and U-5.

³⁵⁹ ASC, Exhibit U, Attachment U-6.

³⁶⁰ ASC, Exhibit U, p. 24.

Exhibit U described the applicant's plans for fire prevention and protection on the facility site.³⁶¹
Fire prevention measures the applicant states will be implemented during construction include:

Vehicles and Fueling

- Plan and manage the work and the movement of vehicles. No off-road driving is to be done while working alone.
- General Contractor will be responsible for identifying and marking the path for all off-road vehicle travel.
- All vehicle travel off-road is to stay on the identified path.
- In the event a vehicle gets stuck, shut the engine off. Periodically inspect the area adjacent to the exhaust system for evidence of ignition of vegetation. Do not "rock" the vehicle to free it, rather, pull it out. Inspect the area after the vehicle has been moved.
- In tall grass (i.e., tall or taller than the exhaust system of the vehicle(s)), pre-wet the area with water prior to driving on it with vehicles.
- General Contractor will designate a location for field fueling operations at each construction yard. Any fueling of generators, pumps, etc. shall take place at this location only.
- Fuel containers, if used, shall remain in a vehicle or equipment trailer, parked at a designated location alongside county R/W. No fuel containers shall be in the vehicles that exit the R/W with the exception of one – five gallon container that is required for the water truck pump.

Smoking

- Smoking shall only be allowed in the designated smoking areas within the site boundary.

Fire Suppression and Emergency Preparedness

Fire-fighting equipment (and the associated instructions for proper use) that the applicant states would be available onsite during construction includes:

- Each vehicle used onsite shall have a fire extinguisher of sufficient type and capacity to suppress small fires around vehicles. Vehicle occupants shall be familiar with the location of these fire extinguishers. All employees who may have a need to use a fire extinguisher shall be current in their training on the general principals of fire extinguisher use and the hazards involved with incipient stage fire-fighting.
- Prior to start of construction work activities, contact the local fire department and advise them of work type, location, and probable duration.
- Prior to performing hot work (anything that creates a spark or an open flame is considered hot work) fire suppression equipment must be immediately available, hot work must only be done on road or turbine pad surfaces cleared of vegetation, and the on-site Fire Safety Supervisor must be notified.

³⁶¹ ASC, Exhibit U, pp. 24-25.

- A fire watch, equipped with a suitable fire extinguisher, shall be maintained for a period of 60 minutes after completion of work in a specific area and at the end of each day's activities.

Emergency Notification and Follow-up

The course of action that the applicant indicates should be taken if an emergency situation develops includes:

- Evacuate as necessary. Maintain site security and control if possible. If crews are working at different areas of the site, a designated meeting location will be created for all people to gather.
- Notify proper emergency services (fire, ambulance, etc.) for assistance.
- Notify site management on radio channel #1 of any possible fires.
- Prepare a summary report of the incident as soon as possible after the incident.

Equipment and procedures that the applicant states would be utilized to reduce the risk of fire or fire spread during operations and maintenance include:

- The turbines would be equipped with internal fire suppression systems in the nacelles.
- The O&M buildings would be equipped with fire protection equipment in accordance with Oregon Fire Code, and the substations, collector lines, and other electrical connections would be built to NESC standards.
- Maintenance vehicles would drive and park on maintained gravel roads and turbine pads, avoiding hazards associated with driving or parking in tall dry grass.

The Council adopts the following condition requiring the applicant to develop an Emergency Management Plan that formalizes the measures described above and in Exhibit U:

Public Services Condition 13: Prior to construction, the certificate holder shall prepare an Emergency Management Plan that includes the procedures and actions described in this order and in ASC Exhibit U. The certificate holder shall submit the plan to ODOE for review and approval in consultation with the appropriate local fire protection districts (including the City of Heppner Volunteer Fire Department, Lone Rural Fire Protection District, and Echo Rural Fire Protection District) prior to construction. The plan shall be maintained onsite and implemented throughout construction and operation of the facility. Any updates to the plan shall be provided to the department within 30 days. All onsite workers shall be trained on the fire prevention and safety procedures contained in the plan prior to working on the facility.

Additional information that shall be included in the plan:

- a. Current contact information of at least two facility personnel available to respond on a 24-hour basis in case of an emergency on the facility site. The contact information must include name, telephone number(s), physical location, and email address for the listed contact(s). An updated list must be provided to the fire protection agencies immediately upon any change of contact information. A copy of the contact list, and any updates as they occur, must also

be provided to the Department, along with a list of the agencies that received the contact information.

- b. Identification of agencies that participated in developing the plan;
- c. Identification of agencies that are designated as first response agencies or are included in any mutual aid agreements with the facility;
- d. A list of any other mutual aid agreements or fire protection associations in the vicinity of the facility;
- e. Contact information for each agency listed above;
- f. Communication protocols for both routine and emergency events and the incident command system to be used in the event a fire response by multiple agencies is needed at the facility;
- g. Access and fire response at the facility site during construction and operations. Fire response plans during construction should address regular and frequent communication amongst the agencies regarding the number and location of construction sites within the site boundary, access roads that are completed and those still under construction, and a temporary signage system until permanent addresses and signs are in place;
- h. The designated meeting location in case of evacuation;
- i. Staff training requirements; and
- j. Copies of mutual aid, fire protection association, or other agreements entered into concerning fire protection at the facility site.

The applicant concluded in Exhibit U that significant new demands on fire protection forces are not anticipated, given the inherent fire-safety features of proposed facility components and the relatively small number of new temporary and permanent residents.³⁶² However, in its September 16, 2015 comment letter, Umatilla County noted that, despite the applicant receiving communication from the affected fire departments stating that they do not have the ability to perform confined space rescue or high angle rescue, the “[a]pplication establishes that there is no plan to deal with the fires occurring on the turbines.”³⁶³ To respond to the County’s concern, and given that the Lone and Echo fire protection districts indicated that they do not have the ability to perform confined space rescue or high angle rescue, the Council imposes the following conditions:

Public Services Condition 14: During construction of the facility, the certificate holder shall ensure that turbine construction personnel are trained and equipped for fall protection, high angle, and confined space rescue. The certificate holder must retain records of the training and provide them to the department upon request.

Public Services Condition 15: Prior to operation of the facility, the certificate holder shall ensure that operations personnel are trained and equipped for fall protection and tower rescue, including high angle and confined space rescue. Refresher training in high angle

³⁶² ASC, Exhibit U, pp. 25-26.

³⁶³ WRWAPPDoc34, SAG Comment UBOC, 09-16-2015.

1 and confined space rescue must be provided to operations personnel on an annual basis
2 throughout the operational life of the facility. The certificate holder must retain records
3 of the training and provide them to the department upon request.

4
5 To ensure the individual towers and tower sites are constructed and maintained for to reduce
6 the risk of fire hazard, the Council adopts the following condition:³⁶⁴

7
8 **Public Services Condition 16:** During construction, the certificate holder shall design
9 turbines to be constructed on concrete pads with a minimum of 10 feet of nonflammable
10 and non-erosive ground cover on all sides. The certificate holder shall cover turbine pad
11 areas with nonflammable, non-erosive material immediately following exposure during
12 construction and shall maintain the pad area covering during facility operation.

13
14 To ensure onsite personnel limit their risk of causing a fire during construction and operation of
15 the facility and that response personnel can respond to fire hazards in the shortest possible
16 time frame, the Council adopts the following conditions:

17
18 **Public Services Condition 17:** During construction the certificate holder must maintain
19 an area clear of vegetation for fire prevention around construction sites, including
20 turbines and towers and any areas where work includes welding, cutting, grinding, or
21 other flame- or spark-producing operations.

22
23 **Public Services Condition 18 [Draft Proposed Order Recommended Public Services**
24 **Condition 19]:** Prior to construction and operation of the facility, , the certificate holder
25 must provide employee fire prevention and response training that includes instruction
26 on facility fire hazards, fire safety, emergency notification procedures, use of fire safety
27 equipment, and fire safety rules and regulations. The certificate holder shall notify the
28 department and the first-response agencies listed in the Emergency Management Plan
29 developed to comply with Public Services Condition 13 at least 30 days prior to the
30 annual training to provide an opportunity to participate in the training. Equivalent
31 training shall be provided to new employees or subcontractors working on site that are
32 hired during the fire season. The certificate holder must retain records of the training
33 and provide them to the department upon request.

34
35 **Public Services Condition 19 [Draft Proposed Order Recommended Public Services**
36 **Condition 20]:** Before beginning operation of the facility, the certificate holder must
37 provide a final site plan to the identified fire protection districts and first-responders

³⁶⁴ In the draft proposed order, recommend Public Services Condition 17 stated, "The certificate holder shall install and maintain self-monitoring devices on each turbine, connected to a fault annunciation panel or supervisory control and data acquisition (SCADA) system to alert operators to potentially dangerous conditions. The certificate holder shall maintain automatic equipment protection features in each turbine that would shut down the turbine and reduce the chance of a mechanical problem causing a fire." This condition was redundant with recommended Public Health and Safety Standards for Wind Facilities Condition 4 and therefore was deleted from the proposed order.

1 included in the Emergency Management Plan. The certificate holder must indicate on
2 the site plan the identification number assigned to each turbine and the actual location
3 of all facility structures. The certificate holder shall provide an updated site plan if
4 additional turbines or other structures are later added to the facility.
5

6 Based on the applicant's plans for security, fire protection, and communication with local
7 service providers, and compliance with the conditions imposed in the site certificate, the
8 Council finds that the construction and operation of the facility are not likely to result in
9 significant adverse impact to the ability of public or private police or fire protection service
10 providers to provide police and fire protection.
11

12 *Health Care*

13

14 The applicant stated that any worker suffering minor injuries would be transported and treated
15 at the Pioneer Medical Center in Heppner or the Good Shepherd Medical Center in Hermiston.
16 Workers suffering an injury that requires immediate medical attention would be transported
17 using one of the local ambulance services. The applicant also indicated that workers suffering
18 more serious injuries would be taken to the Mid-Columbia Medical Center in The Dalles, or
19 would be flown by helicopter (operated by Life Flight) to one of the two Level 1 hospitals located
20 in Portland: Oregon Health Sciences University Hospital or Legacy Emmanuel Medical Center.³⁶⁵
21

22 The applicant does not anticipate that the number of construction workers temporarily locating
23 in the area and the number of permanent employees and their families moving into the area
24 would adversely affect the ability of these providers to deliver health services; however, the
25 applicant notes that impacts on health care could occur if facility construction activities were to
26 result in an increase in the use of emergency health care services exceeding the capacity of local
27 providers.³⁶⁶ The Council concurs that the population increase in the analysis area during
28 operation of the facility would be minimal, but the applicant has indicated that an average of
29 about 168 and a peak of about 252 temporary residents (in-migrants) could be in a single
30 location for a period from a few weeks to as long as 18 months, which has potential to cause a
31 temporary strain on health and emergency care services.³⁶⁷ To reduce the potential for impacts
32 to health providers, Council adopts the following conditions:
33

34 **Public Services Condition 20:** Before beginning construction, the certificate holder shall
35 develop and implement, or require its contractors to develop and implement, a site
36 health and safety plan that informs workers and others onsite about first aid techniques
37 and what to do in case of an emergency. The health and safety plan will include
38 preventative measures, important telephone numbers, the locations of onsite fire
39 extinguishers, and the names, locations and contact information of nearby hospitals. All
40 onsite workers shall be trained in safety and emergency response, as per the site health

³⁶⁵ ASC, Exhibit U, p. 26.

³⁶⁶ ASC, Exhibit U, p. 26.

³⁶⁷ ASC, Exhibit U, pp. 5 and 11.

1 and safety plan. The site health and safety plan must be updated on an annual basis,
2 maintained throughout the construction and operations and maintenance phases of the
3 facility, and available upon request by the department.
4

5 **Public Services Condition 21:** Before beginning construction, the certificate holder shall
6 ensure that all construction workers are certified in first aid, cardio pulmonary
7 resuscitation (CPR), and the use of an automated external defibrillator (AED). The
8 certificate holder must retain records of the certifications and provide them to the
9 department upon request. The certificate holder shall also ensure that an AED is
10 available onsite at all times that construction activities are occurring.
11

12 **Public Services Condition 22 [Draft Proposed Order Recommended Public Services**
13 **Condition 23]:** Prior to operation, the certificate holder must ensure that operations
14 personnel remain current in their first aid/CPR/AED certifications throughout the
15 operational life of the facility. The certificate holder must retain records of the
16 certifications and provide them to the department upon request. The certificate holder
17 shall also ensure that an AED is available onsite at all times that operations and
18 maintenance personnel are at the facility.
19

20 Based upon this analysis and the proposed conditions, the Council finds that the construction
21 and operation of the facility are not likely to result in significant adverse impact to the ability of
22 public or private health care providers to provide health care.
23

24 *Schools*

25

26 The applicant stated in Exhibit U that the facility would be located in Morrow County School
27 District No.1 and Echo School District No. 5 in Umatilla County.³⁶⁸ The applicant asserted that no
28 significant adverse impacts to schools are anticipated during construction of the facility, because
29 construction would be temporary and short-term, and much of the peak work period would
30 occur during the summer months when school is not in session. According to the applicant, only
31 a small percentage of workers would be expected to relocate their entire families (including
32 school-age children) for a short-term construction project. As such, the applicant stated that it is
33 unlikely that any one school would receive more students than it can accommodate.³⁶⁹
34

35 During operation of the facility, the applicant does not anticipate that the estimated 10 to 15
36 permanent employees would have a significant adverse impact on local schools, and it is
37 expected that local schools can accommodate any potential new children that may move to the
38 local area associated with the facility operation.³⁷⁰
39

³⁶⁸ ASC, Exhibit U, p. 11.

³⁶⁹ ASC, Exhibit U, pp. 26-27.

³⁷⁰ ASC, Exhibit U, pp. 3 and 26-27.

Based upon the foregoing, the Council finds that the construction and operation of the facility are not likely to result in significant adverse impact to the ability of public and private providers to provide school services.

Conclusions of Law

Based on the foregoing analysis, and in compliance with OAR 345-022-0110(2), the Council imposes the above referenced conditions in the site certificate to address the Council's Public Services standard.

IV.N. Waste Minimization [OAR 345-022-0120]

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

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

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

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

Pursuant to OAR 345-022-0020(2), the Council may issue a site certificate for a wind energy facility without making findings regarding the Waste Minimization standard; however, the Council may impose site certificate conditions based upon the requirements of the standard.

Findings of Fact

The Waste Minimization standard requires the Council to find that the certificate holder will minimize the generation of solid waste and wastewater, and that the waste generated will be managed to result in minimal adverse impacts on surrounding and adjacent areas. The applicant provided information about waste minimization in Exhibits G and V of the ASC. Exhibit V includes the applicant's plans for solid waste and wastewater management during construction and operation of the facility. Exhibit G includes additional information about management of potentially hazardous materials.

Solid Waste

The applicant indicated that solid waste generated during construction would produce approximately 9,000 cubic yards of waste and would consist primarily of scrap metal (e.g., wire and rebar scraps), wood, concrete, incidental litter, and other debris. The applicant proposed to minimize the generation of construction waste by estimating material needs and employing efficient construction practices including orderly waste collection and consolidation at construction yards; segregation of waste and recyclable materials; and, utilization of appropriately sized containers equipped with fitted lids. As explained in Exhibit V, disposal and recycling containers would be transported by a licensed waste hauler, under contract to the construction contractor, to appropriate disposal facilities.³⁷¹

Excess soil generated during turbine foundation excavations would be re-spread within areas of temporary disturbance and may, if necessary, be disposed of by the applicant's construction contractor at an approved off-site facility. The applicant explained that off-site facilities, if necessary, used by construction contractors for excess soil disposal would be on participating land-owner property within the site boundary, but would be approved by the applicant's environmental representatives and the receiving landowner. Based on the applicant's representation of measures to ensure proper disposal of excess soil, the Council imposes the following condition:

Waste Minimization Condition 1: During construction, the certificate holder shall require construction contractors to complete the following for any off-site disposal of excess soil during construction activities:

- a. Obtain and provide the certificate holder with a signed consent agreement between contractor and the party receiving the earth materials authorizing the acceptance and disposal of the excess soil; and,
- b. Confirm that all disposal sites have been inspected and approved by the certificate holder's environmental personnel to ensure that sensitive environmental resources, such as wetlands or high quality habitats, would not be impacted.

The certificate holder shall maintain copies of all signed consent agreements and disposal site inspection and approvals onsite and shall provide to the department in the 6-month construction report required pursuant to OAR 345-026-0080(1)(a).

The applicant proposed to implement a waste management plan to ensure waste materials generated during construction would be reused, recycled, or properly disposed. The waste management plan would contain details on how the applicant and its contractor would properly manage and dispose of waste, including information regarding waste containers, waste segregation and recycling program, and waste disposal facilities and collection requirements. To ensure the waste management plan is implemented as proposed, the Council adopts the following condition:

³⁷¹ ASC, Exhibit V, pp. 2 and 4.

1
2 **Waste Minimization Condition 2:** Prior to construction, the certificate holder shall
3 develop a construction waste management plan, to be implemented during all phases of
4 facility construction, which includes at a minimum the following details:

- 5 a. Specification of the number and types of waste containers to be maintained at
6 construction sites and construction yards
7 b. Description of waste segregation methods for recycling or disposal.
8 c. Names and locations of appropriate recycling and waste disposal facilities, collection
9 requirements, and hauling requirements to be used during construction.

10
11 The certificate holder shall maintain a copy of the construction waste management plan
12 onsite and shall provide to the department a report on plan implementation in the 6-
13 month construction report required pursuant to OAR 345-026-0080(1)(a).

14
15 Operation of the facility would generate solid waste during repair or replacement of turbines, or
16 associated facility components, and from O&M buildings. The applicant explained that
17 operational waste would be collected by maintenance crews and transported off-site to facilities
18 approved to handle the disposal or recycling of these items. During both construction and
19 operation of the facility, solid wastes would be disposed at the Finley Butte landfill in Morrow
20 County. The Public Services section of this final order contains additional information regarding
21 the landfill and waste disposal. Exhibit U, Attachment U-7, is a letter from the Finley Butte
22 landfill operator confirming the landfill has adequate capacity to accept the anticipated waste
23 from the facility.³⁷²

24
25 In response to the Wheatridge Notice of Intent, Morrow County submitted its applicable
26 substantive criteria that would apply to the facility. The applicant addressed the applicable
27 components of the solid waste management ordinance in Exhibit V. Included in the criteria is the
28 county solid waste management ordinance, which requires the following:

29
30 *SECTION 5.000. PUBLIC RESPONSIBILITIES*

31 *5.010. Transportation of Solid Waste*

32 *No person shall transport or self-haul, as defined in the Solid Waste Management Plan,*
33 *solid waste on a public road unless such waste or solid waste is covered and secured.*

34 *"Covered and Secured" includes:*

- 35 *1. Loads which are totally contained within an enclosed vehicle or container;*
36 *2. Loads of solid waste contained in garbage cans with tightly fitting lids, tied plastic solid*
37 *waste disposal bags or similar totally enclosed individual containers that are completely*
38 *contained within the walls of a vehicle or container, such that no solid waste can*
39 *reasonably be expected to escape during hauling;*
40 *3. Loads of brush, building materials and similar bulky materials which are secured in or*
41 *on the hauling vehicle or completely contained within the walls of a vehicle or container,*
42 *such that none can reasonably be expected to escape during hauling; or*

³⁷² ASC, Exhibit V, pp. 4-5.

1 4. Loads consisting entirely of rock, concrete, asphalt paving, stumps and similar
2 materials that are completely contained within the walls of a vehicle or container, such
3 that none can reasonably be expected to escape during hauling.
4

5 The applicant stated that solid waste would be transported off-site from designated collection
6 points at the construction yards and the O&M buildings by contracted waste haulers. The waste
7 haulers would be responsible for compliance with the ordinance to cover and secure the loads.
8 Any solid waste transported by construction personnel from work sites to the collection points
9 would be done in compliance with the ordinance to cover and secure loads.³⁷³
10

11 5.020. Accumulation, Littering and Disturbance of Solid Waste Prohibited
12 No person shall accumulate or store wastes in violation of the Morrow County Nuisance
13 Ordinance or in violation of regulations of the Oregon Littering Provisions (ORS 164.775 -
14 805). No unauthorized person shall remove the lid from any solid waste container or
15 collect, disturb or scatter solid waste stored in the container or deposit solid waste into
16 the container.
17

18 The applicant stated that it would comply with this provision, and would maintain compliance by
19 developing and implementing a waste management plan.³⁷⁴ Waste Minimization Condition 2,
20 requiring the site certificate holder to develop and implement such a plan, would help maintain
21 compliance with the county ordinance and the Oregon Littering Provisions.
22

23 5.030. Responsibility for Proper Disposal of Hazardous Waste
24 The owner, operator, or occupant of any premise, business, establishment, or industry
25 shall be responsible for the satisfactory and legal disposal of all hazardous solid waste
26 generated or accumulated by them on the property. All hazardous solid wastes shall be
27 disposed of at an appropriate solid waste disposal site licensed to receive such waste, or
28 in a manner consistent with Department of Environmental Quality regulations. It shall be
29 unlawful for any person to dump, deposit, bury, or allow the dumping, depositing or
30 burying of any hazardous solid waste onto or under the surface of the ground or into the
31 waters of the state, except at a State permitted solid or hazardous waste disposal site.
32

33 The applicant stated that any hazardous waste generated during construction or operation of
34 the facility would be removed, transported, and disposed by a qualified and licensed contractor.
35 No hazardous solid wastes shall be dumped, deposited, buried, or otherwise disposed on or
36 under the ground at the facility.³⁷⁵
37

38 5.040. Open Burning
39 Woody debris, brush, leaves, grass, tumbleweeds, wood and cuttings from trees, lawns,
40 shrubs and gardens (excepting paper, cardboard, or wood containers in commercial

³⁷³ ASC, Exhibit V, pp. 5-6.

³⁷⁴ Id.

³⁷⁵ Id.

quantities) may be burned on private property only if the method of burning is approved by the local fire department and is done in accordance with the rules and regulations of the Oregon Department of Environmental Quality. Agricultural open burning is allowed pursuant to Oregon air pollution laws (ORS 468A.020) and the requirements and prohibitions of local jurisdictions and the State Fire Marshal. Open burning of any waste materials, including on agricultural lands, that normally emit dense smoke, noxious odors, or that create a public nuisance is prohibited. These materials include, but are not limited to, household garbage, plastics, wire, insulation, auto bodies, asphalt, waste petroleum products, rubber products, animal remains, and animal or vegetable wastes resulting from the handling, preparation, cooking, or service of food.

The applicant stated in Exhibit V that it would not burn any waste materials generated by the facility.

Based on the above information, and in compliance with the recommended conditions above, the Council finds that the applicant's plans to manage the accumulation, storage, disposal and transportation of solid waste generated by the construction and operation of the facility are likely to minimize the amount of solid waste generated, and would likely result in minimal adverse impact on surrounding and adjacent areas.

Wastewater

Construction of the facility would generate small quantities of wastewater, primarily consisting of concrete washout water produced during turbine construction and substation foundation work. As explained in Exhibit V, concrete washout would be performed in the foundation excavation area of each turbine foundation or substation foundation, and the washout water would become part of the foundation along with any excess dried concrete solids or slurry. Email correspondence with DEQ, attached as Exhibit V, Attachment V-1, acknowledges this process for disposal of concrete washout water. DEQ's response to the applicant states that while there may not be environmental impacts associated with the proposed disposal method, there would be restrictions regarding this disposal process if the turbine or substation foundations are close to surface water, near shallow groundwater, or could impact drinking water wells. In order to protect surface water, groundwater, and drinking water sources, the Council adopts the following condition, requiring the applicant to work with the department, in consultation with DEQ, to confirm there are no surface waters, shallow groundwater, or drinking water sources that could be adversely impacted by usage of concrete washout water in turbine or substation construction.

Waste Minimization Condition 3: Prior to construction, the certificate holder shall investigate and confirm that no surface waters, shallow groundwater, or drinking water sources will be adversely impacted by the usage of concrete washout water in the foundations of facility components, and shall submit an investigation report to the department. Prior to construction, the department, in consultation with DEQ, shall review the results of the investigation report and shall verify that the plan to dispose of

1 concrete washout water in the foundations of facility components is unlikely to
2 adversely impact surface waters, shallow groundwater, or drinking water sources. The
3 applicant's investigation shall be based on the anticipated final facility layout and
4 design. If the results of the investigation show that the proposed concrete washout
5 water disposal method would cause adverse impacts to surface water, shallow
6 groundwater, or drinking water sources, the applicant shall propose mitigation
7 measures to reduce potential impacts, for review and approval by the department in
8 consultation with DEQ, prior to construction.

9
10 The applicant expects to generate wastewater from other sources, including vehicle and
11 equipment washing and water used for dust suppression and road development. During
12 construction of the facility, the certificate holder would be subject to the requirements of a
13 NPDES 1200-C construction stormwater permit, which establishes allowable wastewater
14 sources and best management practices, and its associated Erosion and Sediment Control Plan.
15 An ESCP establishes the best management practices for minimizing erosion of exposed soils in
16 disturbed areas and preventing and controlling runoff that could adversely impact water
17 quality. Soil Protection Condition 1 requires the applicant to finalize and implement the ESCP,
18 as approved by DEQ. This measure would help protect soils and reduce wastewater and
19 stormwater from leaving the site.³⁷⁶ Vehicle and equipment washing would only occur at
20 construction yards and would be in sufficiently small quantities to manage at the construction
21 yards. Water would be used onsite during construction for dust suppression and road
22 compaction; however, the applicant stated that this water is expected to evaporate or infiltrate
23 into the ground and therefore would not contribute to wastewater volumes.³⁷⁷

24
25 During facility construction, as explained in Exhibit V of the ASC, sanitary wastewater from
26 portable toilets would be managed and disposed of by a licensed subcontractor in accordance
27 with local jurisdictional regulations. During facility operation, the applicant explained that
28 sanitary waste would be handled through an on-site septic system serving each of the O&M
29 buildings. Operation of the facility would not otherwise generate wastewater or industrial
30 wastewater, there would be no blade-washing, and the O&M buildings would typically generate
31 minor quantities of wastewater as might be associated with a small office. Soil Protection
32 Condition 7 requires the site certificate holder to secure any necessary permits from DEQ for
33 construction and operation of the O&M building septic systems, thus further reducing potential
34 impacts from improper management of wastewater during facility operation.

35
36 Based on the above information, and subject to compliance with the conditions, the Council
37 finds that the applicant's plans to manage the accumulation, storage, disposal and
38 transportation of wastewater generated by the construction and operation of the facility are

³⁷⁶ The NPDES 1200-C permit is a federally delegated permit that is not under Council jurisdiction or governed by the site certificate pursuant to ORS 469.503(3). The NPDES 1200-C permit is discussed in greater detail in Section IV.D, *Soil Protection* of this final order.

³⁷⁷ ASC, Exhibit V, pp. 7-8.

likely to minimize the amount of wastewater generated, and would likely result in minimal adverse impact on surrounding and adjacent areas.

Conclusions of Law

Based on the foregoing analysis, and in compliance with OAR 345-022-0120(2), the Council imposes the conditions listed above in the site certificate to address the Council's Waste Minimization standard.

IV.O. Public Health and Safety Standards for Wind Facilities [OAR 345-024-0010]

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

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

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

Findings of Fact

OAR Chapter 345, Division 24 requires the Council to consider specific public health and safety standards as they relate to wind facilities. In particular, the Council must evaluate the facility's means to exclude members of the public from close proximity to the turbine blades and electrical equipment and the applicant's ability to design, construct and operate the facility to prevent structural failure of the tower or blades and to provide sufficient safety devices to warn of failure. The Council's Structural standard is discussed in Section IV.C of this order. The applicant addressed the Public Health and Safety Standards for Wind Energy Facilities in Exhibit DD of the ASC.

As described in the Exhibit DD, the facility would be located entirely on private property, which would restrict public access to turbine and other facility component locations.³⁷⁸ Access roads improved or developed for proposed facility construction and operation would be gated or locked, when not actively in use, to limit public accessibility. Pad-mounted step-up transformers would be enclosed in steel boxes. Substations would be within a fenced and locked area.³⁷⁹ The Council adopts the following conditions to exclude members of the public from close proximity to the turbine towers and electrical equipment:

Public Health and Safety Standards for Wind Facilities Condition 1: During construction, the certificate holder shall install pad-mounted step-up transformers at

³⁷⁸ ASC, Exhibit DD, p. 1.

³⁷⁹ ASC, Exhibit DD, p. 3.

1 the base of each tower in steel boxes designed to protect the public from electrical
2 hazards.

3
4 **Public Health and Safety Standards for Wind Facilities Condition 2:** During operation,
5 the certificate holder shall ensure each facility substation is enclosed with appropriate
6 fencing and locked gates to protect the public from electrical hazards.

7
8 In addition to measures to discourage access to the site, the applicant also proposed to locate
9 the turbine towers within the minimum safety setbacks of 110 percent of the maximum blade
10 tip height (MBTH) from public roads, and 100 percent of the MBTH from non-participating
11 landowners. Further, the turbine blade tip would be a minimum of 80 feet above ground. These
12 measures are consistent with applicable development standards within Morrow and Umatilla
13 County, and have been included in the site certificate as Land Use Conditions 1 and 2.

14
15 Based on this analysis and subject to compliance with these conditions and on compliance with
16 Land Use Conditions 1 and 2, the Council finds that the facility could be designed to minimize
17 potential risk and impacts in the highly unlikely event of a catastrophic collapsed turbine or
18 thrown blade to public roads and nonparticipating property owners.

19
20 Subsection (2) of the standard relates to the protection of public health and safety from
21 structural failure, including the installation of appropriate safety devices and testing procedures
22 to warn of failure and minimize impact.

23
24 The applicant stated in the ASC that the selected turbines are designed with several levels of
25 built-in safety and comply with the codes set forth by the Occupational Safety and Health
26 Administration and American National Standards Institute. The wind turbines would also be
27 equipped with Supervisory Control and Data Acquisition (SCADA) systems that would allow for
28 remote control and monitoring of individual turbines and the wind facility as a whole from both
29 the central host computer or from a remote computer.

30
31 To ensure proper handling and to prevent damage to the towers or blades that could lead to
32 failure, and to ensure adequate safety measures are in place to detect any signs of wear or
33 potential for failure, the Council adopts the following conditions:

34
35 **Public Health and Safety Standards for Wind Facilities Condition 3:** During construction
36 and operation, the certificate holder shall follow manufacturers' recommended
37 handling instructions and procedures to prevent damage to turbine or turbine tower
38 components.

39
40 **Public Health and Safety Standards for Wind Facilities Condition 4:** During
41 construction, the certificate holder shall install and maintain self-monitoring devices on
42 each turbine, linked to sensors at the operations and maintenance building, connected
43 to a fault annunciation panel or supervisory control and data acquisition (SCADA)
44 system to alert operators to potentially dangerous conditions. The certificate holder

1 shall maintain automatic equipment protection features in each turbine that would shut
2 down the turbine and reduce the chance of a mechanical problem causing a fire. The
3 certificate holder shall immediately remedy any dangerous conditions.
4

5 **Public Health and Safety Standards for Wind Facilities Condition 5:** The certificate
6 holder shall notify the department, the Morrow County Planning Department and the
7 Umatilla County Planning Department within 72 hours of any accidents including
8 mechanical failures on the site associated with construction or operation of the facility
9 that may result in public health or safety concerns.
10

11 Based on this analysis, and subject to compliance with these conditions, the Council finds that
12 the applicant can design, construct and operate the facility to preclude structural failure of the
13 tower or blades that could endanger the public safety and to have adequate safety devices and
14 testing procedures designed to warn of impending failure and to minimize the consequences of
15 such failure.
16

17 Conclusions of Law

18

19 Based on the foregoing findings of fact and conclusions, and subject to compliance with the site
20 certificate conditions, the Council finds that the facility would comply with the Council's Public
21 Health and Safety Standards for Wind Facilities.
22

23 **IV.P. Cumulative Effects Standard for Wind Energy Facilities [OAR 345-024-0015]**

24

25 *To issue a site certificate for a proposed wind energy facility, the Council must find that the*
26 *applicant can design and construct the facility to reduce cumulative adverse environmental*
27 *effects in the vicinity by practicable measures including, but not limited to, the following:*
28

29 *(1) Using existing roads to provide access to the facility site, or if new roads are needed,*
30 *minimizing the amount of land used for new roads and locating them to reduce adverse*
31 *environmental impacts.*

32 *(2) Using underground transmission lines and combining transmission routes.*

33 *(3) Connecting the facility to existing substations, or if new substations are needed,*
34 *minimizing the number of new substations.*

35 *(4) Designing the facility to reduce the risk of injury to raptors or other vulnerable wildlife*
36 *in areas near turbines or electrical equipment.*

37 *(5) Designing the components of the facility to minimize adverse visual features.*

38 *(6) Using the minimum lighting necessary for safety and security purposes and using*
39 *techniques to prevent casting glare from the site, except as otherwise required by the*
40 *Federal Aviation Administration or the Oregon Department of Aviation.*
41
42
43
44

Findings of Fact

This standard requires the use of practicable measures to reduce the “cumulative adverse environmental effects” compared to possible wind energy facility effects in the absence of those measures. Merriam-Webster online dictionary defines “practicable” as: “Capable of being put into practice or of being done or accomplished: Feasible.” The standard is limited to environmental effects that are capable of being reduced and does not require the Council to find that a wind energy facility would have no cumulative environmental impacts.³⁸⁰

The applicant addressed the Cumulative Effects Standard for Wind Energy Facilities in Exhibit DD, which includes information regarding the measures specified in the standard to reduce cumulative adverse environmental effects.

Access Roads

OAR 345-024-0015(1) encourages the use of existing roads for facility site access, minimizing the amount of land used for new roads, and locating new roads in such a manner that reduces adverse environmental impacts. The applicant explained that the facility would utilize up to 73 miles of access roads, of which approximately 61 miles would be new and 12 miles would be improvements to existing roads. Location, route, slope, and road ownership limit the ability of the applicant to utilize other existing farm roads during facility construction and operation. As explained in Exhibit B of the ASC, newly constructed and improved access roads would result in a 39-foot temporary impact corridor and a 16-foot permanent impact corridor. The applicant would site new access roads along farm field edges to limit overall impacts to soils, habitat and agricultural practices. In addition, the applicant would be required to obtain a NPDES-1200 C permit to manage stormwater runoff during proposed facility construction; the NPDES-1200 C contains best management practices required to reduce and minimize sediment and erosion from stormwater run-off. Compliance with the NPDES-1200 C permit would minimize soil and agricultural impacts during access road improvements and construction.

Based on the evidence in the record, the Council finds that the applicant has demonstrated that it would use existing roads where practicable to provide access to the facility site, and where new roads would be needed they would be located to reduce adverse environmental impacts and constructed in a manner that minimizes the amount of land used.

³⁸⁰ On the record of the public hearing, Ms. Gilbert/FGRV and T. Lindsay noted the lack of a cumulative impact assessment of the proposed facility and other energy developments on wildlife and resources of the state. Ms. Gilbert/FGRV provided her comments on the ASC submitted to the Umatilla County Planning Department in August 2015. The department noted that the Council’s Cumulative Effects Standard for Wind Energy Facilities requires an applicant to demonstrate that the proposed facility could be designed and constructed to reduce cumulative adverse environmental impacts from proposed facility roads, transmission lines, substations, visual impacts and lighting. The Council concurs with the department that the evaluation of cumulative impacts from existing and proposed wind developments requested by Ms. Gilbert/FGRV and T. Lindsay is not required to satisfy an applicable Council standard. WRWAPPDoc100 DPO Public Comment_I. Gilbert 2016-06-06; WRWAPPDoc115 DPO Public Comment_T. Lindsay 2016-06-06.

1
2 *Transmission Lines and Substations*
3

4 OAR 345-024-0015(2) and (3) encourage proposed wind facilities to utilize underground
5 transmission lines, combine transmission routes and minimize the number of new substations.
6 As described in the ASC, the facility includes underground and, potentially in some locations,
7 aboveground 34.5-kV collector lines, three onsite collector substations and up to two, parallel
8 overhead, 230–kV intraconnection transmission lines.³⁸¹
9

10 The applicant stated that the collector lines, wherever feasible, would be installed underground
11 within narrow trenches, typically 3 feet below ground. However, in some instances, due to site-
12 specific conditions, the collector lines would be installed on aboveground wooden or steel pole
13 structures to allow the collector cables to span terrain such as canyons and intermittent
14 streams, thereby reducing environmental impacts.³⁸² The applicant estimated that the facility
15 would include up to 88 miles of underground collector lines and up to 11 miles of overhead
16 collector lines.³⁸³
17

18 The new overhead 230-kV intraconnection transmission line(s) would extend approximately 32
19 miles and would connect a collector substation located in Wheatridge East to collector
20 substations located in Wheatridge West. The transmission line(s) would be supported by 60-
21 foot tall H-frame or steel monopole structures sited 400 to 800 feet apart. The transmission
22 line, as explained in Exhibit B of the ASC, would require a 150-foot right-of-way which would
23 extend 75 feet on either side of the centerline. The applicant would site the intraconnection
24 transmission lines to avoid high ground and public roads to minimize visual impacts, and far
25 from existing residences to avoid noise and electromagnetic impacts.
26

27 As explained in Exhibit B, the applicant would construct up to three collector substations – up
28 to two substation located in Wheatridge West and one collector substation located in
29 Wheatridge East. The substations are necessary to convert the 34.5 kV power from the
30 collector system to 230-kV for efficient transmission to the power grid. The applicant did not
31 propose construction or operation of a substation that would connect the facility to the grid,
32 which would be provided by a third-party. The applicant indicated that the substation would be
33 utilized by multiple parties and would not be dedicated solely for use by the facility. Multi-use
34 of the substation would reduce the overall number of substations necessary for operation of
35 the facility and other energy facilities and utilities in the area.
36

37 Based on the evidence in the record, the Council finds the applicant has demonstrated that it
38 can reduce cumulative adverse environmental effects in the vicinity by minimizing aboveground
39 transmission line routes and minimizing the number of new substations.
40

³⁸¹ ASC, Exhibit DD, p. 4.

³⁸² ASC, Exhibit DD, p. 5.

³⁸³ ASC, Exhibit B, pp. 6-7.

Wildlife Protection

OAR 345-024-0015(4) encourages facility design that reduces the risk of injury to raptors or other vulnerable wildlife in areas near turbines or electrical equipment. A more detailed discussion of impacts and mitigation of potential adverse impacts to wildlife are addressed in Sections IV.G, *Fish and Wildlife Habitat* and IV.H, *Threatened and Endangered Species* of this order.

To minimize raptor injury, the applicant would design the facility using the suggested practices outlined by the Avian Power Line Interaction Committee, which includes minimum spacing requirements and the use of anti-perch guards.³⁸⁴ Additionally, the applicant would site the facility predominately within existing agricultural fields and utilizing existing access roads to the greatest extent practicable to avoid impacts to wetlands and to critical or Category 1 habitat, and to minimize impacts to other important habitat types. As explained in Exhibit DD of the ASC, the applicant would implement the following measures to reduce and avoid wildlife impacts:

- Conduct raptor nest monitoring
- Implement seasonal construction timing restrictions
- Employ on-site environmental monitors during construction;
- Implement dust abatement measures;
- Observe low speed limits;
- Implement measures to control the spread of invasive weed species; and,
- Restore disturbed areas as soon as practicable following completion of construction, as outlined in the Revegetation Plan

As presented in Exhibit DD, and as required by the conditions in Section IV.H and IV.I, *Fish and Wildlife Habitat* and *Threatened and Endangered Species* of this final order, the applicant would be required to implement and comply with requirements and measures established in the Habitat Mitigation Plan and the Wildlife Monitoring and Mitigation Plan.

Based on the evidence in the record and subject to compliance with these site certificate conditions, the Council finds the applicant has demonstrated that it can reduce cumulative adverse environmental effects in the vicinity by designing the facility to reduce the risk of injury to raptors or other vulnerable wildlife in areas near turbines or electrical equipment.

Visual Features

OAR 345-024-0015(5) encourages the certificate holder to design a facility to minimize adverse visual features. Exhibit R in the ASC, and Section IV.J, *Scenic Resources* of this order provide a

³⁸⁴ ASC, Exhibit DD, p. 5.

1 more detailed discussion of visual impacts, mitigation measures, and site certificate conditions
2 to minimize the visual impacts of the proposed facility.

3
4 The most visible facility components would be the turbine towers; aboveground 34-kV collector
5 lines; the 35-mile long 230-kV transmission line(s); and 12 meteorological towers up to 328 feet
6 high.³⁸⁵ The turbine blade tips could be as high as 492 feet, and steel monopole or H-frame
7 structures could be as high as 120 feet or 85 feet above grade, respectively.

8
9 The applicant would implement the following measures to further reduce any potential visual
10 impacts from the facility:

- 11
12 (a) The O&M buildings would be designed and constructed to be generally consistent with
13 the character of agricultural buildings used by farmers or ranchers in the area, and the
14 buildings finished in a neutral color to blend with the surrounding landscape;
15 (b) Substation structures would be finished in neutral colors to blend with the surrounding
16 landscape;
17 (c) Lighting would be kept to a minimum necessary, and designed to prevent offsite glare;
18 (d) No advertising or commercial signage would be displayed on any part of the proposed
19 facility;
20 (e) Vegetation clearing and ground disturbance would be limited to the minimum area
21 necessary to safely and efficiently install the facility equipment;
22 (f) Access roads and other areas of ground disturbance would be watered during
23 construction, as needed, to avoid the generation of airborne dust; and
24 (g) Temporary impact areas would be restored and revegetated as soon as practicable
25 following completion of construction.

26
27 The measures described above are included in Scenic Resources Condition 2, which also
28 requires the certificate holder to use neutral colors and low-reflectivity for facility components
29 and reduce outdoor lighting impacts from collector substations and operations and
30 maintenance buildings.

31
32 Based on the evidence in the record and subject to compliance with these site certificate
33 conditions, the Council finds the applicant has demonstrated that it can reduce cumulative
34 adverse environmental effects in the vicinity by designing the components of the facility to
35 minimize adverse visual features.

36 37 *Lighting*

38
39 OAR 345-024-0015(6) requires the use of techniques to prevent casting glare from the site and
40 the use of minimum lighting necessary for safety and security purposes, except as otherwise
41 required by the Federal Aviation Administration and the Oregon Department of Aviation. As
42 provided in Exhibit DD of the ASC, the applicant proposed that intensity of exterior lighting and

³⁸⁵ ASC, Exhibit B, p. 13.

1 the number of aviation warning lights required by the FAA on turbines would be minimized
2 while complying with FAA requirements.

3
4 In Section IV.J, *Scenic Resources* of this final order the Council adopts Scenic Resources
5 Condition 1, requiring the certificate holder to implement mitigation measures for the impacts
6 of nighttime lighting, including the use of downward directed and hooded lights on facility
7 structures and use of sensors and timers to keep lights off when not needed.

8
9 Based on the evidence in the record and subject to compliance with these site certificate
10 conditions, the Council finds the applicant has demonstrated that it can reduce cumulative
11 adverse environmental effects in the vicinity by designing the components of the facility to
12 minimize the adverse impacts of lighting.

13
14 *Other*

15
16 No other practicable measures were identified in the ASC or by the Council to reduce the
17 cumulative adverse environmental impacts from the design and construction of the facility.

18
19 **Conclusions of Law**

20
21 Based on the foregoing findings of fact and conclusions, and subject to compliance with the site
22 certificate conditions, the Council finds that the facility would comply with the Council's
23 Cumulative Effects Standards for Wind Energy Facilities.

24
25 **IV.Q. Siting Standards for Transmission Lines [OAR 345-024-0090]**

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

29
30 *(1) Can design, construct and operate the proposed transmission line so that alternating*
31 *current electric fields do not exceed 9 kV per meter at one meter above the ground*
32 *surface in areas accessible to the public;*

33
34 *(2) Can design, construct and operate the proposed transmission line so that induced*
35 *currents resulting from the transmission line and related or supporting facilities will be*
36 *as low as reasonably achievable.*

37
38 **Findings of Fact**

39
40 The siting standard for transmission lines addresses safety hazards associated with electric and
41 magnetic fields generated by high-voltage transmission lines. OAR 345-024-0090(1) sets a limit
42 for electric fields from transmission lines of not more than 9 kV per meter at 1 meter above the
43 ground surface in areas that are accessible to the public. Section (2) requires the certificate
44 holder design, construct and operate the line in a manner that reduces the risk posed by

1 induced current. The applicant provided information on the Siting Standards for Transmission
2 Lines in Exhibit AA of the ASC.

3 4 *Electric Fields*

5
6 As explained in Exhibit AA, electric fields around transmission lines are produced by the presence
7 of an electric charge, measured as voltage, on the energized conductor. Electric field strength is
8 directly proportional to the line's voltage; increased voltage produces a stronger electric field.
9 The strength of the electric field is inversely proportional to the distance from the conductors;
10 the electric field strength declines as the distance from the conductor increases.³⁸⁶

11
12 The applicant calculated the electric fields, measured in units of kilovolts per meter (kV/m),
13 which would be produced by both the aboveground 34.5-kV collector lines and the aboveground
14 230-kV intraconnection transmission line(s) using a model developed by the Electric Power
15 Research Institute (EPRI) that utilizes a methodology developed by BPA.³⁸⁷ To estimate the
16 maximum electric field strength, the calculations in the model were performed at mid-span
17 where the conductors sag to their lowest point between structures. As described in Exhibit AA,
18 the field strength estimates were then computed for a height of one meter (3.3 feet) above the
19 ground surface throughout the entire right-of-way, and extending outward 60.96 meters (200
20 feet) to each side of the centerline of the intraconnection transmission line.³⁸⁸

21
22 The applicant is considering two options for the proposed 34.5-kV overhead collector lines:
23 single-circuit monopole and double-circuit monopole. The applicant modeled the electric and
24 magnetic fields for each option using a minimum conductor-to-ground clearance of 25 feet.³⁸⁹
25 For the single-circuit 34.5-kV collector lines on monopoles, the calculated maximum electric field
26 strength at 1 meter above ground surface was estimated at 0.34 kV per meter, while the double-
27 circuit option yielded a maximum of 0.23 kV per meter.³⁹⁰

28
29 The applicant is also considering five options for the 230-kV overhead transmission line
30 structures: a single-circuit 2-pole (Configuration A); a single-circuit monopole (Configuration B); a
31 double-circuit monopole (Configuration C); a double-circuit monopole, with phased circuit
32 installation (Configuration D); and, two separate single-circuit monopole (Configuration E). The
33 applicant modeled electric and magnetic fields for each option using a minimum conductor-to-
34 ground clearance of 30 feet.³⁹¹ The calculated maximum electric field strength at one meter
35 above ground surface was 3.75 kV per meter for the single-circuit 2-pole (Configuration A); 3.39
36 kV per meter for the single-circuit monopole (Configuration B); 1.48 kV per meter for the

³⁸⁶ ASC, Exhibit AA, p. 2.

³⁸⁷ ASC, Exhibit AA, p. 5.

³⁸⁸ ASC, Exhibit AA, p. 5.

³⁸⁹ ASC, Exhibit AA, p. 14.

³⁹⁰ ASC, Exhibit AA, p. 25.

³⁹¹ ASC, Exhibit AA, p. 7.

double-circuit monopole (Configuration C); 2.17 kV per meter for the double-circuit monopole, with phased circuit installation (Configuration D); and, 2.35 kV per meter for the two separate single-circuit monopole (Configuration E) option.³⁹²

Based upon review of the applicant's calculations in Exhibit AA, the Council finds that the applicant's configurations of the aboveground segments of the 34.5-kV collector lines and the two, parallel 230-kV transmission line(s), for any of the five options, would not exceed 9 kV per meter at one meter above ground level.

Induced Voltage and Current

The Siting Standards for Transmission Lines requires the Council to find that the applicant "can design, construct and operate the proposed transmission line so that induced currents resulting from the transmission line and related or supporting facilities will be as low as reasonably achievable."

As explained in Exhibit AA, the flow of electricity in a transmission line can induce a small electric charge, or voltage, in nearby conductive objects. An induced electric charge can flow, or become electric current, when a path to ground is presented. Induced current can be observed as a continuous flow of electricity or, under some circumstances as a sudden discharge, commonly known as a 'nuisance shock.' Passing current through grounding wire minimizes the current that would otherwise flow through a person or animal that comes in contact with the object. Because the underground 34.5-kV cables would not create an electric field at the ground surface, they would not present an induced voltage risk. The aboveground 34.5-kV collector lines and 230-kV intraconnection transmission line(s) would however create an induced voltage risk.

The strength of a magnetic field is a function of the current (amperage) in the electric transmission line: the higher the current, the greater the strength of the magnetic field. Magnetic field strength decreases as the distance from the conductor increases. Magnetic field strength is at its maximum directly below transmission lines. Based on the analysis provided by the applicant, the predicted magnetic field strength for the five 230-kV transmission line options range from 65.84 milligauss (mG) to 259.25 mG at a point directly beneath the line. At the edge of the right-of-way, 100 feet away from centerline, the maximum modeled magnetic field strength is approximately 56.10 mG.³⁹³ For the aboveground 34.5-kV collector line configurations, the maximum predicted magnetic field strength ranges from 38.19 to 73.30 mG.³⁹⁴

Prior to construction, to prevent induced current and nuisance shocks, the applicant would identify and ground wire fences, pipelines, irrigation lines, metal roofs, and other objects near

³⁹² ASC, Exhibit AA, p. 18.

³⁹³ ASC, Exhibit AA, Table AA-5.

³⁹⁴ ASC, Exhibit AA, Table AA-7.

1 the intraconnection transmission line(s) and aboveground collector lines. To prevent induced
2 current and nuisance shocks of mobile equipment, which cannot be permanently grounded, the
3 applicant would increase the intraconnection transmission line height, shield the electric field,
4 or install access barriers, if determined necessary based on final design. The applicant stated
5 that facility construction and operation would follow proper grounding practices and adhere to
6 the National Electric Safety Code requirements, ensuring induced currents are maintained at
7 safe and reasonable levels. Based on measures the applicant would implement to reduce
8 human exposure to electric and magnetic fields, the Council adopts the following condition:³⁹⁵

9
10 **Siting Standard Condition 1:** During construction, the certificate holder shall take
11 reasonable steps to reduce or manage human exposure to electromagnetic fields,
12 including:

- 13
- 14 a. Constructing all aboveground collector and transmission lines at least 200 feet from
15 any residence or other occupied structure, measured from the centerline of the
16 transmission line.
 - 17 b. Constructing all aboveground 34.5-kV transmission lines with a minimum clearance of
18 25 feet from the ground.
 - 19 c. Constructing all aboveground 230-kV transmission lines with a minimum clearance of
20 30 feet from the ground.
 - 21 d. Developing and implementing a program that provides reasonable assurance that all
22 fences, gates, cattle guards, trailers, irrigation systems, or other objects or structures
23 of a permanent nature that could become inadvertently charged with electricity are
24 grounded or bonded throughout the life of the line (OAR 345-027-0023(4)).
 - 25 e. Providing to landowners a map of underground and overhead transmission lines on
26 their property and advising landowners of possible health and safety risks from
27 induced currents caused by electric and magnetic fields.
 - 28 f. Designing and maintaining all transmission lines so that alternating current electric
29 fields do not exceed 9 kV per meter at one meter above the ground surface in areas
30 accessible to the public.
 - 31 g. Increasing the intraconnection transmission line height, shielding the electric field, or
32 installing access barriers, if needed, to prevent induced current and nuisance shock of
33 mobile vehicles.
 - 34 h. Designing and maintaining all transmission lines so that induced voltages during
35 operation are as low as reasonably achievable.

³⁹⁵ In the draft proposed order, recommended Siting Standard Condition 1(d) stated, "Identifying and grounding wire fences, pipelines, irrigation lines, metal roofs, and other objects within the intraconnection transmission line(s) and aboveground collector lines right-of-way." Due to redundancy of the language and requirements of this provision with recommended Site Specific Condition 1 and Land Use Condition 29, as recommended in the draft proposed order, Site Specific Condition 1 and Land Use Condition 29 were incorporated into recommended Siting Standard Condition 1 and the language of Siting Standard Condition 1 (d) and Land Use Condition 29 were deleted in the proposed order.

- i. Designing, constructing and operating the transmission line in accordance with the requirements of the 2012 Edition of the National Electrical Safety Code approved on June 3, 2011 by the American National Standards Institute (OAR 345-027-0023(4)).
- j. Implement a safety protocol to ensure adherence to NESC grounding requirements

On the record of the public hearing, Ms. Gilbert/FGRV and T. Lindsay commented that impacts to safety and health of people and animals from EMF from the transmission line needs to be addressed. Ms. Gilbert/FGRV further requested that the Council impose a condition requiring the certificate holder to document the rating of EMF at ground level for buried transmission lines of different voltages and depths as well as aboveground transmission lines of differing voltages used at the site.³⁹⁶

While not specifically an EMF standard, the Siting Standards for Transmission Lines (OAR 345-024-0090) establish limits for alternating current electric fields and induced currents from transmission lines. As presented above, the applicant modeled EMF from the intraconnection transmission line. Results of the modeling would not exceed the 9 kV per meter at one meter above ground surface limit pursuant to OAR 345-024-0090(1). Further, Siting Standard Condition 1 includes measures to reduce or manage exposure to EMF. The requirements established in this condition include designing and maintaining all transmission lines so that alternating current electric fields do not exceed 9 KV per meter at one meter above the ground surface in areas accessible to the public. Pursuant to OAR 345-026-0048, following issuance of a site certificate, the certificate holder is responsible for developing and implementing a plan that verifies compliance with each site certificate condition. Therefore, the measures proposed by Ms. Gilbert/FGRV would be achieved through compliance with OAR 345-026-0048 and Siting Standard Condition 1.

On the record of the June 6, 2016 public hearing, D. Richards requested that underground collector lines be placed in conduit to ensure adequate protection from wildlife impacts.³⁹⁷ As presented above, Siting Standard Condition 1 would require underground collector lines be constructed in accordance with NESC standards. NESC standards provide specifications for placement of underground lines at certain burial depths (direct buried lines) and lines placed within conduit, but do not establish a requirement for underground lines to be placed in conduit. Therefore, the Council would not have the authority to impose the requirement requested by D. Richards.

In a comment letter, the Oregon Public Utilities Commission (PUC) recommended conditions to ensure compliance with applicable safety requirements.³⁹⁸ In accordance with the PUC request, and in order to ensure compliance with OAR 345-024-0090, the Council adopts the following conditions:

³⁹⁶ WRWAPPDoc68 DPO Public Comment_I. Gilbert 2016-05-19; WRWAPPDoc115 DPO Public Comment_T. Lindsay 2016-06-06

³⁹⁷ WRWAPPDoc97 DPO Public Comment_D. Richards 2016-06-06

³⁹⁸ WRWAPPDoc49, Agency Comments PUC, 02-06-2015.

Siting Standard Condition 2: Prior to construction, the certificate holder shall schedule a time to brief the OPUC Safety, Reliability, and Security Division (Safety) Staff as to how it will comply with OAR Chapter 860, Division 024 during design, construction, operations, and maintenance of the facilities.

Siting Standard Condition 3: During operation, the certificate holder shall:

(1) Update the OPUC Safety Staff as to how the operator will comply with OAR Chapter 860, Division 024 on an ongoing basis considering future operations, maintenance, emergency response, and alterations until facility retirement.

(2) File the following required information with the Commission:

a. 758.013 Operator of electric power line to provide Public Utility Commission with safety information; availability of information to public utilities. (1) Each person who is subject to the Public Utility Commission's authority under ORS 757.035 and who engages in the operation of an electric power line as described in ORS 757.035 must provide the commission with the following information before January 2 of each even-numbered year:

- i. The name and contact information of the person that is responsible for the operation and maintenance of the electric power line, and for ensuring that the electric power line is safe, on an ongoing basis; and
- ii. The name and contact information of the person who is responsible for responding to conditions that present an imminent threat to the safety of employees, customers and the public.
- iii. In the event that the contact information described in subsection (1) of this section changes or that ownership of the electric power line changes, the person who engages in the operation of the electric power line must notify the commission of the change as soon as practicable, but no later than within 90 days.
- iv. If the person described in subsection (1) of this section is not the public utility, as defined in ORS 757.005, in whose service territory the electric power line is located, the commission shall make the information provided to the commission under subsection (1) of this section available to the public utility in whose service territory the electric power line is located. [2013 c.235 §3]

(3) Provide OPUC Safety Staff with:

a. Maps and Drawings of routes and installation of electrical supply lines showing:

- Transmission lines and structures (over 50,000 Volts)
- Distribution lines and structures - differentiating underground and overhead lines (over 600 Volts to 50,000 Volts)
- Substations, roads and highways

b. Plan and profile drawings of the transmission lines (and name and contact information of responsible professional engineer).

Based upon review of the applicant's evaluation presented in Exhibit AA, the Council finds that the applicant can design, construct and operate the transmission and collector lines so that induced currents and nuisance shocks would be as low as reasonably achievable.

Conclusions of Law

Based on the foregoing findings of fact and conclusions, and subject to compliance with the site certificate conditions, the Council finds that the facility would comply with the Council's Siting Standards for Transmission Lines.

IV.R. Noise Control Regulations [OAR 340-035-0035]

(1) Standards and Regulations:

(b) New Noise Sources:

(B) New Sources Located on Previously Unused Site:

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

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

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

(I) The increase in ambient statistical noise levels is based on an assumed background L50 ambient noise level of 26 dBA or the actual ambient background level. The person owning the wind energy facility may conduct measurements to determine the actual ambient L10 and L50 background level.

(II) The "actual ambient background level" is the measured noise level at the appropriate measurement point as specified in subsection (3)(b) of this rule using generally accepted noise engineering measurement practices. Background noise measurements shall be obtained at the appropriate measurement point, synchronized with windspeed measurements of hub height conditions at the nearest wind turbine location. "Actual ambient background level" does not include noise generated or caused by the wind energy facility.

- (III) *The noise levels from a wind energy facility may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above the limits specified in Table 8), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. The easement or covenant must authorize the wind energy facility to increase the ambient statistical noise levels, L10 or L50 on the sensitive property by more than 10 dBA at the appropriate measurement point.*
- (IV) *For purposes of determining whether a proposed wind energy facility would satisfy the ambient noise standard where a landowner has not waived the standard, noise levels at the appropriate measurement point are predicted assuming that all of the proposed wind facility's turbines are operating between cut-in speed and the wind speed corresponding to the maximum sound power level established by IEC 61400-11 (version 2002-12). These predictions must be compared to the highest of either the assumed ambient noise level of 26 dBA or to the actual ambient background L10 and L50 noise level, if measured. The facility complies with the noise ambient background standard if this comparison shows that the increase in noise is not more than 10 dBA over this entire range of wind speeds.*
- (V) *For purposes of determining whether an operating wind energy facility complies with the ambient noise standard where a landowner has not waived the standard, noise levels at the appropriate measurement point are measured when the facility's nearest wind turbine is operating over the entire range of wind speeds between cut-in speed and the windspeed corresponding to the maximum sound power level and no turbine that could contribute to the noise level is disabled. The facility complies with the noise ambient background standard if the increase in noise over either the assumed ambient noise level of 26 dBA or to the actual ambient background L10 and L50 noise level, if measured, is not more than 10 dBA over this entire range of wind speeds.*
- (VI) *For purposes of determining whether a proposed wind energy facility would satisfy the Table 8 standards, noise levels at the appropriate measurement point are predicted by using the turbine's maximum sound power level following procedures established by IEC 61400-11 (version 2002-12), and assuming that all of the proposed wind facility's turbines are operating at the maximum sound power level.*
- (VII) *For purposes of determining whether an operating wind energy facility satisfies the Table 8 standards, noise generated by the energy facility is measured at the appropriate measurement point when the facility's nearest wind turbine is operating at the windspeed corresponding to the maximum sound power level and no turbine that could contribute to the noise level is disabled.*

Findings of Fact

The applicant addressed compliance with the DEQ noise regulations in Exhibit X of the ASC. The facility would be a new industrial or commercial noise source under OAR 340-035-0035 because construction of the facility would commence after January 1, 1975.³⁹⁹ There is no evidence in the record that the facility site has been in industrial or commercial use at any time during the last 20 years, therefore the site is considered a previously unused site and evaluated per the requirements of OAR 340-035-0035(1)(b)(B).⁴⁰⁰ The requirements of OAR 340-035-0035(1)(b)(B)(iii) apply to noise levels generated by a “wind energy facility.”⁴⁰¹ Therefore, the facility is reviewed under OAR 340-035-0035(1)(b)(B)(iii).

Under the regulation, the noise generated by a new wind energy facility located on a previously unused site must comply with two tests: the “ambient noise degradation test” and the “maximum allowable noise test.” Under the ambient noise degradation test, facility-generated noise must not increase the ambient hourly L10 or L50 noise levels (defined in Table NC-1, *Statistical Noise Limits for Industrial and Commercial Noise Sources* below) at any noise sensitive property by more than 10 dBA when turbines are operating “between cut-in speed and the wind speed corresponding to the maximum sound power level.” To show that a proposed facility complies with this test, the applicant may use an assumed ambient hourly L50 noise level of 26 dBA or measure the actual ambient hourly noise levels at the receiver in accordance with the procedures specified in the regulation. In this case, the applicant has elected to use an assumed ambient hourly L50 noise level of 26 dBA.

To demonstrate compliance with the ambient noise degradation test, the noise generated during proposed facility operation must not cause the hourly L₅₀ noise level at any noise-sensitive property to exceed 36 dBA. However, OAR 340-035-0035(1)(b)(B)(iii)(III) relieves the applicant from having to show compliance with the ambient noise degradation test “if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located” (a “noise waiver”).

Under the maximum allowable noise test at OAR 340-035-0035(1)(b)(B)(i) a wind energy facility may not exceed the noise levels specified in Table 8 of the noise rules and presented in Table NC-1, *Statistical Noise Limits for Industrial and Commercial Noise Sources*. Pursuant to OAR 340-035-0035(1)(b)(B)(iii)(III), it is not possible for a property owner to waive an exceedance under the maximum allowable noise test.

³⁹⁹ OAR 340-035-0015(33) defines “new industrial or commercial noise source.” Agricultural activities and silvicultural activities generating infrequent noise emissions are not considered industrial or commercial operations under the definition.

⁴⁰⁰ OAR 340-035-0015(47) defines “previously unused industrial or commercial site.”

⁴⁰¹ OAR 340-035-0035(1)(b)(A).

Table NC-1: Statistical Noise Limits for Industrial and Commercial Noise Sources

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

Noise Sources – Construction

OAR 340-035-0035(5)(g) specifically exempts noise caused by construction activities. Construction of the facility would produce localized, short-duration noise levels similar to those produced by any large construction project with heavy construction equipment. The applicant proposed mitigation measures in the ASC to minimize temporary noise levels generated during construction of the facility. OAR 345-027-0020(10) states that “[t]he Council shall include as conditions in the site certificate all representations in the ASC and supporting record the Council deems to be binding commitments made by the applicant.” Therefore, the Council considers the proposed mitigation as binding commitments and adopts the following condition:

Noise Control Condition 1: During construction, to reduce construction noise impacts at nearby residences, the certificate holder shall:

- a. Establish and enforce construction site and access road speed limits;
- b. Utilize electrically-powered equipment instead of pneumatic or internal combustion powered equipment, where feasible;
- c. Locate material stockpiles and mobile equipment staging, parking, and maintenance areas as far as practicable away from noise sensitive properties;
- d. Utilize noise-producing signals, including horns, whistles, alarms, and bells for safety warning purposes only;
- e. Equip all noise-producing construction equipment and vehicles using internal combustion engines with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed “package” equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment; and,
- f. Establish a noise complaint response system. All construction noise complaints will be logged within 48 hours of issuance. The construction supervisor shall have the responsibility and authority to receive and resolve noise complaints. A clear appeal

process to the owner shall be established prior to the start of construction that will allow for resolution of noise problems that cannot be resolved by the site supervisor in a reasonable period of time. Records of noise complaints during construction must be made available to authorized representatives of the department upon request.

Noise Sources - Operation

The applicant's facility would include up to 292 wind turbines, and up to three substation transformers. The generator installed in each turbine would have a nameplate rating of 1.7 to 2.5 MW, depending on the turbine model the applicant selects. The transformer proposed for the Wheatridge East substation would be no greater than 135 megavolt ampere (MVA) and the two transformers proposed for the Wheatridge West substation would be no greater than 220 MVA, each.

For its analysis, the applicant assumed the layout utilizing the minimum (200) and maximum number of turbines proposed (292). The applicant conducted acoustic modeling using the Computer Aided Noise Abatement (CadnaA), version 4.4.145 software program to make the predictions of peak noise levels at noise-sensitive properties within the analysis area. The program includes sound propagation factors adopted from International Organization for Standardization's (ISO) 9613-2 "Attenuation of Sound during Propagation Outdoors" to account for geometric divergence, atmospheric absorption, reflection from surfaces, screening by topography and obstacles, terrain complexity and ground effects, source directivity factors, seasonal foliage effects, and meteorological conditions.

The applicant described the input data used for each turbine type that it used in its acoustic modeling. The applicant provided a summary of sound power data for the selected GE 1.7-103 and 2.5-120 turbines, correlated by wind speed. The summaries include data for operation only in NRO modes, which include a range of settings provided by the manufacturer to minimize sound power levels emanating from turbines. The summaries are provided in Table X-5 of Exhibit K.⁴⁰² The applicant also included an allowance of +2 dBA to account for uncertainty.⁴⁰³ The applicant provided octave band data including NRO mode for the two proposed turbine types in Table X-6 of Exhibit X.⁴⁰⁴ The identified tables indicate the maximum overall A-weighted sound power level output is 107.0 dBA for the GE 1.7-103 turbines and 106.0 dBA for the GE 2.5-120 turbines. The tables provided also identify decreasing maximum sound power level output under identified NRO modes.

In addition, the applicant provided the expected sound power levels by octave band center frequency for the two different types transformers proposed at the Wheatridge East substation

⁴⁰² ASC, Exhibit X, p. 11.

⁴⁰³ ASC, Exhibit X, p.10.

⁴⁰⁴ ASC, Exhibit X, Table X-6.

1 and the Wheatridge West substation.⁴⁰⁵ As depicted in Exhibit X Table X-7, the applicant used a
2 maximum A-weighted sound power level of 99.5 dBA as the total sound power level expected
3 from each Wheatridge West transformer and a maximum A-weighted sound power level of
4 94.7 dBA as the total power level expected from the Wheatridge East transformer.⁴⁰⁶

5 6 *Noise Modeling Results and Compliance with Regulations*

7
8 The applicant provided the noise modeling results in Exhibit X and explained that the results
9 were presented for Wheatridge East and Wheatridge West assuming all turbines would be
10 operating concurrently. The applicant stated that the facility would be operated with most
11 turbines at the noise sensitive receptors in NRO mode and identified two distinct NRO
12 approaches, Approach 1 and Approach 2. Under Approach 1, the applicant would operate a
13 large number of turbines in minimal NRO modes (i.e. less noise reduction). The modeled sound
14 level isopleths using Approach 1 are shown on Exhibit X Figure X-1 for the GE 1.7-103 turbine
15 layout and Figure X-3 for the GE 2.5-120 turbine layout. Under Approach 2, the applicant would
16 operate a small number of turbines in the maximum NRO mode (i.e. more noise reduction). The
17 modeled sound level isopleths using Approach 2 are shown on Exhibit X Figure X-2 for the GE
18 1.7-103 turbine layout and on Figure X-4 for the GE 2.5-120 turbine layout.

19
20 Results of the noise modeling for the GE 1.7-103 turbine layout is presented in Table NC-2,
21 *Predicted Sound Levels (GE 1.7-103 Turbine Layout) at Noise Sensitive Receivers within 1-mile of*
22 *Site Boundary*.⁴⁰⁷ Results of the noise modeling for the GE 2.5-120 turbine layout is presented in
23 Table NC-3, *predicted Sound Levels (GE 2.5-120 Turbine Layout) at Noise Sensitive Receivers*
24 *within 1-mile of Site Boundary*.⁴⁰⁸

⁴⁰⁵ The applicant stated that there would be two transformers located in the Wheatridge West substation and one transformer located in the Wheatridge East substation.

⁴⁰⁶ ASC, Exhibit X, p.12.

⁴⁰⁷ Table NC-2 is a condensed version of Table X-8 included in Exhibit X. ASC, Exhibit X, pp. 15-17.

⁴⁰⁸ Table NC-3 is a condensed version of Table X-9 included in Exhibit X. ASC, Exhibit X, pp. 18-20.

**Table NC-2: Predicted Sound Levels (GE 1.7-103 Turbine Layout) at Noise Sensitive
Receptors within 1-mile of Site Boundary**

Noise Sensitive Property	Predicted Sound Level ^{1,2}			Noise Sensitive Property	Predicted Sound Level ^{1,2}	
	NRO Approach 1	NRO Approach 2			NRO Approach 1	NRO Approach 2
1	31	33		25	44	47
2	36	36		26	45	44
3	36	36		27	36	36
4	42	40		28	46	46
5	27	27		29	34	36
6	42	44		30	29	28
7	44	47		31	45	45
8	43	45		32	45	45
9	43	44		33	36	36
10	43	45		34	36	36
11	43	42		35	35	36
12	34	34		36	33	33
13	33	33		37	38	38
14	33	33		38	34	34
15	36	36		39	40	40
16	43	42		40	34	34
17	36	36		41	22	23
18	27	28		42	4	4
19	27	28		43	14	14
20	31	31		44	38	38
21	34	34		45	38	38
22	34	34		46	37	37
23	33	33		47	36	36
24	32	33		48	46	46
Notes:						
1. Values presented in bold and shaded cells represent an exceedance of OAR 345-035-0035 ambient noise degradation standard.						
2. The exact exceedance is not yet known because the facility layout has not yet been finalized.						

1

**Table NC-3: Predicted Sound Levels (GE 2.5-120 Turbine Layout) at Noise Sensitive
Receptors within 1-Mile of Site Boundary**

Noise Sensitive Property	Predicted Sound Level ^{1,2}			Noise Sensitive Property	Predicted Sound Level ^{1,2}	
	NRO Approach 1	NRO Approach 2			NRO Approach 1	NRO Approach 2
1	31	31		25	45	45
2	36	36		26	43	43
3	36	36		27	36	36
4	42	42		28	43	43
5	25	25		29	34	34
6	43	43		30	27	37
7	45	45		31	42	42
8	44	44		32	42	42
9	44	44		33	36	36
10	44	44		34	33	33
11	43	44		35	35	35
12	34	34		36	31	31
13	33	33		37	36	36
14	33	33		38	31	31
15	36	36		39	38	38
16	44	45		40	33	33
17	35	35		41	20	20
18	28	27		42	2	2
19	27	27		43	11	11
20	31	29		44	36	36
21	32	32		45	36	36
22	31	31		46	35	35
23	31	31		47	34	34
24	32	32		48	44	44
Notes: 1. Values presented in bold and shaded cells represent an exceedance of OAR 345-035-0035 ambient noise degradation standard. 2. The exact exceedance is not yet known because the facility layout has not yet been finalized.						

2

3 Based upon the applicant's noise modeling using the preliminary facility layouts, the GE 1.7-103
 4 turbine layout is predicted to exceed the ambient noise degradation limit at 19 noise sensitive
 5 receptors when operated under either NRO Approach 1 or NRO Approach 2, and the GE 2.5
 6 turbine layout is predicted to exceed the ambient noise degradation limit at 15 noise sensitive
 7 receptors when operated under either NRO Approach 1 or NRO Approach 2. The NRO mode

1 modeling results indicate that the sound levels are not expected to exceed the maximum levels
2 described in Table NC-1 under the maximum allowable noise test at any of the identified noise
3 sensitive receptors. The applicant stated the facility would never be operated in full power
4 mode, and therefore the applicant did not provide full power mode results.

5
6 In accordance with OAR 340-035-0035(1)(b)(iii)(III) the noise levels from a wind energy facility
7 may increase the ambient statistical noise levels L10 and L50 by more than 10 dBA (but not
8 above the limits specified in Table 8), if the person who owns the noise sensitive property
9 executes a legally effective easement or real covenant.” Therefore, to demonstrate compliance
10 with the DEQ noise rules during proposed facility operation, the certificate holder must either
11 negotiate and execute legally effective easements or real covenants with the affected property
12 owners authorizing the facility to increase the ambient statistical noise levels more than 10
13 dBA; or, in the alternative, the certificate holder must change the layout, reduce the number of
14 turbines, and/or increase the NRO mode at certain turbines to reduce the noise levels to levels
15 that would not exceed the ambient noise degradation limit. As explained by the applicant,
16 under either turbine layout and operating in either NRO Approach 1 or NRO Approach 2, the
17 modeling indicates that ambient noise degradation standard exceedances are expected to be
18 limited to those properties whose owners have signed a lease with the applicant and have
19 verbally indicated that they are willing to sign a noise waiver if necessary.⁴⁰⁹

20
21 To ensure that the final facility layout and turbine and transformer types would comply with
22 the noise control regulations, the Council adopts the following condition:⁴¹⁰

23
24 **Noise Control Condition 2:** Prior to construction, the certificate holder shall provide to
25 the department:

- 26 a. Information that identifies the final design locations of all facility components to be
27 built at the facility;
28 b. The maximum sound power level for the facility components and the maximum
29 sound power level and octave band data for the turbine type(s) and transformers

⁴⁰⁹ The property owners that have signed leases are referred to in Exhibit X as “participant” properties, while all other properties are referred to as “non-participant” parties. ASC, Exhibit X, p. 13.

⁴¹⁰ On the record of the public hearing, commenters raised issues regarding the proposed facility’s potential noise impacts to their property. W. and L. Seitz raised issues regarding health impacts from sleeplessness, headaches, annoyance and stress from noise associated with habitation in close proximity to wind turbines. The Council has authority to impose requirements to comply with applicable DEQ noise standards, which are designed to protect public health from noise related impacts. To ensure compliance with DEQ’s applicable maximum ambient statistical noise limit and ambient standards, Noise Control Conditions 2 and 3 would prohibit the certificate holder from operating in a manner that would exceed established noise limits unless noise waivers were first obtained by affected property owners allowing an exemption from satisfying the ambient degradation limit. Therefore, based on compliance with DEQ’s noise standards, imposed through Noise Control Conditions 2 and 3, potential adverse health impacts from the facility’s operational noise would be minimized. WRWAPPDoc115 DPO Public Comment_T. Lindsay 2016-06-06; WRWAPPDoc101 DPO Public Comment J_A Gould 2016-06-06; WRWAPPDoc86 DPO Public Comment_W. Seitz 2016-06-03.

- 1 selected for the facility based on manufacturers' warranties or confirmed by other
2 means acceptable to the department;
- 3 c. The results of the noise analysis of the final facility design performed in a manner
4 consistent with the requirements of OAR 340-035-0035(1)(b)(B) (iii)(IV) and (VI). The
5 analysis must demonstrate to the satisfaction of the department that the total noise
6 generated by the facility (including turbines and transformers) would meet the
7 ambient noise degradation test and maximum allowable test at the appropriate
8 measurement point for all potentially-affected noise sensitive properties, or that the
9 certificate holder has obtained the legally effective easement or real covenant for
10 expected exceedances of the ambient noise degradation test described (d) below.
11 The analysis must also identify the noise reduction operation (NRO) mode approach
12 that will be used during facility operation and include a figure that depicts the
13 turbines that will be operating in NRO mode and the associated dBA reduction level;
14 and,
- 15 d. For each noise-sensitive property where the certificate holder relies on a noise
16 waiver to demonstrate compliance in accordance with OAR 340-035-
17 0035(1)(b)(B)(iii)(III), a copy of the legally effective easement or real covenant
18 pursuant to which the owner of the property authorizes the certificate holder's
19 operation of the facility to increase ambient statistical noise levels L_{10} and L_{50} by
20 more than 10 dBA at the appropriate measurement point. The legally effective
21 easement or real covenant must: include a legal description of the burdened
22 property (the noise sensitive property); be recorded in the real property records of
23 the county; expressly benefit the property on which the wind energy facility is
24 located; expressly run with the land and bind all future owners, lessees or holders of
25 any interest in the burdened property; and not be subject to revocation without the
26 certificate holder's written approval.

27
28 The noise modeling results provided by the applicant included implementation of NRO
29 Approach 1 or NRO Approach 2 and the applicant expressly stated in Exhibit X that it would not
30 operate the facility in full power mode.⁴¹¹ The applicant stated in its response to a request for
31 additional information that they would "never operate in maximum sound power operational
32 mode."⁴¹² Because the applicant did not provide noise modeling analysis at the maximum
33 sound power level established by IEC 61400-11 for all wind facility turbines operating without
34 NRO restrictions, compliance with OAR 340-035-0035(1)(b)(B) requires that for purposes of this
35 facility the maximum sound power level must be construed to be the maximum NRO level
36 modeled by the applicant and, therefore, the maximum NRO level at which the facility may
37 operate. Accordingly, to ensure that the facility is not operated above the maximum NRO level
38 and to ensure that the NRO mode approach employed during operation results in compliance
39 with the applicable noise rules, the Council adopts the following condition:
40

⁴¹¹ ASC, Exhibit X, p. 13.

⁴¹² WRWAPPDoc55, Exhibit X RAI Responses, 04-15-15.

Noise Control Condition 3: During operation of the facility, the certificate holder shall only operate the facility in the NRO mode that is identified prior to construction pursuant to Noise Control Condition 2. After beginning operation of the facility, the certificate holder shall include a certification in its annual Compliance Report that the NRO mode turbines identified in the preconstruction analysis required by Noise Control Condition 2 are operating at or below the identified dBA reduction level.

Noise Control Regulations—Noise Complaints and Monitoring Program

Pursuant to the DEQ noise standards under OAR 340-035-0035(4)(a), the Council has authority to require the owner of an operating noise source to monitor and record the statistical noise levels upon written notification. In the event of a complaint regarding noise levels during proposed facility operation, the Council has the authority to act in the place of DEQ to enforce this provision to verify that the certificate holder is operating the facility in compliance with the noise control regulations.⁴¹³ Therefore, the Council adopts the following conditions:

Noise Control Condition 4: During operation, the certificate holder shall maintain a complaint response system to address noise complaints. The certificate holder shall notify the department within two working days of receiving a noise complaint related to the facility. The notification should include, but is not limited to, the date the certificate holder received the complaint, the nature of the complaint, the complainant's contact information, the location of the affected property, and any actions taken, or planned to be taken, by the certificate holder to address the complaint.

Noise Control Condition 5: During operation, in response to a complaint from the owner of a noise sensitive property regarding noise levels from the facility, the Council may require the certificate holder to monitor and record the statistical noise levels to verify that the certificate holder is operating in compliance with the noise control regulations. The monitoring plan must be reviewed and approved by the department prior to implementation. The cost of such monitoring, if required, shall be borne by the certificate holder.

Conclusions of Law

Based on the foregoing findings, and subject to compliance with the site certificate conditions, the Council finds that the facility would comply with the Noise Control Regulations in OAR 340-035-0035(1)(b)(B).

⁴¹³ On the record of the June 6, 2016 public hearing, Ms. Gilbert/FGRV and T. Lindsay commented that the state does not require developers to monitor facility-related noise. Ms. Gilbert/FGRV further requested the Council require the applicant to monitor operational noise and impose a requirement for the applicant to establish a process for receiving and responding to noise complaints. The department noted and Council concurs that Noise Control Conditions 4 and 5 include the requested noise complaint and monitoring program. WRWAPPDoc100 DPO Public Comment_I. Gilbert 2016-06-06; WRWAPPDoc115 DPO Public Comment_T. Lindsay 2016-06-06.

IV.S. Removal-Fill Law

The Oregon Removal-Fill Law (ORS 196.795 through 196.990) and Department of State Lands (DSL) regulations (OAR 141-085- 0500 through 141-085-0785) require a removal-fill permit if 50 cubic yards or more of material is removed, filled, or altered within any “waters of the state.”⁴¹⁴ The Council, in consultation with DSL, must determine whether a removal-fill permit is needed and if so, whether a removal-fill permit should be issued. The analysis area for wetlands and other waters of the state is the area within the site boundary.

Findings of Fact

The applicant stated that a removal-fill permit is not needed for the facility because the facility would not temporarily or permanently impact waters of the state. The applicant provided information regarding wetlands and other waters of the state in Exhibit J of the ASC, including a wetland delineation report included as attachment J-3.

The applicant conducted wetland delineation studies in September and October, 2013. The results of these studies are presented in Exhibit J, and summarized in Table J-1.⁴¹⁵ The applicant completed a wetland delineation report and submitted with the report with the ASC, included as attachment J-3 to Exhibit J. As shown on Table J-1, the wetland delineation study determined that there are four types of wetlands and other water features in the analysis area: palustrine emergent wetlands, ephemeral streams, intermittent streams, and perennial streams. Of these features, ephemeral streams were found to be the most common.

The applicant stated in Exhibit J that the facility would not impact waters of the state. The applicant proposed two potential alternative facility layout designs (the layout options are described in Exhibits B and C), and the applicant’s designs and analysis show that no waters of the state would be impacted by either turbine layout option.⁴¹⁶

The applicant stated that, depending on the ultimate facility layout and design, the facility may impact ephemeral streams. However, as described by the applicant and confirmed by DSL, ephemeral streams are not defined as waters of the state and are not subject to current state removal-fill requirements.⁴¹⁷

DSL reviewed the wetland delineation report and provided a concurrence letter in July 2015, in which DSL agreed with the wetland delineation and classifications.⁴¹⁸ As the applicant demonstrated in Exhibit J and associated wetland delineation report, the facility would not impact waters of the state; therefore, a removal-fill permit is not required.

⁴¹⁴ ORS 196.800(15) defines “Waters of this state.” The term includes wetlands and certain other waterbodies.

⁴¹⁵ ASC, Exhibit J, p. 5.

⁴¹⁶ ASC, Exhibit J, p. 6.

⁴¹⁷ ASC, Exhibit J, pp. 6 and 10. See also OAR 141-085-0510, and WRWAPPDoc003, DSL Concurrence, 07-01-2015, in which DSL agreed that ephemeral streams are exempt and not subject to current state removal-fill requirements.

⁴¹⁸ WRWAPPDoc003, DSL Concurrence, 07-01-2015.

Conclusions of Law

Based on the foregoing findings of fact and conclusions, the Council finds that a removal-fill permit is not needed for the facility.

IV.T. Water Rights

Under ORS Chapters 537 and 540 and OAR Chapter 690, the OWRD administers appropriation water rights and regulates the use of the water resources of the state. Under OAR 345-022-0000(1)(b), the Council must determine whether the proposed facility would comply with "...all other Oregon statutes and administrative rules identified in the project order...." The project order identifies these statutes and administrative rules governing use of water resources and water rights as applicable to the proposed facility.

Findings of Fact

The applicant has addressed these statutory and rule requirements in Exhibit O of the ASC. The applicant did not request a groundwater permit, a surface water permit, a water rights transfer, or any other specific water use license.

As explained in Exhibit O, during construction of the facility water would be used for dust control, road construction, and concrete mixing, as well as other incidental uses. The applicant estimated that approximately 56.6 million gallons of water would be necessary for facility construction, or 3.14 million gallons on average per month during the expected 18 months of construction. The applicant stated that if the facility was constructed during a particularly dry year with high temperatures, additional water would be used for dust control. Under a "worst case" estimate, the applicant could require 78 million gallons during construction, or approximately 4.3 million gallons per month.⁴¹⁹

The applicant stated in Exhibit O that all water for construction activities would be procured from municipal sources near the site boundary, including Hermiston Public Works, Stanfield Public Works, Boardman Public Works, and the Port of Morrow. The applicant also provided evidence of correspondence with those four municipal water suppliers, confirming that the suppliers expect to be able to provide the requested quantity of water. The Port of Morrow alone stated that it expects to be able to provide up to 6.5 million gallons per month, more than the applicant expects to need during the worst-case scenario.⁴²⁰

During operation of the facility, the applicant anticipates that it would source required water from one new well drilled onsite at each of two O&M buildings, and that each well would use less than 5,000 gallons per day. Wells that use less than 5,000 gallons of water per day for a

⁴¹⁹ ASC, Exhibit O, pp. 2-4.

⁴²⁰ ASC, Exhibit O, Table O-1, p. 5, and Attachments O-1 to O-4.

1 single industrial or commercial purpose are exempt from registration, permits, or ground water
2 right certificates.⁴²¹ The applicant calculated each of the two proposed new wells as a single
3 industrial purpose. The provisions of ORS 537.545 do require that the owner of the land on
4 which an exempt well is drilled provide to the OWRD a map showing the exact location of the
5 well, as well as pay a recording fee to OWRD. Additionally, ORS 537.765 requires that when a
6 new exempt well is drilled, or an existing well is altered, converted, or abandoned, a well log
7 containing specific information as described in ORS 537.765 must be filed with the Water
8 Resources Commission. These OWRD requirements are not permits or other approvals included
9 in or governed by the site certificate; the applicant must independently comply with the
10 provisions of ORS 537.454 and ORS 537.765 outside of the site certificate process.

11
12 The OWRD did not comment on the application.⁴²² However, based on the applicant's analysis
13 and calculations, the Council concurs that the applicant has established that it can provide
14 adequate water for construction and operation of the facility, in compliance with the Oregon
15 Groundwater Act.

16 **Conclusions of Law**

17
18
19 Based on the foregoing findings of fact, the Council concludes that the facility would comply
20 with the Oregon Ground Water Act of 1955 (ORS Chapters 537 and ORS Chapters 540 as
21 implemented through OAR Chapter 690.)
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⁴²¹ ORS 537.545(1)(f).

⁴²² WRWNOIDoc020 Agency Comment OWRD 2013-03-27. OWRD commented on the Notice of Intent, explaining that if municipal supplies are not available to provide needed construction purposes, a temporary authority under a limited license would be required from OWRD. (). The comment letter also noted that existing rights for agriculture water are not eligible to be used for construction purposes. The applicant would acquire water for construction purposes from the municipal sources noted above, and has demonstrated in Exhibit O that the municipal sources expect to have adequate supply to meet facility construction needs. The applicant did not propose to use water currently associated with irrigation rights (see ASC, Exhibit O, p. 5).

1 **V. CONCLUSIONS AND ORDER OF THE COUNCIL**

2
3 The applicant submitted an application to construct a wind energy facility in Morrow and
4 Umatilla counties. Subject to compliance with the conditions, the Council finds that the
5 preponderance of evidence on the record supports the following conclusions:
6

- 7 1. The Wheatridge Wind Energy Facility complies with the requirements of the Oregon
8 Energy Facility Siting Statutes, ORS 469.300 to 469.520.
9
10 2. The Wheatridge Wind Energy Facility complies with the standards adopted by the
11 Council pursuant to ORS 469.501.
12
13 3. The Wheatridge Wind Energy Facility complies with the statewide planning goals
14 adopted by the Land Conservation and Development Commission.
15
16 4. The Wheatridge Wind Energy Facility complies with all other Oregon statutes and
17 administrative rules identified in the project order as applicable to the issuance of a
18 site certificate for the proposed facility.
19

20 Based on the findings of fact, reasoning, conclusions of law in this order, the Council concludes
21 that the applicant has satisfied the requirements for issuance of a site certificate for the facility,
22 subject to the conditions set forth in this order.
23

Issued this 28th day of April, 2017

The OREGON DEPARTMENT OF ENERGY

By: 

Barry Beyeler, Chair

Oregon Energy Facility Siting Council

Attachment A: Draft Proposed Order Comment Index

Attachment A: Draft Proposed Order Comment Index					
Document ID	Date Received	Last Name	First Name	Organization	Consideration in Proposed Order
WRWAPPDoc111 WRWAPPDoc79	6/6/2016	Akers	Raymond		General support for the proposed facility is not addressed in the proposed order
WRWAPPDoc94	6/6/2016	Alldritt	David		General support for the proposed facility is not addressed in the proposed order
WRWAPPDoc112	6/6/2016	Buermann	Shane		General support for the proposed facility is not addressed in the proposed order
WRWAPPDoc102	6/6/2016	Burns	Jodie		General support for the proposed facility is not addressed in the proposed order
WRWAPPDoc84	6/1/2016	Cherry	Steve	Oregon Department of Fish and Wildlife	Section IV.H. Fish and Wildlife Habitat; Section IV.I. Threatened and Endangered Species
WRWAPPDoc108	6/6/2016	Cobb	Larry		General support for the proposed facility is not addressed in the proposed order
WRWAPPDoc90	6/6/2016	Cooper	Cain		General support for the proposed facility is not addressed in the proposed order
WRWAPPDoc76	5/19/2016	Cutsforth	Mark		General comment on transmission line location not addressed in the proposed order
WRWAPPDoc75 WRWAPPDoc 109	5/19/16; 6/6/16	Duvall	Lois		General support for the proposed facility is not addressed in the proposed order
WRWAPPDoc89	6/6/2016	Echenrode	Robert	Umatilla Electric Co-op	General support for the proposed facility is not addressed in the proposed order
WRWAPPDoc68 WRWAPPDoc73 WRWAPPDoc100	5/19/16; 6/6/16	Gilbert	Irene		IV.C. Council Review Process; III.A. Location and Site Boundary; III.B. The Facility; IV.A. General Standard of Review; IV.B. Organizational Expertise; IV.C. Structural Standard; IV.D. Soil Protection; IV.F. Protected Areas; IV.H Fish and Wildlife Habitat; IV.P. Cumulative Effects Standard for Wind Energy Facilities; IV.Q Siting Standards for Transmission Lines; IV.R. Noise Control Regulations
WRWAPPDoc101	6/6/2016	Gould	John		IV.E. Land Use; IV.R. Noise Control Regulations
WRWAPPDoc101	6/6/2016	Gould	Ashli		IV.E. Land Use; IV.R. Noise Control Regulations
WRWAPPDoc70 WRWAPPDoc103	5/19/16; 6/6/16	Gritz	Jeffrey		General support for the proposed facility is not addressed in the proposed order
WRWAPPDoc78	5/19/2016	Halstead	Pete		General support for the proposed facility is not addressed in the proposed order
WRWAPPDoc95	6/6/2016	Hanson	Daniel		General support for the proposed facility is not addressed in the proposed order
WRWAPPDoc72	5/19/2016	Harrison	Glenn		IV.F. Protected Areas; IV.L. Recreation
WRWAPPDoc71	6/6/2016	Heideman	Dana		General support for the proposed facility is not addressed in the proposed order
WRWAPPDoc110	6/6/2016	Heideman	Loren		General support for the proposed facility is not addressed in the proposed order

Attachment A: Draft Proposed Order Comment Index					
Document ID	Date Received	Last Name	First Name	Organization	Consideration in Proposed Order
WRWAPPD0c113	6/6/2016	Hill	Tana		General support for the proposed facility is not addressed in the proposed order
WRWAPPD0c113	6/6/2016	Hill	Stephen L.		General support for the proposed facility is not addressed in the proposed order
WRWAPPD0c96	6/6/2016	Horning	Don		General support for the proposed facility is not addressed in the proposed order
WRWAPPD0c104	6/6/2016	Ingram	Jack		General support for the proposed facility is not addressed in the proposed order
WRWAPPD0c114	6/6/2016	Light	Tommy Jr.		General support for the proposed facility is not addressed in the proposed order
WRWAPPD0c115	6/6/2016	Lindsay	Todd		II.C. Council Review Process; III.A. Location and Site Boundary; III.B. The Facility; IV.A. General Standard of Review; IV.B. Organizational Expertise; IV.D. Soil Protection; IV.E. Land Use; IV.F. Protected Areas; IV.P. Cumulative Effects Standard for Wind Energy Facilities; IV.Q. Siting Standards for Transmission Lines; IV.R. Noise Control Regulations
WRWAPPD0c91	6/6/2016	Little	Chuck		General support for the proposed facility is not addressed in the proposed order
WRWAPPD0c118	6/6/2016	Mabbott	Tamra	Umatilla Board of County Commissioners	IV.E. Land Use
WRWAPPD0c105	6/6/2016	Martinez	Jacob		General support for the proposed facility is not addressed in the proposed order
WRWAPPD0c116	6/6/2016	McKenzie	Tammy		General support for the proposed facility is not addressed in the proposed order
WRWAPPD0c117	6/6/2016	McLane	Carla	Morrow County Court	General support for the proposed facility is not addressed in the proposed order
WRWAPPD0c77	5/23/2016	Meenaghan	Kevin	NAS Whidbey Island USA (Bombing Range)	IV.F. Protected Areas
WRWAPPD0c92	6/6/2016	Miller	Corey		General support for the proposed facility is not addressed in the proposed order
WRWAPPD0c85	6/6/2016	Petersen	David	Tonkon Torp LLP	General support for the proposed facility is not addressed in the proposed order
WRWAPPD0c107	6/6/2016	Rauch	Kathy		General support for the proposed facility is not addressed in the proposed order
WRWAPPD0c74	5/19/2016	Reid	Jason		General support for the proposed facility is not addressed in the proposed order
WRWAPPD0c97	6/6/2016	Richards	David		IV.E. Land Use; IV.Q. Siting Standards for Transmission Lines
WRWAPPD0c106	6/6/2016	Schaltz	John		General support for the proposed facility is not addressed in the proposed order
WRWAPPD0c67 WRWAPPD0c86	5/18/16; 6/3/16	Seitz	Wayne		II.C. Council Review Process; IV.E. Land Use; IV.R. Noise Control Regulations

Attachment A: Draft Proposed Order Comment Index					
Document ID	Date Received	Last Name	First Name	Organization	Consideration in Proposed Order
WRWAPPDoc98	6/6/2016	Taylor	Donald		General support for the proposed facility is not addressed in the proposed order
WRWAPPDoc99	6/6/2016	Williamson	Gene		General support for the proposed facility is not addressed in the proposed order
WRWAPPDoc87 WRWAPPDoc88 WRWA	6/6/2016	Wolff	Thomas	Columbia Basin Electric Cooperative	General support for the proposed facility is not addressed in the proposed order

Attachment B: Draft Habitat Mitigation Plan

Wheatridge Wind Energy Project

Habitat Mitigation Plan (Draft Concepts)

Prepared for:

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Prepared by:

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April 2015

I. Introduction

This document has been prepared for the Wheatridge Wind Energy Project (Project) Site Certificate Application (SCA) submitted to the Oregon Department of Energy (ODOE). It provides primary concepts for meeting Project development habitat mitigation needs and will be finalized into a formal Habitat Mitigation Plan (HMP). The proposed concepts were discussed with personnel from the Oregon Department of Fish and Wildlife (ODFW) on August 20, 2012 and on July 11, 2014.

The Wheatridge Wind Energy Project is located in Morrow and Umatilla Counties, Oregon. As part of the SCA (Exhibits P and Q), Northwest Wildlife Consultants, Inc. (NWC) completed habitat mapping and quality assessment of the Project area, and conducted site-specific biological studies that included rare plant surveys, avian use surveys, special status vertebrate wildlife species surveys, golden eagle and other raptor nest surveys, an inventory of bat species, and big game observations, as well as reviews for potential occurrence of or records of special status species. No wetlands, perennial streams or other aquatic habitats are addressed in this document because at the time of preparation (August 2014) no facilities are planned for these habitat types. Project impact estimates were provided by Wheatridge Wind Energy, LLC and their SCA contractor, Tetra Tech. Based on a combination of the results of the multi-year biological studies, experience with such mitigation, and knowledge of the wildlife and habitats impacted by wind and natural gas energy development in the Columbia Plateau since 1992, NWC offers the concepts in this document as recommendations for inclusion in the Project's final Habitat Mitigation Plan. Details on habitat types, subtypes, and Categories 1–6 can be found in the SCA, Exhibit P and in the Wheatridge ecological investigations report (Gerhardt and Anderson, 2014). The Applicant is reducing and eliminating the impact of the proposed Project over time by preserving and maintaining in-kind habitat in the Columbia Basin ecoregion to achieve a net benefit to Category 2 habitat and no net loss of Category 3, and 4, Details are discussed in this document.

II. Description of Project Impacts Addressed by the Plan

As presently designed (as of November 13, 2014), the Wheatridge Wind Energy Facility (Project) will be constructed within a landscape of approximately 13,100 acres of privately-owned land and will have a generating capacity of up to 500 megawatts and use an array of up to 292 wind turbines. The Project consists of two groups of wind turbines, 'Wheatridge West' and 'Wheatridge East,' and a connecting 230-kilovolt overhead transmission line (the 'Intraconnection Line'); each of these involve other supporting facilities such as roads and underground electrical lines.

Oregon Administrative Rule (OAR) 635-415-0025, the Wildlife Habitat Mitigation Policy, defines habitats based on type, quality, availability, and usefulness/importance to wildlife, and establishes mitigation goals and implementation standards for each. As further described in the SCA Exhibit P, Category 1 habitat, which is defined as irreplaceable, essential, and limited, includes habitat within 785 feet of documented Washington ground squirrels. The Project was designed and micro-sited to avoid all mapped Category 1 upland

habitat, and based on that information, no Project facilities or activities will impact such habitat.

Category 2 habitat is defined by OAR 635-415-0025 as essential and limited, and NWC identified small amounts of such habitat within the Project area based on these criteria and the value of such lands to wildlife generally and, in particular, to species of special state or federal status. The OAR specifies net benefit be achieved for Category 2 impacts and defines this as “an increase in overall in-proximity habitat quality or quantity after a development action and any subsequent mitigation measures have been completed and monitored.”

In 2013, ODFW began to consider all land (except developed and agriculture such as cropland) that lies within designated big game winter range as Category 2. This leads to the inclusion of additional Category 2 habitat in the Project impacts. For habitat impacts (permanent and temporary) associated with this (big game) Category 2, the mitigation described in this plan will be coupled with minimization best practices during construction to attain the goal of no net loss and a net benefit.

Most of the Project's footprint (area to be covered by permanent facilities) will occupy dryland agriculture, which is Category 6 habitat. The rest of the footprint will occupy Category 2, Category 3 (Revegetated Grassland, Native Perennial Grassland, Basin Big Sagebrush Shrub-steppe, or Rabbitbrush/Buckwheat Shrub-steppe) or Category 4 (Exotic Annual Grassland) habitats.

In addition to the permanent impacts mentioned above, construction of the Project will entail temporary impacts to the same types and categories of habitat. Temporary impacts are summarized as follows: no Category 1 impacts, a small amount of impact to Category 2 habitat (based on ground assessment and definitions in OAR 635-415-0025), additional impacts to Category 2 (based on location within big game winter range), some Category 3 and Category 4 impacts, and mostly Category 6 impacts. Grassland habitats (Category 3 and 4) are expected to require three to five years after disturbance from construction activities to recover to a mature state of grassland cover. Native forbs in perennial grasslands (as well as in shrub-steppe) may not recover to pre-construction diversity or will take longer to recolonize the restored areas. Shrub-steppe habitats (Category 2 and 3) may take much longer to achieve the shrub species maturity and height that existed prior to construction (ten to fifty years).

III. Calculation of the Size of the Mitigation Area

The Habitat Mitigation Area (HMA) must be large enough and have the characteristics to meet the standards set in OAR 635-415-0025. These standards include “no net loss” and a “net benefit” in habitat quality and quantity for Category 2 habitats, and “no net loss” of habitat for Categories 3 and 4. Mitigation standards for Category 6 involve minimizing direct habitat loss and avoiding impacts to off-site habitat.

For the purposes of this discussion, the acreages of impact are the current estimate of the maximum affected area (the permanent and temporary impacts). The actual areas of

disturbance will be determined based on the final design layout of the Project. It is anticipated that ODOE and ODFW will require that they be provided with the final design layout and the associated impact acreages prior to the beginning of Project construction.

The following tables delineate current maximum habitat impact acreage estimates of each of the three components of the Wheatridge Wind Energy Project.

Wheatridge West

<u>Habitat Category</u>	<u>Permanent Impacts</u>	<u>Temporary Impacts</u>
Category 2	3.6	19.7
Category 2 (big game)	21.3	135.8
Category 3	13.5	91.5
Category 4	1.8	11.6
Category 6*	88.6	534.3
Total Impacted Acres	128.9	792.9

* no mitigation required

Wheatridge East

<u>Habitat Category</u>	<u>Permanent Impacts</u>	<u>Temporary Impacts</u>
Category 2	5.6	33.6
Category 2 (big game)	0.4	3.1
Category 3	3.8	26.4
Category 4	1.8	11.7
Category 6*	29.9	185.7
Total Impacted Acres	41.5	260.5

* no mitigation required

Transmission Intraconnection Line

<u>Habitat Category</u>	<u>Permanent Impacts</u>	<u>Temporary Impacts</u>
Category 2	0.0	4.1
Category 2 (big game)	0.4	62.6
Category 3	0.1	16.8
Category 4	0.0	2.5
Category 6*	0.4	58.0
Total Impacted Acres	0.9	144.0

* no mitigation required

Based on these impact estimates, calculation of the mitigation area required (under the maximum layout) are as follows:

Wheatridge West

Category 2

Footprint: 3.6 acres (2:1 ratio)

Temporary impacts: 19.7 acres (>1:1 ratio)

Mitigation area required: $(3.6 \times 2) + (>19.7) = >26.9$

Category 2 (Big Game)

Footprint: 21.3 acres (>1:1 ratio)

Temporary impacts: * revegetated grassland 91.5 (1:1); exotic annual grassland 12.5 (1:1); native perennial grassland 31.8 (1:1)

Mitigation area required: $> 21.3 + (91.5 + 12.5 + 31.8) = >157.2$ acres

Category 3

Footprint: 13.5 acres (1:1 ratio)

Temporary impacts: revegetated grassland 60.7 (0:1); native perennial grassland 28.7 (0.5:1 ratio); shrub-steppe 2.1 (0.5:1)

Mitigation area required: $13.5 \text{ acres} + (0.0 + 14.4 + 1.0) = 28.9$ acres

Category 4

Footprint: 1.8 acres (1:1 ratio)

Mitigation area required: 1.8 acres

Total mitigation area required (Wheatridge West, to nearest whole acre): >215

* For temporary habitat loss within designated deer winter range, mitigation will be coupled with impact minimization and revegetation efforts to attain the goal of no net loss and a net benefit.

Wheatridge East

Category 2

Footprint: 5.6 acres (2:1 ratio)

Temporary impacts: 33.6 acres (>1:1 ratio)

Mitigation area required: $(5.6 \times 2) + (>33.6 \times 1) = >44.8$ acres

Category 2 (Big Game)

Footprint: 0.4 acres (>1:1 ratio)

Temporary impacts: exotic annual grassland 0.8 (1:1); native perennial grassland 2.3 (1:1)

Mitigation area required: $>(0.4 + (0.8 + 2.3)) = >3.5$ acres

Category 3

Footprint: 3.8 acres (1:1 ratio)

Temporary impacts: revegetated grassland 0.0 (0:1); native perennial grassland and shrub-steppe 26.4 (0.5:1 ratio)

Mitigation area required: $3.8 \text{ acres} + (0.0 + 13.2) = 17.0$ acres

Category 4

Footprint: 1.8 acres (1:1 ratio)

Mitigation area required: 1.8 acres

Total mitigation area required (Wheatridge East, to nearest whole acre): >67

Transmission Intraconnection Line

Category 2

Footprint: 0.0 acres (2:1 ratio)

Temporary impacts: 4.1 acres (>1:1 ratio)

Mitigation area required: $(0.0 \times 2) + (>4.1 \times 1) = >4.1$ acres

Category 2 (Big Game)

Footprint: 0.4 acres (>1:1 ratio)

Temporary impacts: * revegetated grassland 11.5 (1:1); exotic annual grassland 1.4 (1:1); native perennial grassland 35.5 (1:1); shrub-steppe 14.2 (1:1)

Mitigation area required: $> 0.4 + (11.5 + 1.4 + 35.5 + 14.2) = > 63.0$ acres

Category 3

Footprint: 0.1 acres (1:1 ratio)

Temporary impacts: revegetated grassland 7.2 (0:1); native perennial grassland and shrub-steppe 9.6 (0.5:1 ratio)

Mitigation area required: $0.1 \text{ acres} + (0.0 + 4.8) = 4.9$ acres

Category 4

Footprint: 0.0 acres (1:1 ratio)

Mitigation area required: 0.0 acres

Total mitigation area required (Transmission Intraconnection, to nearest whole acre): >72

* For temporary habitat loss within designated deer winter range, mitigation will be coupled with impact minimization and revegetation efforts to attain the goal of no net loss and a net benefit.

Total mitigation area required (all three Project components): >354 acres

IV. Description of the Habitat Mitigation Area (HMA)

According to ODFW standards, areas appropriate for mitigation of Category 2 and Category 3 habitat impacts must be "in proximity" to the Project and have potential for habitat enhancement. The applicant has identified more than 360 acres of suitable habitat for consideration by ODFW and ODOE (map submitted separately). These include Native Perennial Grassland, Revegetated Grassland, Basin Big Sagebrush Shrub-steppe, Rabbitbrush/Buckwheat Shrub-steppe, and Exotic Annual Grassland habitats of varying quality. There are opportunities for implementing habitat enhancement actions, as needed for the final habitat mitigation compliance. NWC has confirmed that the parcels under current consideration have adequate potential for mitigating the habitat loss expected to occur and for providing benefit for the wildlife species that use the habitats impacted by habitat loss associated with the Project, including big game. All of the habitat proposed for use as mitigation lies within designated deer winter range. The referenced acreages for mitigation will be discussed with ODFW.

V. Habitat Enhancement Actions

Habitat designated for mitigation will be conserved and protected from alteration for the life of the Project. Besides such legal protection to insure no development, actions that are proposed for enhancement of the mitigation area include

- Livestock grazing will be restricted from the HMA to ensure that habitat is maximally useful to wildlife;
- The holder of the Site Certificate will work with the landowner to control or eradicate noxious weeds.
- Revegetation with native plants—sagebrush and bunch grasses—will occur in proportion to the acres of sagebrush and native grassland habitats lost through Project construction.
- A plan for fire response and control will be in place and applied to the HMA.
- Where old barbed wire fence on the HMA presents potential problems for wildlife, the holder of the Site Certificate will work with the landowner to remove such fencing.
- Habitat protection will involve restricting any uses of the mitigation area that would be inconsistent with the goals of no net loss of habitats in Categories 2, 3, and 4 and a net benefit to Category 2 habitat quantity or quality.

Enhancement activities are expected to apply specifically to the approximately 80 acres of the HMA required as compensation for those habitat impacts outside of deer winter range. The other 226 acres are deemed sufficient compensation for the big game Category 2 habitat impacts. The habitat within the HMA is currently of superior quality to most of the habitat to be impacted within deer winter range. Moreover, the majority of those impacted acres (those with temporary impacts) will be restored within three to five years to better condition than they were prior to construction, as required as part of the Revegetation Plan.

VI. Monitoring

1. Procedures

The holder of the Site Certificate will hire a qualified, independent investigator (wildlife biologist, botanist, or revegetation specialist) to conduct a comprehensive program of monitoring the HMA and the success of its protection and (within applicable acres) enhancements. Annual monitoring will include assessments of:

- Amount and quality of vegetation
- Success of weed control measures
- Degree of recovery of native grasses and forbs
- Success of revegetation measures (where applicable)
- Special status species present

Methods and results of all monitoring will be reported to ODOE and ODFW on an annual basis, along with a report of the mitigation/enhancement measures undertaken that year.

2. Success Criteria

The goal of the habitat mitigation described herein is to protect and enhance a sufficient quantity of habitat to meet ODFW standards of no net loss of habitat Category 3 and Category 4 and a net gain in habitat quantity and quality of Category 2. Habitat protection alone—apart from enhancement—will not be deemed to meet the net-benefit criterion for Category 2 habitat. The minimum amount of habitat protection and enhancement required will be calculated as in Section 3 above using the impact acreages associated with the final Project design. If sufficient high-quality habitat is not available for protection, habitat mitigation goals can be achieved by enhancing the required amount of habitat to bring it up to the higher category. Criteria for assessing such a category improvement will include density and quality of native vegetation of the appropriate types (desirable forbs and bunchgrasses, e.g.) success of weed control, and increased use of the area by native bird or mammal species with special status. If the holder of the Site Certificate desires to base habitat improvement on increased avian or other wildlife use, then baseline studies will need to be conducted on the habitat mitigation area in the spring of Year 1 or Year 2.

Habitat protection and enhancement must endure for the life of the Project. That is, even after habitat protection and enhancement has been achieved, periodic monitoring must take place to assess whether protection and enhancement persists at levels commensurate with mitigation goals. Should habitat quality fall below that prescribed by the Habitat Management Plan, the holder of the Site Certificate will, in consultation with ODFW and ODOE, propose remedial actions for compensating for such a failure to meet mitigation goals.

VII. Amendment of the Plan

This Habitat Mitigation Plan may be amended by agreement of the holder of the Site Certificate and the Oregon Energy Facility Siting Council. Amendments to this Plan will not require an amendment of the Site Certificate.

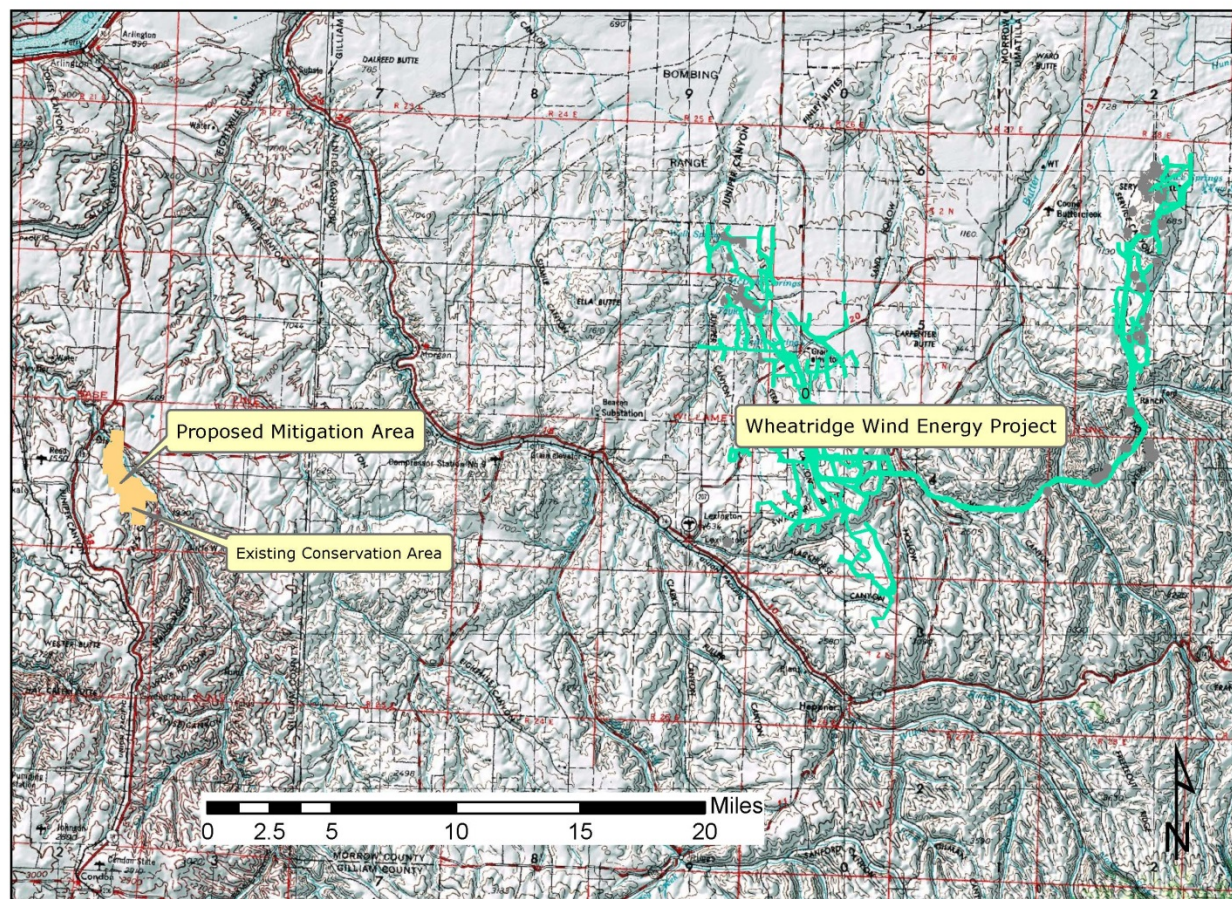


Figure 1. Overview Map: Habitat Mitigation Area for the Wheatridge Wind Energy Project.

Attachment C: Draft Revegetation Plan

Wheatridge Wind Energy Facility

Revegetation Plan (Draft Concepts)

Prepared for:

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Prepared by:

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April 2015

I. Introduction

This document has been prepared for the Wheatridge Wind Energy Facility (Wheatridge, WWEF, or Project) Site Certificate Application (SCA) submitted to the Oregon Department of Energy (ODOE). It provides primary concepts for meeting the needs for revegetation following Project construction and will be finalized (by ODOE) into a formal Revegetation Plan, authored by the ODOE before issuance of the Site Certificate. The concepts provided here are consistent with approved plans in place for other Oregon wind projects in similar habitats, in particular those that are permitted through the State process and the Oregon Energy Facility Siting Council (OEFSC or the Council). The Leaning Juniper II, Stateline, and Montague Revegetation Plans, and available revegetation monitoring reports for wind and natural gas energy projects served as models for the Wheatridge concepts.

The WWEF Revegetation Plan, which has been developed in consultation with personnel from the Oregon Department of Fish and Wildlife, delineates practices and standards for restoring to preconstruction conditions or better those areas temporarily disturbed during construction of the Project; it does not apply to areas permanently occupied by Project facilities. Such restoration is a requirement of the Site Certificate.

The amounts and types of habitats expected to be disturbed during Project construction are described in Exhibit P of the Site Certificate Application; they are also described in Attachment P-3, the Draft Habitat Mitigation Plan. These will include agricultural and other developed lands (collectively referred to as cropland) and grassland, shrub-steppe, and other habitats (collectively referred to as wildlife habitat). This plan addresses both restoration of croplands and restoration of wildlife habitat. For wildlife habitat in particular, it describes planting methods, monitoring requirements, success criteria, and remedial actions (in case success criteria are not met).

Throughout Project construction and revegetation activities, the Developer will take appropriate actions to prevent the spread of noxious weeds (as identified in Morrow County Ordinance No. MC-C-3-90 and No. MC-C-2-99 Appendices A and B). Where appropriate, and pursuant to consultation with the county weed control managers, monitoring of the establishment of noxious weeds and of the effectiveness of weed control or eradication may be performed in concert with the revegetation monitoring described in this document.

II. Project Site Description

The Project is located primarily in Morrow County, with a small portion in Umatilla County, Oregon. It lies within the Columbia Plateau Ecoregion, entirely on public land and primarily in agricultural land used for growing dryland wheat. Native vegetation has been modified by historical and current livestock grazing, by changes in fire regimes, and by the presence of exotic grasses and other vegetation.

Primary soil types include Mikkalo, Willis, Ritzville, and Warden, and land cover types are Developed (Dryland Wheat, Revegetated Grassland, and Other Developed), Grassland (Exotic Annual and Native Perennial), and Shrub-steppe (Basin Big Sagebrush and Snakeweed/Rabbitbrush).

III. Revegetation Methods

Revegetation will begin as soon as feasible after completion of construction, and seeding and planting will be done in a timely manner and in the appropriate season. Agricultural land restoration methods will likely be designed in consultation with the landowner. Soil preparation will involve standard, commonly-used methods, and will take into account all relevant site-specific factors, including slope, size of area, and erosion potential. Topsoil will be restored to the preconstruction condition or better. Mulching and other erosion control measures will be used throughout construction and during revegetation efforts. Preconstruction land use, soil, and vegetation type will dictate the seed mix used for each area to be restored; the wildlife habitat seed mixes used will be finalized in consultation with ODFW and will comply with the Oregon Seed Law.

1. Seed Planting Methods

Methods and timing of planting will be appropriate to the seed mix, weather conditions, and site conditions (including area size, slope, and erosion potential). Preparation of disturbed ground may include replacing lost topsoil and/or chemical or mechanical weed control. Two common application methods for non-cropland are described below.

a) Broadcasting

In this method, the seed mix will be broadcast at specified application rates. Broadcasting should not be utilized when winds exceed five miles per hour. If feasible, half of the seed mix will be broadcast in one direction, with the other half broadcast perpendicular to the first half. A tracking dye may be added to facilitate uniform application. Certified weed-free straw will be applied at a rate of two tons per acre immediately after seeding; straw may either be crimped into the ground or applied with a tackifier.

b) Drilling

In this method, seed will be planted using an agricultural or range seed drill according to application rates recommended by the seed supplier.

IV. Restoration of Cropland

It is expected that croplands will be reseeded with the appropriate crop or maintained as fallow in consultation with the landowner or farm operator. The holder of the Site Certificate will also consult with the landowner or farm operator to determine seed mix and application methods and rates for seed and fertilizer. Success of cropland revegetation will have been achieved when production of the revegetated area is comparable to that of adjacent non-disturbed croplands. Success determination will involve consultation with the landowner or farm operator, and the holder of the Site Certificate will report to ODOE on the success of cropland restoration efforts.

V. Restoration of Wildlife Habitat

All disturbed grassland, shrub-steppe, and other wildlife habitat will be reseeded with a mix of native or native-like grasses, forbs, and shrubs characteristic of the area prior to construction disturbance. Seed mix and application rates will be determined in consultation

with the landowner and ODFW, and will take into consideration soil types, erosion potential, and growing conditions. The seed mix will be approved by ODOE, and seeds will be obtained from a reputable supplier in compliance with the Oregon Seed Law.

VI. Monitoring

1. Revegetation Record

Records will be kept of revegetation efforts, both for croplands and for wildlife habitat; records will include:

- Date construction was completed
- Description of the affected area
- Date revegetation was initiated
- Description of the revegetation effort

The holder of the Site Certificate will update these records periodically as revegetation work occurs, and will provide ODOE with copies of these records with submission of the annual report required by the Site Certificate.

2. Monitoring Procedures

Monitoring of the revegetation effort will be conducted by an independent botanist or revegetation specialist; this monitoring will be done during the first growing season after planting (Year 1), and again in Years 3 and 5. Nearby reference sites (approximating pre-construction conditions) will be selected as targets toward which revegetation will aim. Monitoring will not be required for areas that have been converted by the landowner to land uses that preclude meeting revegetation success criteria.

Weed Control

A qualified investigator will be employed to annually assess weed growth during the first five years of revegetation work and to make recommendations on weed control measures. Reports will be submitted to the holder of the Site Certificate, to ODOE, and to ODFW following each annual inspection. These reports will identify areas and describe extent of weed growth and describe the success of control measures. At the time of the year-5 report, the investigator will consult with ODOE, ODFW, and the holder of the Site Certificate to design an appropriate plan for subsequent weed control.

Wildlife Habitat Recovery

In the first growing season after planting of areas to be revegetated, a qualified independent investigator (botanist or revegetation specialist) will inspect each wildlife habitat revegetation area to assess the success of revegetation measures. These assessments will be repeated in Year 3 and Year 5. Annual reports will be submitted to the holder of the Site Certificate, to ODOE, and to ODFW. Assessments will address whether each wildlife habitat revegetation area is trending toward meeting the success criteria described below.

In consultation with ODFW, reference sites—areas of habitat and quality similar to those found prior to disturbance at the areas to be revegetated—will be established to represent target conditions for revegetation areas. During each assessment, revegetated areas will be compared to reference sites with regard to:

- Presence and density of weeds
- Degree of erosion
- Vegetative density
- Proportion of desirable vegetation
- Species diversity and structural stage of desirable vegetation

Reference sites will be chosen with consideration to land use patterns, soil types, terrain, and presence of noxious weeds. It is expected that a variety of reference sites will be required to represent the range of disturbed areas for which revegetation is required. New reference sites may be chosen if land use changes, wildfire, or other disturbance makes a chosen reference site no longer representative of target conditions.

Based on the Year 5 assessment, the holder of the Site Certificate will consult with ODOE and ODFW to design an action plan for subsequent years. The holder of the Site Certificate may propose remedial actions and/or additional monitoring for areas that have not met the success criteria. Alternatively, revegetation efforts may in some cases be deemed to have failed, and mitigation may be proposed in such cases to compensate for habitat loss.

3. Success Criteria

Each annual report will involve an assessment of the progress toward revegetation objectives of each area of wildlife habitat disturbed during Project construction. The overarching metric for success is when the habitat quality is equal to or better than the quality at the relevant reference site according to the conditions described above. Final determination of whether the holder of the Site Certificate has met the revegetation obligations will be made by ODOE.

4. Remedial Action

Remedial action options will be identified in cases where success criteria are not met, whether due to wildfire subsequent to Project construction or because of lower than expected rates of germination or survival. Remedial actions may include reseeding or other measures. The investigator will make recommendations for remedial actions after each monitoring visit, and the holder of the Site Certificate will take appropriate measures to meet the restoration objectives. The holder of the Site Certificate will annually report the investigator's recommendations for remedial actions and the measures taken. ODOE may require reseeding or other remedial actions in cases where revegetation objectives have not been met.

VII. Plan Amendment

It is expected that the completed Revegetation Plan will make provision for an amendment process that would depend upon the agreement of all concerned parties. In particular, this Plan may be amended—without requiring an amendment to the Site Certificate—by agreement between the Oregon Energy Facility Siting Council (OEFSC) and the holder of the Site Certificate.

Attachment D: Draft Wildlife Monitoring and Mitigation Plan

Wheatridge Wind Energy Project

**Proposed Concepts for
Wildlife Monitoring and Mitigation Plan**

Prepared for:

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Prepared by:

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December 14, 2014

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Introduction

This document has been prepared for the Wheatridge Wind Energy Facility (WWEF or Project) Site Certificate Application (SCA) submitted to the Oregon Department of Energy (ODOE). It provides primary concepts for meeting the operations phase wildlife monitoring and mitigation needs and will be finalized (by ODOE) into a formal Wildlife Monitoring and Mitigation Plan (WMMP), taking into account the objectives for such monitoring of the Oregon Department of Fish and Wildlife (ODFW) and the United States Fish and Wildlife Service (USFWS).

The concepts provided herein are consistent with approved plans in place for other Oregon wind projects, in particular those that are permitted through the State process and the Energy Facility Siting Council. For most such plans in the Oregon Columbia Plateau, the objective has been to provide information useful for determining the impacts of construction and operation of wind energy facilities on wildlife in general—and on birds and bats in particular. As a result of such studies, a wealth of information is available, and the species and relative proportions of birds and bats impacted by wind development in the Oregon Columbia Plateau is now well established.

For this reason, and because multiple-species monitoring has often led to a suboptimal understanding of impacts to particular species of special conservation concern, the USFWS has established guidelines (USFWS, 2012) to facilitate the identifying and addressing such species and the potential impacts to them. For the Wheatridge Wind Energy Facility, pre-construction information reviews and field investigations (Gerhardt et al., 2014) followed those guidelines, as did subsequent siting and micro-siting of facilities (Exhibits P and Q of the Wheatridge Site Certificate Application). The conclusion of this process led to discussions with USFWS centering on the potential risk of the Project to golden eagle, discussions that likely will lead to an Eagle Conservation Plan and an Eagle Take Permit. In that case, the methods described in this Plan (especially fatality monitoring and mitigation) may—prior to the beginning of construction of the Project—be tailored specifically to golden eagles and other large raptors.

Wheatridge Wind Energy, LLC (Wheatridge) proposes to construct the Wheatridge Wind Energy Facility on portions of approximately 13,100 acres of privately-owned land in Morrow and Umatilla Counties, Oregon. The Project will have a generating capacity of up to 500 megawatts (MW), using an array of up to 292 wind turbines. The Project consists of two groups of wind turbines, called 'Wheatridge West' and 'Wheatridge East,' and an intraconnection corridor connecting the Wheatridge West and Wheatridge East wind turbine groups with one or two 230 kilovolt (kV) overhead transmission lines. A detailed Project description can be found in Exhibit B of the Wheatridge Site Certificate Application, and detailed maps of the Project site boundary and Project facilities can be found in Exhibit C.

This plan describes wildlife monitoring that the certificate holder shall conduct during operation of the Project. Monitoring objectives of the formal study are to determine whether the facility causes significant fatalities of birds and bats and to determine whether the facility results in a loss of habitat quality. Objectives of continued recording, handling and

reporting of incidentally discovered injured or dead wildlife are to meet the standards specified in any other requirement (federal, state, county) for understanding and documenting species found over time.

For the formal study, the certificate holder shall use experienced and properly trained personnel (the "investigators") to conduct the monitoring required under this plan. The professional qualifications of the investigators are subject to approval by the Oregon Department of Energy. For all components of this plan except the life-of-project Wildlife Reporting and Handling System, the certificate holder shall hire independent third party investigators (not employees of the certificate holder) to perform monitoring tasks.

The *Wildlife Monitoring and Mitigation Plan* for the WWEF has the following components:

- 1) Fatality monitoring program including:
 - a) Removal trials
 - b) Searcher efficiency trials
 - c) Fatality search protocol
 - d) Statistical analysis
- 2) Raptor nesting surveys
- 3) Wildlife Reporting and Handling System

Component #1 is of shorter duration whereas #2 is periodic for a longer period and #3 if for the life of the project. Based on the results of the monitoring program, mitigation of significant impacts may be required. The selection of the mitigation actions should allow for flexibility in creating appropriate responses to monitoring results that cannot be known in advance. If the Department determines that mitigation is needed, the certificate holder shall propose appropriate mitigation actions to ODOE and shall carry out mitigation actions approved by ODOE, subject to review by the Oregon Energy Facility Council (Council).

1. Fatality Monitoring

(a) Definitions and Methods

Seasons

This plan uses the following dates for defining seasons:

Season	Dates
Spring Migration	March 16 to May 15
Summer/Breeding	May 16 to August 15
Fall Migration	August 16 to October 31
Winter	November 1 to March 15

Search Plots

The investigators shall conduct fatality monitoring within search plots. The certificate holder, in consultation with the Oregon Department of Fish and Wildlife, shall select search plots based on a systematic sampling design that ensures that the selected search plots are representative of the habitat conditions in different parts of the site. Each search plot will

contain one turbine. Search plots will be square or circular. Circular search plots will be centered on the turbine location; radius will be determined with regard to maximum blade tip height and species of concern. Square search plots will be of sufficient size to contain a circular search plot as described above. The certificate holder shall provide maps of the search plots to ODOE before beginning fatality monitoring at the facility. The certificate holder shall use the same search plots for each search conducted during a monitoring year.

Scheduling

Fatality monitoring will begin one month after commencement of commercial operation of the facility. Subsequent monitoring years will follow the same schedule (beginning in the same calendar month in the subsequent monitoring year).

In each monitoring year, the investigators shall conduct fatality monitoring searches at the rates of frequency shown below. Over the course of one monitoring year, the investigators will conduct 16 searches, as follows:

Season	Frequency
Spring Migration	2 searches per month (4 searches)
Summer/Breeding	1 search per month (3 searches)
Fall Migration	2 searches per month (5 searches)
Winter	1 search per month (4 searches)

Sample Size

The sample size for fatality monitoring is the number of turbines searched per monitoring year. The investigators shall conduct fatality monitoring during each monitoring year in search plots at one-third of the turbines that are built or 50 turbines, whichever is greater. If fewer than 50 turbines are built, the certificate holder shall search all turbines.

Duration of Fatality Monitoring

The investigators shall perform one complete monitoring cycle during the first full year of facility operation (Year 1). At the end of the first year of monitoring, the certificate holder will report the results for joint evaluation by ODOE, the certificate holder, and ODFW. In the evaluation, the certificate holder shall compare the results for the WWEF with the thresholds of concern described in Section 1(g) of this plan and with comparable data from other wind power facilities in the Columbia Basin, as available. If the fatality rates for the first year of monitoring at the WWEF do not exceed any of the thresholds of concern and are within the range of the fatality rates found at other wind power facilities in the region, then the investigators will perform a second year of monitoring in Year 5 of operations.

If fatality rates for the first year of monitoring at the WWEF materially exceed any of the thresholds of concern or the range of fatality rates found at other wind power facilities in the region, the certificate holder shall propose additional mitigation for ODOE and ODFW review within 6 months after reporting the fatality rates to the ODOE. Alternatively, the certificate holder may opt to conduct a second year of fatality monitoring immediately if the certificate

holder believes that the results of Year 1 monitoring were anomalous. If the certificate holder takes this option, the investigators still must perform the monitoring in Year 5 of operations as described above.

(b) Removal Trials

The objective of the removal trials is to estimate the length of time avian and bat carcasses remain in the search area. Estimates of carcass removal rates will be used to adjust carcass counts for removal bias. "Carcass removal" is the disappearance of a carcass from the search area due to predation, scavenging, or other means, such as farming activity.

The investigators shall conduct carcass removal trials within each of the seasons defined above during the first year of fatality monitoring. For each trial, the investigators shall use 10 to 15 carcasses of small- and large-bodied species. Trial carcasses shall be distributed within habitat categories and subtypes in proportion to their amounts within search plots.

After the first year of fatality monitoring, the investigators may reduce the number of removal trials and the number of removal trial carcasses during any subsequent year of fatality monitoring, subject to the approval of the Department. The investigators must show that the reduction is justified based on a comparison of the first year removal data with published removal data from nearby wind energy facilities.

The investigators shall use game birds or other legal sources of avian species as test carcasses for the removal trials, and the investigators may use carcasses found in fatality monitoring searches. The investigators shall select species with the same coloration and size attributes as species found within the site boundary. If suitable trial carcasses are available, trials during the fall season will include several small brown birds to simulate bat carcasses. Legally obtained bat carcasses will be used if available.

Trial carcasses will be marked discreetly for recognition by searchers and other personnel. Carcasses will be placed in a variety of postures to simulate a range of conditions. For example, birds will be: (1) placed in an exposed posture (e.g., thrown over the shoulder), (2) hidden to simulate a crippled bird (e.g., placed beneath a shrub or tuft of grass) or (3) partially hidden. The trial carcasses will be placed randomly within the carcass removal trial plots. Trial carcasses will be left in place until the end of the carcass removal trial.

An approximate schedule for assessing removal status is once daily for the first 4 days, and on days 7, 10, 14, 21, 28 and 35. This schedule may be adjusted depending on actual carcass removal rates, weather conditions and coordination with the other survey work. The condition of scavenged carcasses will be documented during each assessment, and at the end of the trial all traces of the carcasses will be removed from the site. Scavenger or other activity could result in complete removal of all traces of a carcass in a location or distribution of feathers and carcass parts to several locations. This distribution will not constitute removal if evidence of the carcass remains within an area similar in size to a search plot and if the evidence would be discernable to a searcher during a normal survey.

Before beginning removal trials for any subsequent year of fatality monitoring, the certificate holder shall report the results of the first year removal trials to ODOE and ODFW. In the report, the certificate holder shall analyze whether four removal trials per year, as

described above, provide sufficient data to accurately estimate adjustment factors for carcass removal. The number of removal trials may be adjusted up or down, subject to the approval of ODOE.

(c) Searcher Efficiency Trials

The objective of searcher efficiency trials is to estimate the percentage of bird and bat fatalities that searchers are able to find. The investigators shall conduct searcher efficiency trials on the fatality monitoring search plots in both grassland/shrub-steppe and cultivated agriculture habitat types. A pooled estimate of searcher efficiency may be used—if sample sizes are too small for some habitat types—to adjust carcass counts for detection bias.

The investigators shall conduct searcher efficiency trials within each of the seasons defined above during the years in which the fatality monitoring occurs. Each trial will involve approximately 4 to 15 carcasses. The searchers will not be notified of carcass placement or test dates. The investigators shall vary the number of trials per season and the number of carcasses per trial so that the searchers will not know the total number of trial carcasses being used in any trial. In total, approximately 80 carcasses will be used per year, or approximately 15 to 25 per season.

For each trial, the investigators shall use small- and large-bodied species. The investigators shall use game birds or other legal sources of avian species as test carcasses for the efficiency trials, and the investigators may use carcasses found in fatality monitoring searches. The investigators shall select species with the same coloration and size attributes as species found within the site boundary. If suitable test carcasses are available, trials during the fall season will include several small brown birds to simulate bat carcasses. Legally obtained bat carcasses will be used if available. The investigators shall mark the test carcasses to differentiate them from other carcasses that might be found within the search plot and shall use methods similar to those used to mark removal test carcasses as long as the procedure is sufficiently discreet and does not increase carcass visibility.

The certificate holder shall distribute trial carcasses in varied habitat in rough proportion to the habitat types within the facility site. On the day of a standardized fatality monitoring search (described below) but before the beginning of the search, investigators will place efficiency trial carcasses randomly within search plots (one to three trial carcasses per search plot) within areas to be searched. If scavengers appear attracted by placement of carcasses, the carcasses will be distributed before dawn.

Efficiency trials will be spread over the entire season to incorporate effects of varying weather and vegetation growth. Carcasses will be placed in a variety of postures to simulate a range of conditions. For example, birds will be: (1) placed in an exposed posture (thrown over the shoulder), (2) hidden to simulate a crippled bird or (3) partially hidden.

The number and location of the efficiency trial carcasses found during the carcass search will be recorded. The number of efficiency trial carcasses available for detection during each trial will be determined immediately after the trial by the person responsible for distributing the carcasses. Following plot searches, all traces of test carcasses will be removed from the site.

If new searchers are brought into the search team, additional searcher efficiency trials will be conducted to ensure that detection rates incorporate searcher differences. The certificate holder shall include a discussion of any changes in search personnel and any additional detection trials in the reporting required under Section 4 of this plan.

Before beginning searcher efficiency trials for any subsequent year of fatality monitoring, the certificate holder shall report the results of the first year efficiency trials to ODOE and ODFW. In the report, the certificate holder shall analyze whether the efficiency trials as described above provide sufficient data to accurately estimate adjustment factors for searcher efficiency. The number of searcher efficiency trials for any subsequent year of fatality monitoring may be adjusted up or down, subject to the approval of ODOE.

(d) Fatality Monitoring Search Protocol

The objective fatality monitoring is to estimate the number of bird and bat fatalities that are attributable to facility operation as an indicator of the impact of the facility on habitat quality. The goal of bird and bat fatality monitoring is to estimate fatality rates and associated variances. The investigators shall perform fatality monitoring using standardized carcass searches according to the schedule described above.

Personnel trained in proper search techniques ("the searchers") will conduct the carcass searches by walking concentric or parallel transects (with transect width determined by the species of concern) within search plots. Search area and speed may be adjusted by habitat type after evaluation of the first searcher efficiency trial.

Searchers shall flag all avian or bat carcasses discovered. Carcasses are defined as a complete carcass or body part, 10 or more feathers or three or more primary feathers in one location. When parts of carcasses and feathers from the same species are found within a search plot, searchers shall make note of the relative positions and assess whether or not these are from the same fatality.

All carcasses (avian and bat) found during the standardized carcass searches will be photographed, recorded and labeled with a unique number. Searchers shall make note of the nearest two or three structures (turbine, power pole, fence, building or overhead line) and the approximate distance from the carcass to these structures. The species and age of the carcass will be determined when possible. Searchers shall note the extent to which the carcass is intact and estimate time since death. Searchers shall describe all evidence that might assist in determination of cause of death, such as evidence of electrocution, vehicular strike, wire strike, predation or disease. When assessment of the carcass is complete, all traces of it will be removed from the site.

Each carcass will be bagged and frozen for future reference and possible necropsy or (if the carcass is fresh and whole) for use in trials. A copy of the data sheet for each carcass will be kept with the carcass at all times. For each carcass found, searchers will record species, sex and age when possible, date and time collected, location, condition (e.g., intact, scavenged, feather spot) and any comments that may indicate cause of death. Searchers will photograph each carcass as found and will map the find on a detailed map of the search area showing the location of the wind turbines and associated facilities. The certificate

holder shall coordinate collection of state endangered, threatened, sensitive or other state protected species with ODFW. The certificate holder shall coordinate collection of federally listed endangered or threatened species and Migratory Bird Treaty Act protected avian species with the U.S. Fish and Wildlife Service. The certificate holder shall obtain appropriate collection permits from ODFW and USFWS.

The investigators shall calculate fatality rates using the statistical methods described in Section (f), except that the investigators may use different notation or methods that are mathematically equivalent with prior approval of ODOE. In making these calculations, the investigators may exclude carcass data from the first search of each turbine plot (to eliminate possible counting of carcasses that were present before the turbine was operating).

The investigators shall estimate the number of avian and bat fatalities attributable to operation of the facility based on the number of avian and bat fatalities found at the facility site. All carcasses located within areas surveyed, regardless of species, will be recorded and, if possible, a cause of death determined based on blind necropsy results. If a different cause of death is not apparent, the fatality will be attributed to facility operation. The total number of avian and bat fatalities will be estimated by adjusting for removal and searcher efficiency bias.

On an annual basis, the certificate holder shall report an estimate of fatalities in eight categories: (1) all birds, (2) small birds, (3) large birds, (4) raptors, (5) grassland birds, (6) nocturnal migrants, (7) state and federally listed threatened and endangered species and State Sensitive Species listed under OAR 635-100-0040 and (8) bats. The certificate holder shall report annual fatality rates on both a per-MW and per-turbine basis.

(e) Incidental Finds and Injured Birds

The searchers might discover carcasses incidental to formal carcass searches (e.g., while driving within the project area). For each incidentally discovered carcass, the searcher shall identify, photograph, record data and collect the carcass as would be done for carcasses within the formal search sample during scheduled searches. If the incidentally discovered carcass is found within a formal search plot, the fatality data will be included in the calculation of fatality rates. If the incidentally discovered carcass is found outside a formal search plot, the data will be reported separately. The certificate holder shall coordinate collection of incidentally discovered state endangered, threatened, sensitive or other state protected species with ODFW. The certificate holder shall coordinate collection of incidentally discovered federally-listed endangered or threatened species and Migratory Bird Treaty Act protected avian species with the USFWS.

The certificate holder shall develop and follow a protocol for handling injured birds. Any injured native birds found on the facility site will be carefully captured by a trained project biologist or technician and transported to a qualified rehabilitation specialist approved by ODOE.¹ The certificate holder shall pay costs, if any, charged for time and expenses related

¹ Approved specialists include Lynn Tompkins (wildlife rehabilitator) of Blue Mountain Wildlife, a wildlife rehabilitation center in Pendleton, and the Audubon Bird Care Center in Portland. The certificate holder must obtain

to care and rehabilitation of injured native birds found on the site, unless the cause of injury is clearly demonstrated to be unrelated to the facility operations.

(f) Statistical Methods for Fatality Estimates (Shoenfeld Estimator)

The estimate of the total number of wind facility-related fatalities is based on:

- (1) The observed number of carcasses found during standardized searches during the two monitoring years for which the cause of death is attributed to the facility.²
- (2) Searcher efficiency expressed as the proportion of planted carcasses found by searchers.
- (3) Removal rates expressed as the estimated average probability a carcass is expected to remain in the study area and be available for detection by the searchers during the entire survey period.

Definition of Variables

The following variables are used in the equations below:

c_i	the number of carcasses detected at plot i for the study period of interest (e.g., one year) for which the cause of death is either unknown or is attributed to the facility
n	the number of search plots
k	the number of turbines searched (includes the turbines centered within each search plot and a proportion of the number of turbines adjacent to search plots to account for the effect of adjacent turbines on the search plot buffer area)
\bar{c}	the average number of carcasses observed per turbine per year
s	the number of carcasses used in removal trials
s_c	the number of carcasses in removal trials that remain in the study area after 35 days
se	standard error (square of the sample variance of the mean)
t_i	the time (days) a carcass remains in the study area before it is removed
\bar{t}	the average time (days) a carcass remains in the study area before it is removed
d	the total number of carcasses placed in searcher efficiency trials
p	the estimated proportion of detectable carcasses found by searchers

ODOE approval before using other specialists.

² If a different cause of death is not apparent, the fatality will be attributed to facility operation.

- I the average interval between searches in days
- $\hat{\pi}$ the estimated probability that a carcass is both available to be found during a search and is found
- m_t the estimated annual average number of fatalities per turbine per year, adjusted for removal and observer detection bias
- C nameplate energy output of turbine in megawatts (MW)

Observed Number of Carcasses

The estimated average number of carcasses (\bar{c}) observed per turbine per year is:

$$\bar{c} = \frac{\sum_{i=1}^n c_i}{k}. \quad (1)$$

Estimation of Carcass Removal

Estimates of carcass removal are used to adjust carcass counts for removal bias. Mean carcass removal time (\bar{t}) is the average length of time a carcass remains at the site before it is removed:

$$\bar{t} = \frac{\sum_{i=1}^s t_i}{s - s_c}. \quad (2)$$

This estimator is the maximum likelihood estimator assuming the removal times follow an exponential distribution and there is right-censoring of data. Any trial carcasses still remaining at 35 days are collected, yielding censored observations at 35 days. If all trial carcasses are removed before the end of the trial, then s_c is 0, and \bar{t} is just the arithmetic average of the removal times. Removal rates will be estimated by carcass size (small and large), habitat type and season.

Estimation of Observer Detection Rates

Observer detection rates (i.e., searcher efficiency rates) are expressed as p , the proportion of trial carcasses that are detected by searchers. Observer detection rates will be estimated by carcass size, habitat type and season.

Estimation of Facility-Related Fatality Rates

The estimated per turbine annual fatality rate (m_t) is calculated by:

$$m_t = \frac{\bar{c}}{\hat{\pi}}, \quad (3)$$

where $\hat{\pi}$ includes adjustments for both carcass removal (from scavenging and other means) and observer detection bias assuming that the carcass removal times t_i follow an exponential distribution. Under these assumptions, this detection probability is estimated by:

$$\hat{\pi} = \frac{\bar{t} \cdot p}{I} \cdot \left[\frac{\exp\left(\frac{I}{\bar{t}}\right) - 1}{\exp\left(\frac{I}{\bar{t}}\right) - 1 + p} \right]. \quad (4)$$

The estimated per MW annual fatality rate (m) is calculated by:

$$m = \frac{m_i}{C}. \quad (5)$$

The final reported estimates of m , associated standard errors and 90% confidence intervals will be calculated using bootstrapping (Manly 1997). Bootstrapping is a computer simulation technique that is useful for calculating point estimates, variances and confidence intervals for complicated test statistics. For each iteration of the bootstrap, the plots will be sampled with replacement, trial carcasses will be sampled with replacement, and \bar{c} , \bar{t} , p , $\hat{\pi}$ and m will be calculated. A total of 5,000 bootstrap iterations will be used. The reported estimates will be the means of the 5,000 bootstrap estimates. The standard deviation of the bootstrap estimates is the estimated standard error. The lower 5th and upper 95th percentiles of the 5000 bootstrap estimates are estimates of the lower limit and upper limit of 90% confidence intervals.

Nocturnal Migrant and Bat Fatalities

Differences in observed nocturnal migrant and bat fatality rates for lit turbines, unlit turbines that are adjacent to lit turbines and unlit turbines that are not adjacent to lit turbines will be compared graphically and statistically.

(g) Mitigation

The certificate holder shall use a worst-case analysis to resolve any uncertainty in the results and to determine whether the data indicate that additional mitigation should be considered. ODOE may require additional, targeted monitoring if the data indicate the potential for significant impacts that cannot be addressed by worst-case analysis and appropriate mitigation.

Mitigation may be appropriate if fatality rates exceed a "threshold of concern."³ For the purpose of determining whether a threshold has been exceeded, the certificate holder shall calculate the average annual fatality rates for species groups after each year of monitoring. Based on current knowledge of the species that are likely to use the habitat in the area of the facility, the following thresholds apply to the WWEF:

Species Group	Threshold of Concern (fatalities per MW)
Raptors (All eagles, hawks, falcons and owls, including burrowing owls.)	0.09
Raptor species of special concern (Swainson's hawk, ferruginous hawk, peregrine falcon, golden eagle, bald eagle, burrowing owl.)	0.06
Grassland species (All native bird species that rely on grassland habitat and are either resident species occurring year round or species that nest in the area, excluding horned lark, burrowing owl and northern harrier.)	0.59
State sensitive avian species listed under OAR 635-100-0040 (Excluding raptors listed above.)	0.2
Bat species as a group	2.5

If the data show that a threshold of concern for an avian species group has been exceeded, the certificate holder shall implement mitigation if ODOE determines that mitigation is appropriate based on analysis of the data, consultation with ODFW, and consideration of any other significant information available at the time. In addition, ODOE may determine that mitigation is appropriate if fatality rates for individual avian or bat species (especially State Sensitive Species) are higher than expected and at a level of biological concern. If ODOE determines that mitigation is appropriate, the certificate holder, in consultation with ODOE and ODFW, shall propose mitigation measures designed to benefit the affected species. This may take into consideration whether the mitigation required or provided in conjunction with raptor nest monitoring, habitat mitigation, or other components of the *Wildlife Monitoring and Mitigation Plan* or *Habitat Mitigation Plan*, would also benefit the affected species.

The certificate holder shall implement mitigation as approved by ODOE, subject to review by the Council. ODOE may recommend additional, targeted data collection if the need for

³ The Council adopted "thresholds of concern" for raptors, grassland species, and state sensitive avian species in the Final Order on the Application for the Klondike III Wind Project (June 30, 2006) and for bats in the Final Order on the Application for the Biglow Canyon Wind Farm (June 30, 2006). As explained in the Klondike III order: "Although the threshold numbers provide a rough measure for deciding whether the Council should be concerned about observed fatality rates, the thresholds have a very limited scientific basis. The exceeding of a threshold, by itself, would not be a scientific indicator that operation of the facility would result in range-wide population level declines of any of the species affected. The thresholds are provided in the Wildlife Monitoring and Mitigation Plan to guide consideration of additional mitigation based on two years of monitoring data."

mitigation is unclear based on the information available at the time. The certificate holder shall implement such data collection as approved by the Council.

The certificate holder shall design mitigation to benefit the affected species group. Mitigation may include, but is not limited to, protection of nesting habitat for the affected group of native species through a conservation easement or similar agreement. Tracts of land that are intact and functional for wildlife are preferable to degraded habitat areas. Preference should be given to protection of land that would otherwise be subject to development or use that would diminish the wildlife value of the land. In addition, mitigation measures might include: enhancement of the protected tract by weed removal and control; increasing the diversity of native grasses and forbs; planting sagebrush or other shrubs; constructing and maintaining artificial nest structures for raptors; improving wildfire response; and conducting or making a contribution to research that will aid in understanding more about the affected species and its conservation needs in the region.

If the data show that the threshold of concern for bat species as a group has been exceeded, the certificate holder shall implement mitigation if ODOE determines that mitigation is appropriate based on analysis of the data, consultation with ODFW, and consideration of any other significant information available at the time. For example, if the threshold for bat species as a group is exceeded, the certificate holder may contribute to Bat Conservation International or to a Pacific Northwest bat conservation group to fund new or ongoing research in the Pacific Northwest to better understand wind facility impacts to bat species and to develop possible ways to reduce impacts to the affected species.

2. Raptor Nest Surveys

The objectives of raptor nest surveys are: (1) to estimate the size of the local breeding populations of raptor species that nest on the ground or aboveground in trees or other aboveground nest locations in the vicinity of the facility; and (2) to determine whether there are noticeable changes in nesting activity or nesting success in the local populations of the following raptor species: Swainson's hawk, golden eagle, ferruginous hawk and burrowing owl.

The certificate holder shall conduct short-term and long-term monitoring. The investigators will use aerial and ground surveys to evaluate nest success by gathering data on active nests, on nests with young, and on young fledged.

(a) Short-Term Monitoring

Short-term monitoring will be done in two monitoring seasons. The first monitoring season will be in the first raptor nesting season after completion of construction of the facility. The second monitoring season will be in the fourth year after construction is completed. The certificate holder shall provide a summary of the first-year results in the monitoring report described in Section 4. After the second monitoring season, the investigators will analyze two years of data compared to the baseline data.

During each monitoring season, the investigators will conduct a minimum of one aerial and one ground survey for raptor nests in late May or early June and additional surveys as described in this section. The survey area is the area within the facility site and a 2-mile

buffer zone around the site. For the ground surveys while checking for nesting *success* (conducted within the facility site and up to a maximum of ½ mile from the facility site), nests outside the leased project boundary will be checked from an appropriate distance where feasible, depending on permission from the landowner for access.

All nests discovered during pre-construction surveys and any nests discovered during post-construction surveys, whether active or inactive, will be given identification numbers. Global positioning system (GPS) coordinates will be recorded for each nest. Locations of inactive nests will be recorded because they could become occupied during future years.

Determining nest *occupancy* may require one or two visits to each nest. Aerial surveys for nest occupancy will be conducted within the facility site and a 2-mile buffer. For occupied nests, the certificate holder will determine nesting *success* by a minimum of one ground visit to determine the species, number of young and young fledged within the facility site and up to ½ mile from the facility site. "Nesting success" means that the young have successfully fledged (the young are independent of the core nest site).

(b) Long-Term Monitoring

In addition to the two years of post-construction raptor nest surveys described in Section 2(a), the investigators shall conduct long-term raptor nest surveys at 5-year intervals for the life of the facility.⁴ Investigators will conduct the first long-term raptor nest survey in the raptor nesting season of the ninth year after construction is completed and will repeat the survey at 5-year intervals thereafter. In conducting long-term surveys, the investigators will follow the same survey protocols as described above in Section 2(a) unless the investigators propose alternative protocols that are approved by ODOE. In developing an alternative protocol, the investigators will consult with ODFW and will take into consideration other raptor nest monitoring conducted in adjacent areas. The investigators will analyze the data—as a way of determining trends in the number of raptor breeding attempts the facility supports and the success of those attempts—and will submit a report after each year of long-term raptor nest surveys.

3. Wildlife Reporting and Handling System

The Wildlife Reporting and Handling System (WRHS) is a monitoring program to search for and handle avian and bat casualties found by maintenance personnel during operation of the facility. Maintenance personnel will be trained in the methods needed to carry out this program. This monitoring program includes the initial response, handling and reporting of bird and bat carcasses discovered incidental to maintenance operations ("incidental finds").

All avian and bat carcasses discovered by maintenance personnel will be photographed and data will be recorded as would be done for carcasses within the formal search sample during scheduled searches. If maintenance personnel discover incidental finds, the maintenance personnel will notify a project biologist. The Project biologist (or the Project biologist's experienced wildlife technician) will collect the carcass or will instruct maintenance

⁴ As used in this plan, "life of the facility" means continuously until the facility site is restored and the site certificate is terminated in accordance with OAR 345-027-0110.

personnel to have an on-site carcass handling permittee collect the carcass. The certificate holder's on-site carcass handling permittee must be a person who is listed on state and federal scientific or salvage collection permits and who is available to process (collect) the find on the day it is discovered. The find must be processed on the same day as it is discovered.

During the years in which fatality monitoring occurs, if maintenance personnel discover incidental finds outside the search plots for the fatality monitoring searches, the data will be reported separately from fatality monitoring data. If maintenance personnel discover carcasses within search plots, the data will be included in the calculation of fatality rates. The maintenance personnel will notify a project biologist. The Project biologist will collect the carcass or will instruct maintenance personnel to have an on-site carcass handling permittee collect the carcass. As stated above, the on-site permittee must be available to process the find on the day it is discovered. The certificate holder shall coordinate collection of state endangered, threatened, sensitive or other state protected species with ODFW. The certificate holder shall coordinate collection of federally-listed endangered or threatened species and Migratory Bird Treaty Act protected avian species with the USFWS.

4. Data Reporting

The certificate holder will report wildlife monitoring data and analysis to the ODOE for each calendar year in which wildlife monitoring occurs. Monitoring data include fatality monitoring program data, raptor nest survey data, and WRHS data. The certificate holder may include the reporting of wildlife monitoring data and analysis in the annual report required under OAR 345-026-0080 or submit this information as a separate document at the same time the annual report is submitted. In addition, the certificate holder shall provide to ODOE any data or record generated in carrying out this monitoring plan upon request by ODOE.

The certificate holder shall notify USFWS and ODFW immediately if any federal or state endangered or threatened species are killed or injured on the facility site.

5. Amendment of the Plan

This *Wildlife Monitoring and Mitigation Plan* may be amended from time to time by agreement of the certificate holder and the Council. Such amendments may be made without amendment of the site certificate. The Council authorizes ODOE to agree to amendments to this plan and to mitigation actions that may be required under this plan. ODOE shall notify the Council of all amendments and mitigation actions, and the Council retains the authority to approve, reject or modify any amendment of this plan or mitigation action agreed to by ODOE.

Attachment E: Site Certificate

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

**Site Certificate for the
Wheatridge Wind Energy Facility**

**ISSUE DATE
APRIL 2017**

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WHEATRIDGE WIND ENERGY FACILITY SITE CERTIFICATE

Attachments

Attachment A Facility Site Boundary Map

Acronyms and Abbreviations

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

1.0 Introduction and Site Certification

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

Both the State and certificate holder must abide by local ordinances, state law and the rules of the Council in effect on the date this site certificate is executed. However, upon a clear showing of a significant threat to public health, safety, or the environment that requires application of later-adopted laws or rules, the Council may require compliance with such later-adopted laws or rules (ORS 469.401(2)).

Subject to the conditions herein, this site certificate binds the State and all counties, cities and political subdivisions in Oregon as to the approval of the site and the construction, operation, and retirement of the facility as to matters that are addressed in and governed by this site certificate (ORS 469.401(3)). This site certificate does not address, and is not binding with respect to, matters that are not included in and governed by this site certificate, and such matters include, but are not limited to: employee health and safety; building code compliance; wage and hour or other labor regulations; local government fees and charges; other design or operational issues that do not relate to siting the facility (ORS 469.401(4)); and permits issued under statutes and rules for which the decision on compliance has been delegated by the federal government to a state agency other than the Council (ORS 469.503(3)).

Each affected state agency, county, city, and political subdivision in Oregon with authority to issue a permit, license, or other approval addressed in or governed by this site certificate, shall upon submission of the proper application and payment of the proper fees, but without hearings or other proceedings, issue such permit, license or other approval subject only to conditions set forth in this site certificate. In addition, each state agency or local government agency that issues a permit, license or other approval for this facility shall continue to exercise enforcement authority over such permit, license or other approval (ORS 469.401(3)). For those permits, licenses, or other approvals addressed in and governed by this site certificate, the certificate holder shall comply with applicable state and federal laws adopted in the future to the extent that such compliance is required under the respective state agency statutes and rules (ORS 469.401(2)).

The certificate holder must construct, operate and retire the facility in accordance with all applicable rules as provided for in Oregon Administrative Rule (OAR) Chapter 345, Division 26. After issuance of this site certificate, the Council shall have continuing authority over the site and may inspect, or direct the Oregon Department of Energy (Department) to inspect, or request another state agency or local government to inspect, the site at any time in order to ensure that the facility is being operated consistently with the terms and conditions of this site certificate (ORS 469.430).

The obligation of the certificate holder to report information to the Department or the Council under the conditions listed in this site certificate is subject to the provisions of ORS 192.502 *et seq.* and ORS 469.560. To the extent permitted by law, the Department and the Council will not publicly disclose information that may be exempt from public disclosure if the certificate holder has clearly labeled such information and stated the basis for the exemption at the time of submitting the information to the Department or the Council. If the Council or the Department receives a request for the disclosure of the information, the Council or the Department, as appropriate, will make a reasonable attempt to notify the certificate holder and will refer the matter to the Attorney General for a determination of whether the exemption is applicable, pursuant to ORS 192.450.

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

The definitions in ORS 469.300 and OAR 345-001-0010 apply to the terms used in this site certificate, except where otherwise stated, or where the context clearly indicates otherwise. The findings of fact, reasoning, and conclusions of law underlying the terms and conditions of this site certificate are set forth in the Council's Final Order in the Matter of the Application for a Site Certificate (ASC) for the Wheatridge Wind Energy Facility (Final Order on ASC) issued on April 28, 2017, incorporated herein by this reference. In interpreting this site certificate, any ambiguity is to be clarified by reference to the following, in order of priority: (1) this Site Certificate, (2) the Final Order on the ASC and (3) the record of the proceedings that led to the Final Order on the ASC.

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

2.0 Facility Location

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

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

2.1 Site Boundary

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

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

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

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

2.2 Micrositing Corridor

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

2.3 Intraconnection Transmission Line Corridor

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

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

3.0 Facility Description

3.1 Energy Facility

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

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

Table 2: Turbine Specifications used for Impact Evaluations

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

3.2 Related or Supporting Facilities

The facility includes the following related or supporting facilities:

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

Electrical Collection System

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

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

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

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

Collector Substations

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

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

230 kV Intraconnection Transmission Line

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

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

- Option 1: Two Project Substations to Longhorn
 - This option runs from Substation 3 in Wheatridge East to Substation 1 in Wheatridge West and then to the proposed UEC/CB Strawberry substation, just to the west of Wheatridge West, for interconnection to a UEC or UEC/CB operated Gen-tie Line to the proposed BPA Longhorn substation. The intraconnection line route is 31.5 miles (50.5 kilometers) in length.
- Option 2: Three Project Substations to Longhorn
 - This option runs from Substation 3 in Wheatridge East to Substation 2b in Wheatridge West, then on to Substation 2a in Wheatridge West, and then to the proposed UEC/CB Strawberry substation, just west of Wheatridge West, for interconnection to a UEC or UEC/CB operated Gen-tie Line to the proposed BPA Longhorn substation. The intraconnection line route is 31.3 miles (50.3 kilometers) in length.
- Option 3: Two Project Substations to Stanfield
 - This option runs from Substation 1 in Wheatridge West to Substation 3 in Wheatridge East for interconnection to a UEC operated Gen-tie Line to the proposed BPA Stanfield substation. The intraconnection line route is 24.5 miles (39.4 kilometers) in length.
- Option 4: Three Project Substations to Stanfield
 - This option runs from Substation 2a in Wheatridge West to Substation 2b in Wheatridge West, and then to Substation 3 in Wheatridge East for interconnection to a UEC operated Gen-tie Line to the proposed BPA Stanfield substation. The intraconnection line route is 27.8 miles (44.7 kilometers) in length.

Meteorological Towers

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

Communication and SCADA System

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

O&M Buildings

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

Access Roads

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

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

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

Temporary access roads were needed for the construction of the intraconnection transmission line(s). The intraconnection transmission line(s) can be constructed and maintained using only large trucks rather than heavy construction cranes, and construction will occur during the dry time of year when the ground surface is hard enough to support those vehicles. Therefore, the interconnection

transmission lines do not include permanent access roads. The total mileage of the temporary access roads needed for constructing the intraconnection transmission line(s) depends on the intraconnection line route option chosen. The shortest route would require approximately 22.8 miles of access roads, while the longest would require approximately 25.5 miles.

Additional Construction Yards

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

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

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

4.0 Site Certificate Conditions

4.1 Condition Format

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

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

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

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

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

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

Condition Number	General (GEN) Conditions
STANDARD: GENERAL STANDARD OF REVIEW (GS) [OAR 345-022-0000]	
GEN-GS-01	<p>The certificate holder shall begin construction of the facility within three years after the effective date of the site certificate. Under OAR 345-015-0085(9), the site certificate is effective upon execution by the Council chair and the applicant.</p> <p>[Final Order on ASC, General Standard Condition 1]</p>
GEN-GS-02	<p>The certificate holder shall complete construction of the facility within six years after the effective date of the site certificate.</p> <p>[Final Order on ASC, General Standard Condition 2]</p>
GEN-GS-03	<p>The certificate holder shall design, construct, operate, and retire the facility:</p> <ul style="list-style-type: none"> a. Substantially as described in the site certificate; b. In compliance with the requirements of ORS Chapter 469, applicable Council rules, and applicable state and local laws, rules and ordinances in effect at the time the site certificate is issued; and c. In compliance with all applicable permit requirements of other state agencies. <p>[Final Order on ASC, Mandatory Condition 2] [OAR 345-027-0020(3)]</p>
GEN-GS-04	<p>Except as necessary for the initial survey or as otherwise allowed for wind energy facilities, transmission lines or pipelines under this section, the certificate holder shall not begin construction, as defined in OAR 345-001-0010, or create a clearing on any part of the site until the certificate holder has construction rights on all parts of the site. For the purpose of this rule, “construction rights” means the legal right to engage in construction activities. For wind energy facilities, transmission lines or pipelines, if the certificate holder does not have construction rights on all parts of the site, the certificate holder may nevertheless begin construction, as defined in OAR 345-001-0010, or create a clearing on a part of the site if the certificate holder has construction rights on that part of the site and the certificate holder would construct and operate part of the facility on that part of the site even if a change in the planned route of a transmission line or pipeline occurs during the certificate holder’s negotiations to acquire construction rights on another part of the site.</p> <p>[Final Order on ASC, Mandatory Condition 3] [OAR 345-027-0020(5)]</p>
GEN-GS-05	<p>If the certificate holder becomes aware of a significant environmental change or impact attributable to the facility, the certificate holder shall, as soon as possible, submit a written report to the department describing the impact on the facility and any affected site certificate conditions.</p> <p>[Final Order on ASC, Mandatory Condition 4] [OAR 345-027-0020(6)]</p>
GEN-GS-06	<p>The Council shall include as conditions in the site certificate all representations in the site certificate application and supporting record the Council deems to be binding commitments made by the applicant.</p> <p>[Final Order on ASC, Mandatory Condition 5] [OAR 345-027-0020(10)]</p>

GEN-GS-07	<p>Upon completion of construction, the certificate holder shall restore vegetation to the extent practicable and shall landscape all areas disturbed by construction in a manner compatible with the surroundings and proposed use. Upon completion of construction, the certificate holder shall remove all temporary structures not required for facility operation and dispose of all timber, brush, refuse and flammable or combustible material resulting from clearing of land and construction of the facility.</p> <p>[Final Order on ASC, Mandatory Condition 6] [OAR 345-027-0020(11)]</p>
GEN-GS-08	<p>The certificate holder shall design, engineer and construct the facility to avoid dangers to human safety presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events. As used in this rule “seismic hazard” includes ground shaking, landslide, liquefaction, lateral spreading, tsunami inundation, fault displacement and subsidence.</p> <p>[Final Order on ASC, Mandatory Condition 7] [OAR 345-027-0020(12)]</p>
GEN-GS-09	<p>The certificate holder shall notify the department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if site investigations or trenching reveal that conditions in the foundation rocks differ significantly from those described in the application for a site certificate. After the Department receives the notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division and to propose mitigation actions.</p> <p>[Final Order on ASC, Mandatory Condition 8] [OAR 345-027-0020(13)]</p>
GEN-GS-10	<p>The certificate holder shall notify the department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if shear zones, artesian aquifers, deformations or clastic dikes are found at or in the vicinity of the site.</p> <p>[Final Order on ASC, Mandatory Condition 9] [OAR 345-027-0020(14)]</p>
GEN-GS-11	<p>Before any transfer of ownership of the facility or ownership of the site certificate holder, the certificate holder shall inform the department of the proposed new owners. The requirements of OAR 345-027-0100 apply to any transfer of ownership that requires a transfer of the site certificate.</p> <p>[Final Order on ASC, Mandatory Condition 10] [OAR 345-027-0020(15)]</p>
GEN-GS-12	<p>The Council shall specify an approved corridor in the site certificate and shall allow the certificate holder to construct the pipeline or transmission line anywhere within the corridor, subject to the conditions of the site certificate. If the applicant has analyzed more than one corridor in its application for a site certificate, the Council may, subject to the Council’s standards, approve more than one corridor.</p> <p><i>[The transmission line corridors approved by EFSC pursuant to this condition is described in Section 2.3 of the site certificate, and presented in the facility site map (see Attachment A of the site certificate).</i></p> <p><i>[Final Order on ASC, Site Specific Condition 1] [OAR 345-027-0023(5)]</i></p>
STANDARD: ORGANIZATIONAL EXPERTISE (OE) [OAR 345-022-0010]	
GEN-OE-01	<p>Any matter of non-compliance under the site certificate is the responsibility of the certificate holder. Any notice of violation issued under the site certificate will be issued to the certificate holder. Any civil penalties under the site certificate will be levied on the certificate holder.</p> <p>[Final Order on ASC, Organizational Expertise Condition 5]</p>

GEN-OE-02	<p>In addition to the requirements of OAR 345-026-0170, within 72 hours after discovery of incidents or circumstances that violate the terms or conditions of the site certificate, the certificate holder must report the conditions or circumstances to the department.</p> <p>[Final Order on ASC, Organizational Expertise Condition 6]</p>
STANDARD: STRUCTURAL (SS) [OAR 345-022-0020]	
GEN-SS-01	<p>The certificate holder shall design, engineer, and construct the facility in accordance with the current versions of the latest International Building Code, Oregon Structural Specialty Code, and building codes as adopted by the State of Oregon at the time of construction.</p> <p>[Final Order on ASC, Structural Standard Condition 2]</p>

STANDARD: LAND USE (LU) [OAR 345-022-0030]

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

GEN-LU-08	During facility design and construction of new access roads and road improvements, the certificate holder shall implement best management practices after consultation with the Umatilla County Soil Water Conservation district. The new and improved road designs must be reviewed and certified by a civil engineer. [Final Order on ASC, Land Use Condition 22]
GEN-LU-09	Before beginning electrical production, the certificate holder shall provide the location of each turbine tower, electrical collecting lines, the O&M building, the substation, project access roads, and portion of the intraconnection transmission line located in Umatilla County to the department and Umatilla County in a format suitable for GPS mapping. [Final Order on ASC, Land Use Condition 24]
GEN-LU-10	During construction and operation of the facility, the certificate holder shall deliver a copy of the annual report required under OAR 345-026-0080 to the Umatilla County Planning Commission on an annual basis. [Final Order on ASC, Land Use Condition 28]
STANDARD: RETIREMENT AND FINANCIAL ASSURANCE (RT) [OAR 345-022-0050]	
GEN-RT-01	The certificate holder shall prevent the development of any conditions on the site that would preclude restoration of the site to a useful, non-hazardous condition to the extent that prevention of such site conditions is within the control of the certificate holder. [Final Order on ASC, Retirement and Financial Assurance Condition 1] [Mandatory Condition OAR 345-027-0020(7)]
STANDARD: FISH AND WILDLIFE HABITAT (FW) [OAR 345-022-0060]	
GEN-FW-01	During construction and operation, the certificate holder shall impose a 20 mile per hour speed limit on new and improved private access roads, which have been approved as a related and supporting facility to the energy facility. [Final Order on ASC, Fish and Wildlife Habitat Condition 2]
GEN-FW-02	The certificate holder shall construct all overhead collector and transmission intraconnection lines in accordance with the latest Avian Power Line Interaction Committee design standards, and shall only install permanent meteorological towers that are unguyed. [Final Order on ASC, Fish and Wildlife Habitat Condition 6]
STANDARD: SCENIC RESOURCES (SR) [OAR 345-022-0080]	
GEN-SR-01	To reduce visual impacts associated with lighting facility structures, other than lighting on structures subject to the requirements of the Federal Aviation Administration or the Oregon Department of Aviation, the certificate holder shall implement the following measures: <ul style="list-style-type: none"> a. Outdoor night lighting at the collector substations and Operations and Maintenance Buildings must be <ul style="list-style-type: none"> i. The minimum number and intensity required for safety and security; ii. Directed downward and inward within the facility to minimize backscatter and offsite light trespass; and iii. Have motion sensors and switches to keep lights turned off when not needed. [Final Order on ASC, Scenic Resources Condition 1]

GEN-SR-02	<p>The certificate holder shall:</p> <ul style="list-style-type: none"> a. Design and construct the O&M buildings generally consistent with the character of agricultural buildings used by farmers or ranchers in the area, and the buildings shall be finished in a neutral color to blend with the surrounding landscape; b. Paint or otherwise finish turbine structures in a grey, white, or off-white, low reflectivity coating to minimize reflection and contrast with the sky, unless required otherwise by the local code applicable to the structure location. c. Design and construct support towers for the intraconnection transmission lines using either wood or steel structures and utilize finish with a low reflectivity coating; d. Finish substation structures utilizing neutral colors to blend with the surrounding landscape; e. Minimize use of lighting and design lighting to prevent offsite glare; f. Not display advertising or commercial signage on any part of the proposed facility; g. Limit vegetation clearing and ground disturbance to the minimum area necessary to safely and efficiently install the facility equipment; h. Water access roads and other areas of ground disturbance during construction, as needed, to avoid the generation of airborne dust; and i. Restore and revegetate temporary impact areas as soon as practicable following completion of construction. <p>[Final Order on ASC, Scenic Resources Condition 2]</p>
STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0110]	
GEN-PS-01	<p>During construction and operation, the certificate holder shall coordinate with its solid waste handler to provide the information solicited through the Oregon Department of Environmental Quality's Recycling Collector Survey to the Morrow County waste shed representative on an annual basis.</p> <p>[Final Order on ASC, Public Services Condition 5]</p>
GEN-PS-02	<p>The certificate holder shall construct turbine towers with no exterior ladders or access to the turbine blades and shall install locked tower access doors. The O&M buildings shall be fenced. The certificate holder shall keep tower access doors and O&M buildings locked at all times, except when authorized personnel are present.</p> <p>[Final Order on ASC, Public Services Condition 11]</p>

GEN-PS-03	<p>Prior to construction and operation of the facility, , the certificate holder must provide employee fire prevention and response training that includes instruction on facility fire hazards, fire safety, emergency notification procedures, use of fire safety equipment, and fire safety rules and regulations. The certificate holder shall notify the department and the first-response agencies listed in the Emergency Management Plan developed to comply with Public Services Condition 13 at least 30 days prior to the annual training to provide an opportunity to participate in the training. Equivalent training shall be provided to new employees or subcontractors working on site that are hired during the fire season. The certificate holder must retain records of the training and provide them to the department upon request.</p> <p>[Final Order on ASC, Public Services Condition 18]</p>
<i>STANDARD: PUBLIC HEALTH AND SAFETY FOR WIND FACILITIES (WF) [OAR 345-024-0010]</i>	
GEN-WF-01	<p>During construction and operation, the certificate holder shall follow manufacturers' recommended handling instructions and procedures to prevent damage to turbine or turbine tower components.</p> <p>[Final Order on ASC, Public Health and Safety Standards for Wind Facilities Condition 3]</p>
GEN-WF-02	<p>The certificate holder shall notify the department, the Morrow County Planning Department and the Umatilla County Planning Department within 72 hours of any accidents including mechanical failures on the site associated with construction or operation of the facility that may result in public health or safety concerns.</p> <p>[Final Order on ASC, Public Health and Safety Standards for Wind Facilities Condition 5]</p>

4.3 Pre-Construction (PRE) Conditions

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

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

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

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

PRE-SP-01	<p>Prior to beginning construction, the certificate holder shall provide a copy of a DEQ-approved construction Spill Prevention Control and Countermeasures (SPCC) plan, to be implemented during facility construction. The SPCC plan shall include the measures described in Exhibit I of ASC and in the final order approving the site certificate.</p> <p>[Final Order on ASC, Soil Protection Condition 3]</p>
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PRE-SP-02	<p>Prior to construction, the certificate holder shall ensure that the final Revegetation Plan includes a program to protect and restore agricultural soils temporarily disturbed during facility construction. As described in the final order, agriculture soils shall be properly excavated, stored, and replaced by soil horizon. Topsoil shall be preserved and replaced. The Revegetation Plan shall be finalized pursuant to Fish and Wildlife Condition 11.</p> <p>[Final Order on ASC, Soil Protection Condition 4]</p>
PRE-SP-03	<p>Prior to beginning construction of the O&M buildings, the certificate holder shall secure any necessary septic system permits from DEQ. Copies of the necessary permits must be provided to the department prior to beginning construction of the O&M buildings.</p> <p>[Final Order on ASC, Soil Protection Condition 7]</p>
STANDARD: LAND USE (LU) [OAR 345-022-0030]	
PRE-LU-01	<p>Before beginning construction, the certificate holder shall complete the following:</p> <ul style="list-style-type: none"> a. Pay the requisite fee and obtain a Zoning Permit from Morrow County for all facility components sited in Morrow County; and b. Obtain all other necessary local permits, including building permits. <p>[Final Order on ASC, Land Use Condition 3]</p>
PRE-LU-02	<p>Before beginning construction, the certificate holder shall pay the requisite fee and obtain a Conditional Use Permit as required under Morrow County Zoning Ordinance Article 6 Section 6.015.</p> <p>[Final Order on ASC, Land Use Condition 5]</p>
PRE-LU-03	<p>Before beginning construction, the certificate holder shall prepare a Weed Control Plan that is consistent with Morrow and Umatilla County weed control requirements to be approved by the department. The department shall consult with Morrow and Umatilla counties and ODFW. The final plan must be submitted to the department no less than 30 days prior to the beginning of construction. The certificate holder shall implement the requirements of the approved plan during all phases of construction and operation of the facility.</p> <p>[Final Order on ASC, Land Use Condition 6]</p>
PRE-LU-04	<p>Before beginning construction, the certificate holder shall record in the real property records of Morrow County a Covenant Not to Sue with regard to generally accepted farming practices on adjacent farmland.</p> <p>[Final Order on ASC, Land Use Condition 7]</p>
PRE-LU-05	<p>Prior to beginning construction, the certificate holder shall consult with surrounding landowners and lessees and shall consider proposed measures to reduce or avoid any adverse impacts to farm practices on surrounding lands and to avoid any increase in farming costs during construction and operation of the facility. Prior to beginning construction, the certificate holder shall provide evidence of this consultation to the department, Morrow County, and Umatilla County.</p> <p>[Final Order on ASC, Land Use Condition 12]</p>
PRE-LU-06	<p>Before beginning construction, the certificate holder shall work with the Morrow County Road Department to identify specific construction traffic related concerns, and develop a traffic management plan that specifies necessary traffic control measures to mitigate the effects of the temporary increase in traffic. The certificate holder must provide a copy of the traffic management plan to the department and Morrow County, and must implement the traffic management plan during construction.</p> <p>[Final Order on ASC, Land Use Condition 13]</p>

PRE-LU-07	Before beginning construction, the certificate holder must pay the requisite fee(s) and obtain a Zoning Permit(s) from Umatilla County for facility components sited within Umatilla County, including, but not limited to, turbines, substation, O&M building, and the intraconnection line. [Final Order on ASC, Land Use Condition 15]
PRE-LU-08	Prior to facility construction, the certificate holder shall install gates and no trespassing signs at all private access roads established or improved for the purpose of facility construction and operation. [Final Order on ASC, Land Use Condition 18]
PRE-LU-09	Before beginning construction, the certificate holder shall record in the real property records of Umatilla County a Covenant Not to Sue with regard to generally accepted farming practices on adjacent farmland. [Final Order on ASC, Land Use Condition 21]
STANDARD: RETIREMENT AND FINANCIAL ASSURANCE (RT) [OAR 345-022-0050]	
PRE-RT-01	Before beginning construction of the facility, the certificate holder shall submit to the State of Oregon, through the Council, a bond or letter of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-hazardous condition. The certificate holder shall maintain a bond or letter of credit in effect at all times until the facility has been retired. The Council may specify different amounts for the bond or letter of credit during construction and during operation of the facility. [Final Order on ASC, Retirement and Financial Assurance Condition 4] [Mandatory Condition OAR 345-027-0020(8)]

PRE-RT-02	<p>Before beginning construction of the facility, the certificate holder shall submit to the State of Oregon, through the Council, a bond or letter of credit naming the State of Oregon, acting by and through the Council, as beneficiary or payee. The initial bond or letter of credit amount for the facility is \$18.1 million dollars (Q1 2015 dollars), to be adjusted to the date of issuance, and adjusted on an annual basis thereafter, as described in sub-paragraph (b) of this condition:</p> <ul style="list-style-type: none">(a) The certificate holder may adjust the amount of the initial bond or letter of credit based on the final design configuration of the facility. Any revision to the restoration costs should be adjusted to the date of issuance as described in (b) and subject to review and approval by the Council.(b) The certificate holder shall adjust the amount of the bond or letter of credit using the following calculation:<ul style="list-style-type: none">(1) Adjust the amount of the bond or letter of credit (expressed in Q1 2015 dollars) to present value, using the U.S. Gross Domestic Product Implicit Price Deflator, Chain-Weight, as published in the Oregon Department of Administrative Services' "Oregon Economic and Revenue Forecast" or by any successor agency and using the first quarter 2015 index value and the quarterly index value for the date of issuance of the new bond or letter of credit. If at any time the index is no longer published, the Council shall select a comparable calculation to adjust first quarter 2015 dollars to present value.(2) Round the result total to the nearest \$1,000 to determine the financial assurance amount.(c) The certificate holder shall use an issuer of the bond or letter of credit approved by the Council.(d) The certificate holder shall use a form of bond or letter of credit approved by the Council. The certificate holder shall describe the status of the bond or letter of credit in the annual report submitted to the Council under OAR 345-026-0080. The bond or letter of credit shall not be subject to revocation or reduction before retirement of the facility site. <p>[Final Order on ASC, Retirement and Financial Assurance Condition 5]</p>
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STANDARD: FISH AND WILDLIFE HABITAT (FW) [OAR 345-022-0060]

PRE-FW-01	<p>Prior to final site design and facility layout, the certificate holder shall conduct a field-based habitat survey to confirm the habitat categories of all areas that will be affected by facility components, as well as the locations of any sensitive resources such as active raptor and other bird nests. The survey shall be planned in consultation with the department and ODFW, and survey protocols shall be confirmed with the department and ODFW. Following completion of the field survey, and final layout design and engineering, the certificate holder shall provide the department and ODFW a report containing the results of the survey, showing expected final location of all facility components, the habitat categories of all areas that will be affected by facility components, and the locations of any sensitive resources.</p> <p>The report shall also include an updated version of Table FW-1 Potential Temporary and Permanent Impacts by Habitat Category and Type of the final order, showing the acres of expected temporary and permanent impacts to each habitat category, type, and sub-type. The pre-construction survey shall be used to complete final design, facility layout, and micro-siting of facility components. As part of the report, the certificate holder shall include its impact assessment methodology and calculations, including assumed temporary and permanent impact acreage for each transmission structure, wind turbine, access road, and all other facility components. If construction laydown yards are to be retained post construction, due to a landowner request or otherwise, the construction laydown yards must be calculated as permanent impacts, not temporary.</p> <p>In classifying the affected habitat into habitat categories, the certificate holder shall consult with the department and ODFW. The certificate holder shall not begin construction of the facility until the habitat assessment, categorization, and impact assessment has been approved by the department, in consultation with ODFW. The certificate holder shall not construct any facility components within areas of Category 1 habitat and shall avoid temporary disturbance of Category 1 habitat.</p> <p>[Final Order on ASC, Fish and Wildlife Condition 1]</p>
PRE-FW-02	<p>Prior to construction, the certificate holder shall finalize and implement the Wildlife Monitoring and Mitigation Plan (WMMP) provided in Attachment D of this order, based on the final facility design, as approved by the department in consultation with ODFW.</p> <ol style="list-style-type: none"> The final WMMP must be submitted and ODOE's concurrence received prior to the beginning of construction. ODOE shall consult with ODFW on the final WMMP. The certificate holder shall implement the requirements of the approved WMMP during all phases of construction and operation of the facility. The WMMP may be amended from time to time by agreement of the certificate holder and the Oregon Energy Facility Siting Council ("Council"). Such amendments may be made without amendment of the site certificate. The Council authorizes the Department to agree to amendments to this plan. The Department shall notify the Council of all amendments, and the Council retains the authority to approve, reject, or modify any amendment of the WMMP agreed to by the Department. <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 4]</p>
PRE-FW-03	<p>Prior to construction, the certificate holder shall flag all environmentally sensitive areas as restricted work zones. Restricted work zones shall include but not be limited to areas with sensitive or protected plant species, including candidate species, wetlands and waterways that are not authorized for construction impacts, areas with seasonal restrictions, and active state sensitive species bird nests.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 8]</p>

PRE-FW-04	<p>Before beginning construction the certificate holder shall prepare and receive approval from the department of a final Habitat Mitigation Plan. The final Habitat Mitigation Plan shall be based on the final facility design and shall be approved by the department in consultation with ODFW. The Council retains the authority to approve, reject or modify the final HMP.</p> <ol style="list-style-type: none"> The final Habitat Mitigation Plan and the department's approval must be received prior to beginning construction. The department shall consult with ODFW on the final plan. The certificate holder shall implement the requirements of the approved plan during all phases of construction and operation of the facility. The certificate holder shall calculate the size of the habitat mitigation area according to the final design configuration of the facility and the estimated areas of habitat affected in each habitat category, in consultation with the department, as per the pre-construction survey results and impact assessment calculations called for in Fish and Wildlife Condition 1. The certificate holder shall acquire the legal right to create, enhance, maintain, and protect the habitat mitigation area, as long as the site certificate is in effect, by means of an outright purchase, conservation easement or similar conveyance and shall provide a copy of the documentation to the department prior to the start of construction. Within the habitat mitigation area, the certificate holder shall improve the habitat quality as described in the final Habitat Mitigation Plan. The final HMP shall include an implementation schedule for all mitigation actions, including securing the conservation easement, conducting the ecological uplift actions at the habitat mitigation area, revegetation and restoration of temporarily impacted areas, and monitoring. The mitigation actions shall be implemented according to the following schedule, as included in the HMP: <ol style="list-style-type: none"> Restoration and revegetation of temporary construction-related impact area shall be conducted as soon as possible following construction. The certificate holder shall obtain legal authority to conduct the required mitigation work at the compensatory habitat mitigation site before commencing construction. The habitat enhancement actions at the compensatory habitat mitigation site shall be implemented concurrent with construction. The final HMP shall include a monitoring and reporting program for evaluating the effectiveness of all mitigation actions, including restoration of temporarily impacted areas and ecological uplift actions at the habitat mitigation area. The final HMP shall include mitigation in compliance with the Council's Fish and Wildlife Habitat standard, including mitigation for temporary impacts to Category 4 habitat (shrub-steppe habitat); and, mitigation for all Category 2 habitat impacts that meet the mitigation goal of no net loss of habitat quality or quantity, plus a net benefit of habitat quality or quantity. The final HMP may be amended from time to time by agreement of the certificate holder and the Oregon Energy Facility Siting Council ("Council"). Such amendments may be made without amendment of the site certificate. The Council authorizes the Department to agree to amendments to this plan. The Department shall notify the Council of all amendments, and the Council retains the authority to approve, reject, or modify any amendment of this plan agreed to by the Department. <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 10]</p>
PRE-FW-05	<p>Before beginning construction, the certificate holder shall prepare and receive approval of a final Revegetation Plan, provided as Attachment C to this order, from the department, in consultation with Umatilla and Morrow counties and ODFW. The certificate holder shall implement the requirements of the approved plan during all phases of construction and operation of the facility.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 11]</p>

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

PRE-TE-01	<p>Prior to construction, the certificate holder shall determine the boundaries of Category 1 Washington ground squirrel habitat. The certificate holder shall hire a qualified professional biologist who has experience in detection of Washington ground squirrel to conduct pre-construction surveys using a survey protocol approved by the department in consultation with ODFW. The biologist shall survey all areas of suitable habitat within 1,000 feet of any ground disturbing activity. Ground disturbing activity refers to any potential impact, whether permanent or temporary. The protocol surveys shall be conducted in the active squirrel season (March 1 to May 31) prior to construction commencement. The protocol survey is valid for three years. If construction begins within three years of conducting the protocol survey, but not within one year of the protocol survey, the certificate holder shall conduct a pre-construction survey only within areas of suitable Washington ground squirrel habitat where ground disturbing activity would occur.</p> <p>The certificate holder shall provide written reports of the surveys to the department and to ODFW and shall identify the boundaries of Category 1 Washington ground squirrel (WGS) habitat. The certificate holder shall not begin construction within suitable habitat until the identified boundaries of Category 1 WGS habitat have been approved by the department, in consultation with ODFW.</p> <p>The certificate holder shall avoid any permanent or temporary disturbance in all Category 1 WGS habitat. The certificate holder shall ensure that these sensitive areas are correctly marked with exclusion flagging and avoided during construction.</p> <p>[Final Order on ASC, Threatened and Endangered Species Condition 1]</p>
PRE-TE-02	<p>In accordance with Fish and Wildlife Condition 3, prior to construction, the certificate holder shall finalize and implement the Wildlife Monitoring and Mitigation Plan (WMMP) provided in Attachment D of this order, based on the final facility design, as approved by the department in consultation with ODFW. The final WMMP shall include a program to monitor potential impacts from facility operation on Washington ground squirrel. Monitoring shall be of any known colonies and shall be completed on the same schedule as the raptor nest monitoring for the facility. The monitoring surveys shall include returning to the known colonies to determine occupancy and the extent of the colony as well as a general explanation of the amount of use at the colony. If the colony is not found within the known boundary of the historic location a survey 500 feet out from the known colony will be conducted to determine if the colony has shifted over time. Any new colonies that are located during other monitoring activities, such as raptor nest monitoring surveys, shall be documented and the extent of those colonies should be delineated as well. These newly discovered colonies shall also be included in any future WGS monitoring activities.</p> <p>[Final Order on ASC, Threatened and Endangered Species Condition 2]</p>
PRE-TE-03	<p>To avoid potential impacts to Laurent's milkvetch, the certificate holder must:</p> <ol style="list-style-type: none"> i. Conduct preconstruction plant surveys for Laurent's milkvetch. If the species is found to occur, the certificate holder must install protection flagging around the plant population and avoid any ground disturbance within this zone. ii. Ensure that any plant protection zone established under (a) above is included on construction plans showing the final design locations. iii. If herbicides are used to control weeds, the certificate holder shall follow the manufacturer's guidelines in establishing a buffer area around confirmed populations of Laurent's milkvetch. Herbicides must not be used within the established buffers. <p>[Final Order on ASC, Threatened and Endangered Species Condition 3]</p>

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

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

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

PRE-PS-01	<p>Prior to construction, the certificate holder shall prepare a Traffic Management Plan that includes the procedures and actions described in this order and the mitigation measures identified in ASC Exhibit U, Section 3.5.4. The plan shall be approved by the department in consultation with the appropriate transportation service providers. The plan shall be maintained onsite and implemented throughout construction of the facility.</p> <p>In addition, the certificate holder shall include the following information in the plan:</p> <ol style="list-style-type: none"> Procedures to provide advance notice to all affected local jurisdictions and adjacent landowners of construction deliveries and the potential for heavy traffic on local roads; A policy of including traffic control procedures in contract specifications for construction of the facility; Procedures to maintain at least one travel lane at all times to the extent reasonably possible so that roads will not be closed to traffic because of construction vehicles; A policy of ensuring that no equipment or machinery is parked or stored on any county road whether inside or outside the site boundary. The certificate holder may temporarily park equipment off the road but within county rights-of-way with the approval of the Morrow County and Umatilla County Public Works Departments; A policy to encourage and promote carpooling for the construction workforce; and Procedures to keep state highways and county roads free of gravel that may be tracked out on intersecting roads at facility access points. <p>[Final Order on ASC, Public Services Condition 6]</p>
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PRE-PS-02	<p>Before beginning construction, the certificate holder must enter into Road Use Agreements with the Morrow County and Umatilla County Public Works Departments. The Agreements must include, at a minimum, a pre-construction assessment of road surfaces under Morrow County and Umatilla County jurisdiction, construction monitoring, and post-construction inspection and repair. A copy of the Road Use Agreements with Morrow County and Umatilla County must be submitted to the department before beginning construction. If required by Morrow County or Umatilla County, the certificate holder shall post bonds to ensure funds are available to repair and maintain roads affected by the facility.</p> <p>[Final Order on ASC, Public Services Condition 7]</p>
PRE-PS-03	<p>The certificate holder shall design and construct new access roads and private road improvements to standards approved by Umatilla County or Morrow County. Where modifications of county roads are necessary, the certificate holder shall construct the modifications entirely within the county road rights-of-way and in conformance with county road design standards subject to the approval of the Umatilla County and Morrow County Public Works Departments.</p> <p>[Final Order on ASC, Public Services Condition 8]</p>
PRE-PS-04	<p>Before beginning construction, the certificate holder shall submit to the Federal Aviation Administration (FAA) and the Oregon Department of Aviation an FAA Form 7460-1 Notice of Proposed Construction or Alteration for each turbine. Before beginning construction, the certificate holder shall submit to the department the results of the Oregon Department of Aviation aeronautical study and determination. If the department, in consultation with the Oregon Department of Aviation, determines that any turbine would adversely impact an airport's ability to provide service by obstructing the airport's primary or horizontal surface, the department, in consultation with the Oregon Department of Aviation and the certificate holder, shall determine appropriate mitigation, if any, prior to construction.</p> <p>[Final Order on ASC, Public Services Condition 9]</p>

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

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

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

PRE-NC-01

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

- a. Information that identifies the final design locations of all facility components to be built at the facility;
- b. The maximum sound power level for the facility components and the maximum sound power level and octave band data for the turbine type(s) and transformers selected for the facility based on manufacturers' warranties or confirmed by other means acceptable to the department;
- c. The results of the noise analysis of the final facility design performed in a manner consistent with the requirements of OAR 340-035-0035(1)(b)(B) (iii)(IV) and (VI). The analysis must demonstrate to the satisfaction of the department that the total noise generated by the facility (including turbines and transformers) would meet the ambient noise degradation test and maximum allowable test at the appropriate measurement point for all potentially-affected noise sensitive properties, or that the certificate holder has obtained the legally effective easement or real covenant for expected exceedances of the ambient noise degradation test described (d) below. The analysis must also identify the noise reduction operation (NRO) mode approach that will be used during facility operation and include a figure that depicts the turbines that will be operating in NRO mode and the associated dBA reduction level; and,
- d. For each noise-sensitive property where the certificate holder relies on a noise waiver to demonstrate compliance in accordance with OAR 340-035-0035(1)(b)(B)(iii)(III), a copy of the legally effective easement or real covenant pursuant to which the owner of the property authorizes the certificate holder's operation of the facility to increase ambient statistical noise levels L_{10} and L_{50} by more than 10 dBA at the appropriate measurement point. The legally effective easement or real covenant must: include a legal description of the burdened property (the noise sensitive property); be recorded in the real property records of the county; expressly benefit the property on which the wind energy facility is located; expressly run with the land and bind all future owners, lessees or holders of any interest in the burdened property; and not be subject to revocation without the certificate holder's written approval.

[Final Order on ASC, Noise Control Condition 2]

4.4 Construction (CON) Conditions

Condition Number	Construction (CON) Conditions
STANDARD: SOIL PROTECTION (SP) [OAR 345-022-0022]	
CON-SP-01	During construction, the certificate holder shall conduct all work in compliance with a final Erosion and Sediment Control Plan (ESCP) that is satisfactory to the Oregon Department of Environmental Quality as required under the National Pollutant Discharge Elimination System Construction Stormwater Discharge General Permit 1200-C. [Final Order on ASC, Soil Protection Condition 1]
CON-SP-02	During construction, the erosion and sediment control best management practices and measures as described in ASC Exhibit I, Section 5.2 and listed in the final order approving the site certificate shall be included and implemented as part of the final ESCP. [Final Order on ASC, Soil Protection Condition 2]
STANDARD: LAND USE (LU) [OAR 345-022-0030]	
CON-LU-01	During construction, the certificate holder shall comply with the following requirements: a. Construction vehicles shall use previously disturbed areas including existing roadways and tracks. b. Temporary construction yards and laydown areas shall be located within the future footprint of permanent structures to the extent practicable. c. New, permanent roadways will be the minimum width allowed while still being consistent with safe use and satisfying county road and safety standards. d. Underground communication and electrical lines will be buried within the area disturbed by temporary road widening to the extent practicable. [Final Order on ASC, Land Use Condition 8]
CON-LU-02	During construction, the certificate holder shall install smooth turbine tower structures and turbine nacelles that lack perching or nesting opportunities for birds. [Final Order on ASC, Land Use Condition 17]
CON-LU-03	During construction, the certificate holder shall install the electrical cable collector system underground, where practicable. In agricultural areas, the collector system lines must be installed at a depth of 3 feet or deeper as necessary to prevent adverse impacts on agriculture operations. In all other areas, the collector system lines must be installed a minimum of 3 feet where practicable. [Final Order on ASC, Land Use Condition 19]
STANDARD: FISH AND WILDLIFE HABITAT (FW) [OAR 345-022-0060]	
CON-FW-01	No construction shall occur in mule deer winter range during winter, defined as December 1 to March 31. Mule deer winter range is based on data to be provided by ODFW at the time of construction. [Final Order on ASC, Fish and Wildlife Habitat Condition 3]

CON-FW-02	<p>During construction within the time periods listed below, the certificate holder shall implement buffer zones around nest sites of the species listed below. No ground-disturbing activities within the buffer zone shall occur during the seasonal restrictions. The construction workforce and facility employees must be provided maps with the locations of the buffer zones and be instructed to avoid ground-disturbing activity within the buffer zone during construction activities.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 5]</p>
CON-FW-03	<p>During construction, the certificate holder shall employ a qualified environmental professional to provide environmental training to all personnel prior to working onsite, related to sensitive species present onsite, precautions to avoid injuring or destroying wildlife or sensitive wildlife habitat, exclusion areas, permit requirements and other environmental issues. All personnel shall be given clear maps showing areas that are off-limits for construction, and shall be prohibited from working outside of the areas in the site boundary that have been surveyed and approved for construction. The certificate holder shall instruct construction personnel to report any injured or dead wildlife detected while on the site to the appropriate onsite environmental manager. Records of completed training shall be maintained onsite and made available to the department upon request.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 7]</p>
CON-FW-04	<p>During construction, the certificate holder shall employ at a minimum one environmental inspector to be onsite daily. The environmental inspector shall oversee permit compliance and construction, and ensure that known sensitive environmental resources are protected. The environmental inspector shall prepare a weekly report during construction, documenting permit compliance and documenting any corrective actions taken. Reports shall be kept on file and available for inspection by the department upon request.</p> <p>[Final Order on ASC, Fish and Wildlife Habitat Condition 9]</p>
STANDARD: HISTORIC, CULTURAL, AND ARCHAEOLOGICAL RESOURCES (HC) [OAR 345-022-0090]	
CON-HC-01	<p>Immediately prior to construction activities, the certificate holder must flag or otherwise mark a 200-foot avoidance buffer around historic archaeological sites, as identified by the maps and drawings prepared in accordance with Historic, Cultural, and Archeological Resources Conditions 1 and 2. No disturbance is allowed within the buffer zones. For historic archaeological sites, an archeological monitor must be present if construction activities are required within 200-feet of sites identified as potentially eligible for listing on the National Register of Historic Places (NRHP). The certificate holder may use existing private roads within the buffer areas but may not widen or improve private roads within the buffer areas. The no-entry restriction does not apply to public road rights-of-way within buffer areas. Flagging or marking should be removed immediately upon cessation of activities in the area that pose a threat of disturbance to the site being protected.</p> <p>[Final Order on ASC, Historic, Cultural, and Archeological Resources Condition 3]</p>

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

CON-PS-05	During construction the certificate holder must maintain an area clear of vegetation for fire prevention around construction sites, including turbines and towers and any areas where work includes welding, cutting, grinding, or other flame- or spark-producing operations. [Final Order on ASC, Public Services Condition 17]
STANDARD: WASTE MINIMIZATION (WM) [OAR 345-022-0120]	
CON-WM-01	During construction, the certificate holder shall require construction contractors to complete the following for any off-site disposal of excess soil during construction activities: <ol style="list-style-type: none"> Obtain and provide the certificate holder with a signed consent agreement between contractor and the party receiving the earth materials authorizing the acceptance and disposal of the excess soil; and, Confirm that all disposal sites have been inspected and approved by the certificate holder's environmental personnel to ensure that sensitive environmental resources, such as wetlands or high quality habitats, would not be impacted. The certificate holder shall maintain copies of all signed consent agreements and disposal site inspection and approvals onsite and shall provide to the department in the 6-month construction report required pursuant to OAR 345-026-0080(1)(a). [Final Order on ASC, Waste Minimization Condition 1]
STANDARD: PUBLIC HEALTH AND SAFETY FOR WIND FACILITIES (WF) [OAR 345-024-0010]	
CON-WF-01	During construction, the certificate holder shall install pad-mounted step-up transformers at the base of each tower in steel boxes designed to protect the public from electrical hazards. [Final Order on ASC, Public Health and Safety Standards for Wind Facilities Condition 1]
CON-WF-02	During construction, the certificate holder shall install and maintain self-monitoring devices on each turbine, linked to sensors at the operations and maintenance building, connected to a fault annunciation panel or supervisory control and data acquisition (SCADA) system to alert operators to potentially dangerous conditions. The certificate holder shall maintain automatic equipment protection features in each turbine that would shut down the turbine and reduce the chance of a mechanical problem causing a fire. The certificate holder shall immediately remedy any dangerous conditions. [Final Order on ASC, Public Health and Safety Standards for Wind Facilities Condition 4]

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

CON-TL-01

During construction, the certificate holder shall take reasonable steps to reduce or manage human exposure to electromagnetic fields, including:

- a. Constructing all aboveground collector and transmission lines at least 200 feet from any residence or other occupied structure, measured from the centerline of the transmission line.
 - b. Constructing all aboveground 34.5-kV transmission lines with a minimum clearance of 25 feet from the ground.
 - c. Constructing all aboveground 230-kV transmission lines with a minimum clearance of 30 feet from the ground.
 - d. Developing and implementing a program that provides reasonable assurance that all fences, gates, cattle guards, trailers, irrigation systems, or other objects or structures of a permanent nature that could become inadvertently charged with electricity are grounded or bonded throughout the life of the line (OAR 345-027-0023(4)).
 - e. Providing to landowners a map of underground and overhead transmission lines on their property and advising landowners of possible health and safety risks from induced currents caused by electric and magnetic fields.
 - f. Designing and maintaining all transmission lines so that alternating current electric fields do not exceed 9 kV per meter at one meter above the ground surface in areas accessible to the public.
 - g. Increasing the intraconnection transmission line height, shielding the electric field, or installing access barriers, if needed, to prevent induced current and nuisance shock of mobile vehicles.
 - h. Designing and maintaining all transmission lines so that induced voltages during operation are as low as reasonably achievable.
 - i. Designing, constructing and operating the transmission line in accordance with the requirements of the 2012 Edition of the National Electrical Safety Code approved on June 3, 2011 by the American National Standards Institute (OAR 345-027-0023(4)).
 - j. Implement a safety protocol to ensure adherence to NESC grounding requirements
- [Final Order on ASC, Siting Standard Condition 1]

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

CON-NC-01	<p>During construction, to reduce construction noise impacts at nearby residences, the certificate holder shall:</p> <ol style="list-style-type: none"> Establish and enforce construction site and access road speed limits; Utilize electrically-powered equipment instead of pneumatic or internal combustion powered equipment, where feasible; Locate material stockpiles and mobile equipment staging, parking, and maintenance areas as far as practicable away from noise sensitive properties; Utilize noise-producing signals, including horns, whistles, alarms, and bells for safety warning purposes only; Equip all noise-producing construction equipment and vehicles using internal combustion engines with mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed “package” equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment; and, Establish a noise complaint response system. All construction noise complaints will be logged within 48 hours of issuance. The construction supervisor shall have the responsibility and authority to receive and resolve noise complaints. A clear appeal process to the owner shall be established prior to the start of construction that will allow for resolution of noise problems that cannot be resolved by the site supervisor in a reasonable period of time. Records of noise complaints during construction must be made available to authorized representatives of the department upon request. <p>[Final Order on ASC, Noise Control Condition 1]</p>
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4.5 Pre-Operational (PRO) Conditions

Condition Number	Pre-Operational (PRO) Conditions
STANDARD: SOIL PROTECTION (SP) [OAR 345-022-0022]	
PRO-SP-01	<p>Prior to beginning facility operation, the certificate holder shall provide the department a copy of a DEQ-approved operational SPCC plan, if determined to be required by DEQ. If an SPCC plan is not required by DEQ, the certificate holder shall prepare and submit to the department for review and approval an operational Spill Prevention and Management plan. The Spill Prevention and Management Plan shall include at a minimum the following procedures and BMPs:</p> <ul style="list-style-type: none"> • Procedures for oil and hazardous material emergency response consistent with OAR 340, Division 142 • Procedures demonstrating compliance with all applicable local, state, and federal environmental laws and regulations for handling hazardous materials used onsite in a manner that protects public health, safety, and the environment • Current inventory (type and quantity) of all hazardous materials stored onsite, specifying the amounts at each O&M building • Restriction limiting onsite storage of diesel fuel or gasoline • Requirement to store lubricating and dielectric oils in quantities equal to or greater than 55-gallons in qualified oil-filled equipment • Preventative measures and procedures to avoid spills <ul style="list-style-type: none"> ○ Procedures for chemical storage ○ Procedures for chemical transfer ○ Procedures for chemical transportation ○ Procedures for fueling and maintenance of equipment and vehicles ○ Employee training and education • Clean-up and response procedures, in case of an accidental spill or release • Proper storage procedures <p>Reporting procedures in case of an accidental spill or release [Final Order on ASC, Soil Protection Condition 5]</p>
STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0110]	
PRO-PS-01	<p>Prior to operation of the facility, the certificate holder shall ensure that operations personnel are trained and equipped for fall protection and tower rescue, including high angle and confined space rescue. Refresher training in high angle and confined space rescue must be provided to operations personnel on an annual basis throughout the operational life of the facility. The certificate holder must retain records of the training and provide them to the department upon request. [Final Order on ASC, Public Services Condition 15]</p>
PRO-PS-02	<p>Before beginning operation of the facility, the certificate holder must provide a final site plan to the identified fire protection districts and first-responders included in the Emergency Management Plan. The certificate holder must indicate on the site plan the identification number assigned to each turbine and the actual location of all facility structures. The certificate holder shall provide an updated site plan if additional turbines or other structures are later added to the facility. [Final Order on ASC, Public Services Condition 19]</p>

PRO-PS-03	<p>Prior to operation, the certificate holder must ensure that operations personnel remain current in their first aid/CPR/AED certifications throughout the operational life of the facility. The certificate holder must retain records of the certifications and provide them to the department upon request. The certificate holder shall also ensure that an AED is available onsite at all times that operations and maintenance personnel are at the facility.</p> <p>[Final Order on ASC, Public Services Condition 22</p>
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4.6 Operational (OPR) Conditions

Condition Number	Operational (OPR) Conditions
STANDARD: GENERAL STANDARD OF REVIEW (GS) [OAR 345-022-0000]	
OPR-GS-01	<p>The certificate holder shall submit a legal description of the site to the Oregon Department of Energy within 90 days after beginning operation of the facility. The legal description required by this rule means a description of metes and bounds or a description of the site by reference to a map and geographic data that clearly and specifically identify the outer boundaries that contain all parts of the facility.</p> <p>[Final Order on ASC, Mandatory Condition 1 [OAR 345-027-0020(2)]]</p>
STANDARD: SOIL PROTECTION (SP) [OAR 345-022-0022]	
OPR-SP-01	<p>During facility operation, the certificate holder shall:</p> <ol style="list-style-type: none"> Routinely inspect and maintain all facility components including roads, pads, and other facility components and, as necessary, maintain or repair erosion and sediment control measures and reduce potential facility contribution to erosion. Restrict vehicles to constructed access roads, and ensure material laydown or other maintenance activities occur within graveled areas or within the maintenance area of the O&M buildings to avoid unnecessary compaction, erosion, or spill risk to the area surrounding the facility. If in order to serve the operational needs of the energy facility, or related and supporting facilities, the certificate holder intends to substantially modify an existing road or construct a new road, the certificate holder must submit and receive Council approval of an amendment to the site certificate prior to the modification or construction. <p>[Final Order on ASC, Soil Protection Condition 6]</p>
STANDARD: LAND USE (LU) [OAR 345-022-0030]	
OPR-LU-01	<p>Within one month of commencement of commercial operation, the certificate holder shall submit an as-built survey for each construction phase that demonstrates compliance with the setback requirements in Land Use Condition 1 to the department and Morrow County.</p> <p>[Final Order on ASC, Land Use Condition 2]</p>
OPR-LU-02	<p>During operation of the facility, the certificate holder shall restore areas that are temporarily disturbed during facility maintenance or repair activities using the same methods and monitoring procedures described in the final Revegetation Plan referenced in Fish and Wildlife Condition 11.</p> <p>[Final Order on ASC, Land Use Condition 10]</p>
OPR-LU-03	<p>Before beginning decommissioning activities, the certificate holder must provide a copy of the final retirement plan to Morrow County and Umatilla County.</p> <p>[Final Order on ASC, Land Use Condition 23]</p>
OPR-LU-04	<p>Before beginning electrical production, the certificate holder shall prepare an Operating and Facility Maintenance Plan (Plan) and submit the Plan to the department for approval in consultation with Umatilla and Morrow Counties.</p> <p>[Final Order on ASC, Land Use Condition 25]</p>

OPR-LU-05	Within 90 days of the commencement of electrical service from Wheatridge East, the certificate holder shall provide a summary of as-built changes to the department and Umatilla County. [Final Order on ASC, Land Use Condition 26]
OPR-LU-06	<p>Prior to facility retirement, the certificate holder must include the following minimum restoration activities in the proposed final retirement plan it submits to the Council pursuant to OAR 345-027-0110 or its equivalent:</p> <ol style="list-style-type: none"> 1. Dismantle turbines, towers, pad mounted transformers, meteorological towers and related aboveground equipment, and remove concrete pads to a depth of at least three feet below the surface grade. 2. Remove underground collection and communication cables that are buried less than three feet in depth and are deemed by Council to be a hazard or a source of interference with surface resource uses. 3. Remove gravel from areas surrounding turbine pads. 4. Remove and restore private access roads unless the landowners directs otherwise. 5. Following removal of facility components, grade disturbed areas as close as reasonably possible to the original contours and restore soils to a condition compatible with farm uses or other resources uses. 6. Revegetate disturbed areas in consultation with the land owner and in a manner consistent with the final Revegetation Plan referenced in Fish and Wildlife Condition 11. 7. If the landowner wishes to retain certain facilities, provide a letter from the land owner that identifies the roads, cleared pads, fences, gates and other improvements to be retained and a commitment from the land owner to maintain the identified facilities for farm or other purposes permitted under the applicable zone. <p>[Final Order on ASC, Land Use Condition 27]</p>
STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0110]	
OPR-PS-01	<p>During operation of the facility, the certificate holder shall discharge sanitary wastewater generated at the O&M buildings to licensed on-site septic systems in compliance with State permit requirements. The certificate holder shall design each septic system for a discharge capacity of less than 2,500 gallons per day.</p> <p>[Final Order on ASC, Public Services Condition 1]</p>
OPR-PS-02	<p>Except as provided in this condition, during facility operation, the certificate holder shall obtain water for on-site uses from on-site wells located near the O&M buildings. The certificate holder shall construct on-site wells subject to compliance with the provisions of ORS 537.765 relating to keeping a well log. The certificate holder shall not use more than 5,000 gallons of water per day from each of the two on-site wells. The certificate holder may obtain water from other sources for on-site uses subject to prior approval by the Department.</p> <p>[Final Order on ASC, Public Services Condition 2]</p>

OPR-PS-03	<p>During operation, the certificate holder shall implement a waste management plan that includes but is not limited to the following measures:</p> <ul style="list-style-type: none"> a. Training employees to minimize and recycle solid waste. b. Recycling paper products, metals, glass, and plastics. c. Recycling used oil and hydraulic fluid. d. Collecting non-recyclable waste for transport to a local landfill by a licensed waste hauler or by using facility equipment and personnel to haul the waste. Waste hauling by facility personnel within Morrow County shall be performed in compliance with the Morrow County Solid Waste Management Ordinance, which requires that all loads be covered and secured. e. Segregating all hazardous and universal, non-recyclable wastes such as used oil, oily rags and oil-absorbent materials, mercury-containing lights and lead-acid and nickel-cadmium batteries for disposal by a licensed firm specializing in the proper recycling or disposal of hazardous and universal wastes. <p>[Final Order on ASC, Public Services Condition 4]</p>
OPR-PS-04	<p>During operation, the certificate holder shall ensure that appropriate law enforcement agency personnel have an up-to-date list of the names and telephone numbers of facility personnel available to respond on a 24-hour basis in case of an emergency at the facility site.</p> <p>[Final Order on ASC, Public Services Condition 12]</p>
STANDARD: PUBLIC HEALTH AND SAFETY FOR WIND FACILITIES (WF) [OAR 345-024-0010]	
OPR-WF-01	<p>During operation, the certificate holder shall ensure each facility substation is enclosed with appropriate fencing and locked gates to protect the public from electrical hazards.</p> <p>[Final Order on ASC, Public Health and Safety Standards for Wind Facilities Condition 2]</p>

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

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

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

4.7 Retirement Conditions (RET)

Condition Number	Retirement (RET) Conditions
STANDARD: RETIREMENT AND FINANCIAL ASSURANCE (RT) [OAR 345-022-0050]	
RET-RF-01	<p>The certificate holder must retire the facility in accordance with a retirement plan approved by the Council if the certificate holder permanently ceases construction or operation of the facility. The retirement plan must describe the activities necessary to restore the site to a useful, nonhazardous condition, as described in OAR 345-027-0110(5). After Council approval of the plan, the certificate holder must obtain the necessary authorization from the appropriate regulatory agencies to proceed with restoration of the site.</p> <p>[Final Order Retirement and Financial Assurance Condition 2] [Mandatory Condition OAR 345-027-0020(9)]</p>
RET-RF-02	<p>The certificate holder is obligated to retire the facility upon permanent cessation of construction or operation. If the Council finds that the certificate holder has permanently ceased construction or operation of the facility without retiring the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110, the Council must notify the certificate holder and request that the certificate holder submit a proposed final retirement plan to the department within a reasonable time not to exceed 90 days. If the certificate holder does not submit a proposed final retirement plan by the specified date, the Council may direct the department to prepare a proposed final retirement plan for the Council's approval.</p> <p>Upon the Council's approval of the final retirement plan, the Council may draw on the bond or letter of credit described in OAR 345-027-0020(8) to restore the site to a useful, nonhazardous condition according to the final retirement plan, in addition to any penalties the Council may impose under OAR Chapter 345, Division 29. If the amount of the bond or letter of credit is insufficient to pay the actual cost of retirement, the certificate holder must pay any additional cost necessary to restore the site to a useful, nonhazardous condition. After completion of site restoration, the Council must issue an order to terminate the site certificate if the Council finds that the facility has been retired according to the approved final retirement plan.</p> <p>[Final Order Retirement and Financial Assurance Condition 3] [Mandatory Condition OAR 345-027-0020(16)]</p>

5.0 Successors and Assigns

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

6.0 Severability and Construction

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

7.0 Execution

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

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

ENERGY FACILITY SITING COUNCIL

By: 

Barry Beyeler, Chair

Oregon Energy Facility Siting Council

Date: APRIL 28, 2017

WHEATRIDGE WIND ENERGY, LLC

By: 

~~Andrew O'Connell, President~~

Vice President on behalf of
Wheatridge Wind Energy, LLC

Date: 5/24/2017

Attachment A
Facility Site Boundary Map
(ASC Exhibit C, Figure C-2)

P:\GIS_PROJECTS\Wheatridge_Wind_Energy_LLC\Wheatridge\MXD\IPASCIexCWWE_Wheatridge_PASC_Fig_C02_FacilityLocation_11171_20141110.mxd - Last Saved 11/10/2014

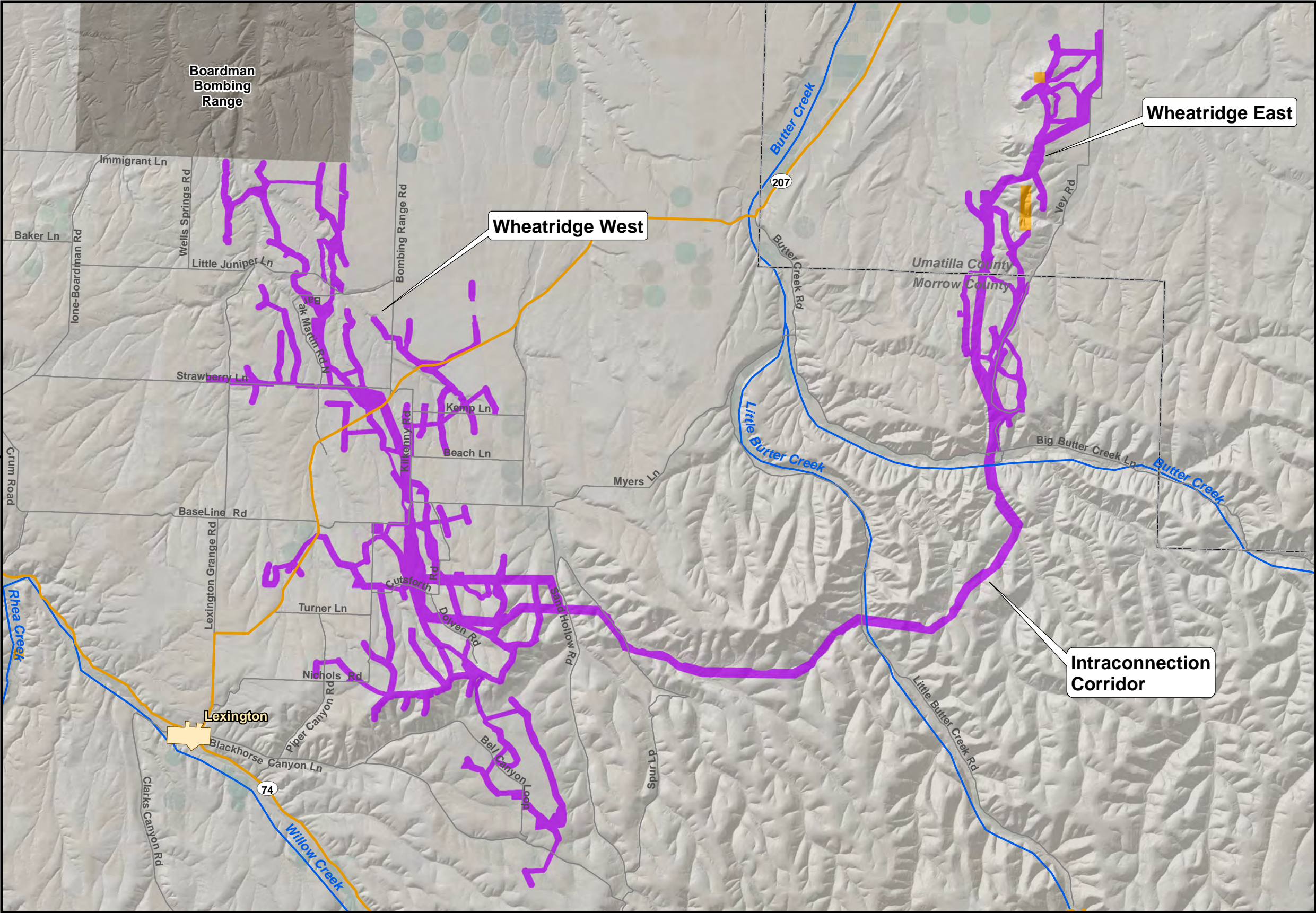



Figure C-2
Wheatridge Wind Energy Facility
Facility Location



Morrow and Umatilla Counties, OR
December 2014

- Site Boundary
- County Boundary
- City/Town
- State Highway
- Local Road
- River/Stream
- Land Ownership
 - Bureau of Land Management
 - Private
 - Dept. of Defense

1:135,000 WGS84 UTM 11

0 1 2 4 6 8 10 12 14 16 18 20 Miles

Data Sources Wheatridge Wind Energy: site boundary / ESRI: roads, cities, political boundaries, hydrography / Oregon BLM: land ownership / USDA NAIP: aerial imagery

BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON

Docket PCN 5

In the Matter of

IDAHO POWER COMPANY'S
PETITION FOR CERTIFICATE OF PUBLIC CONVENIENCE
AND NECESSITY

Surrebuttal Testimony of Mitch Colburn

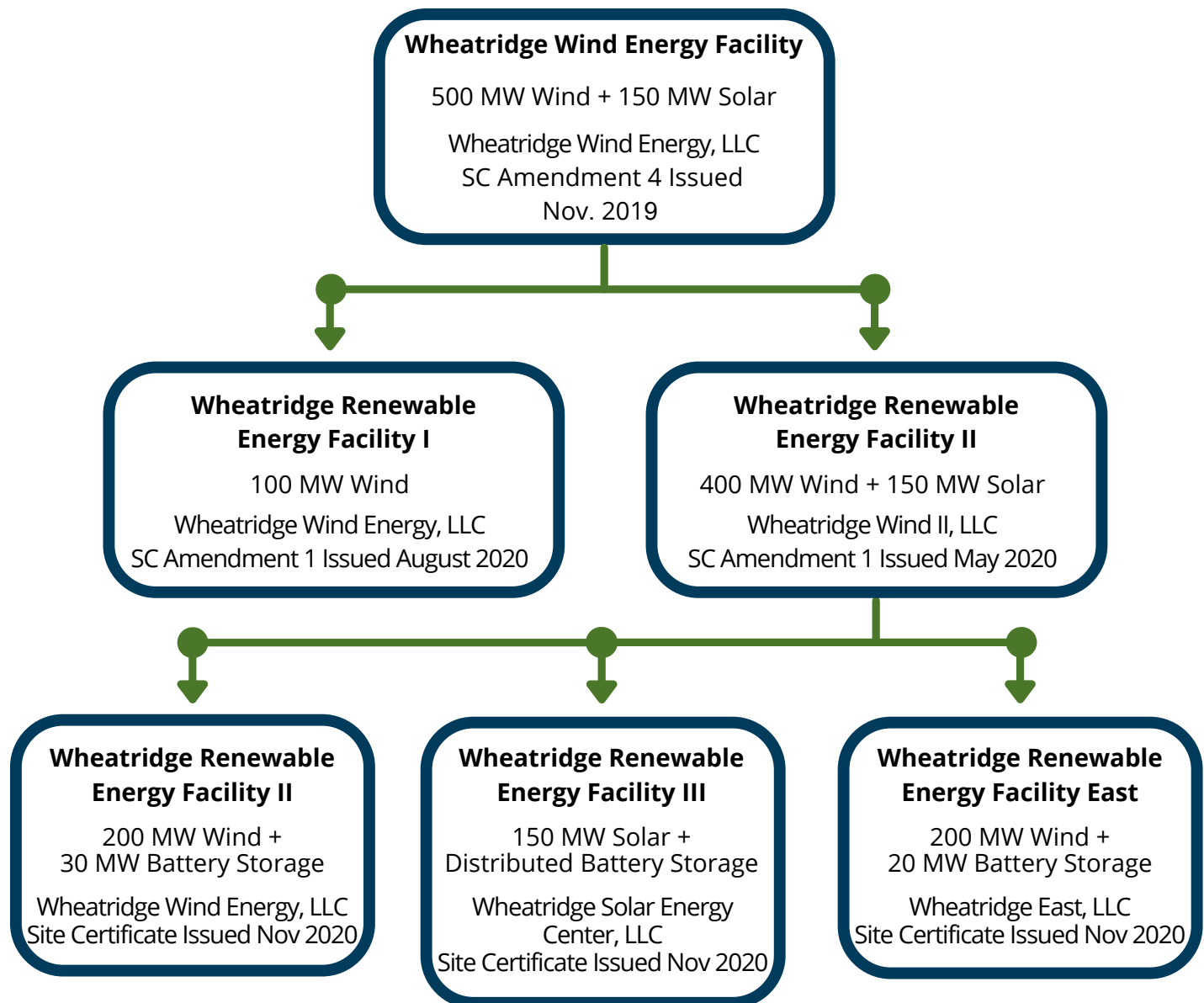
Exhibit 1802

ODOE Diagram re Wheatridge Site Certificate History

April 7, 2023

Wheatridge Wind Energy Facility

Site Certificate History



BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON

Docket PCN 5

In the Matter of

IDAHO POWER COMPANY'S
PETITION FOR CERTIFICATE OF PUBLIC CONVENIENCE
AND NECESSITY

Surrebuttal Testimony of Mitch Colburn

Exhibit 1803

George Plaven, Green Energy Corridor,
Eastern Oregonian News Article
(May 18, 2017)

April 7, 2023

https://www.eastoregonian.com/news/local/green-corridor/article_b96e3086-867c-5fbe-9a6e-282e77a4ff43.html

Green corridor

George Plaven
May 18, 2017

1 of 3



Morrow County is considering Bombing Range Road as a green energy corridor, where multiple renewable energy facilities could connect to the grid via a single transmission line.

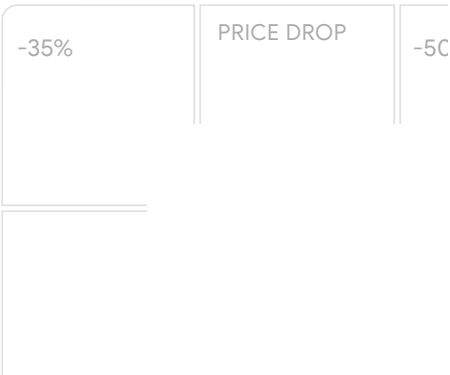
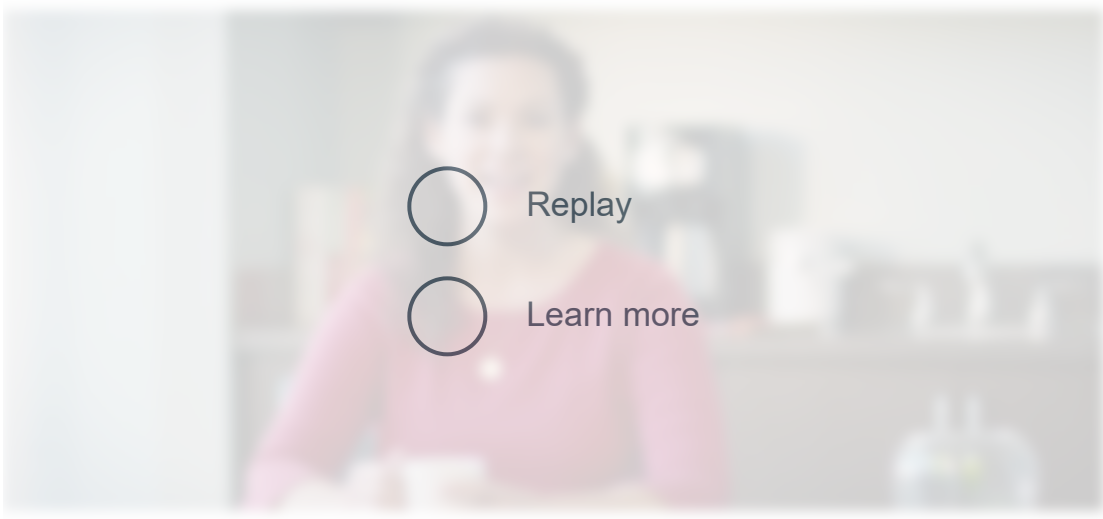
Staff photo by E.J. Harris

As more wind and solar projects take shape in Eastern Oregon, the Umatilla Basin finds itself caught between interests.

On the one hand, Oregon utilities must provide an increasing amount of energy from renewable sources, and green energy developers are eager to build around the region. Farmers, however, worry about a mess of transmission lines criss-crossing their property to connect to the power grid, cutting over fields and taking valuable land out of production.

The conflict is so great that Gov. Kate Brown established an advisory committee in October 2015 to brainstorm possible solutions. After more than a year of meetings, the committee issued its final report in February, taking stock of local agriculture and energy needs.

ADVERTISING



Morrow County officials also asked to work with the state Department of Land Conservation and Development on a pilot project that, if successful, would allow multiple renewable energy facilities to combine into a single large transmission corridor — eliminating the veritable —

spiderweb of power lines that would be required to connect each individual project.

In a letter dated March 30, Gov. Brown expressed support for the project and directed the department to work with Morrow County on crafting temporary rules later this year. Carla McLane, Morrow County planning director, said there are no concrete plans in place, but the advisory committee was critical to lay the groundwork and create goodwill.

“We are at the point where we have this (report), thanks to the governor’s office,” McLane said. “I think the hard work is yet to happen.”

The committee included representatives of farms and utilities, officials from Umatilla, Morrow and Gilliam Counties, as well as state Sen. Bill Hansell (R-Athena) and Rep. Greg Smith (R-Heppner). Hansell said he was pleased with how the parties all came together, and said the Morrow County corridor has a lot to offer the region.

“It’s a solution I think we ought to implement,” he said.

The final report recognizes that agriculture remains the primary economic driver in the basin, especially irrigated farms. Without irrigation, dryland wheat typically yields a value of \$100 per acre. But add just one acre-foot of water and that value rises to \$500 per acre.

At three acre-feet of water, farmers can grow high-value vegetables such as potatoes, carrots and onions at a value of \$5,000 per acre. But accessing that water is not easy. Pumping irrigation water from the Columbia River is not profitable to elevations more than 1,000 feet above the McNary and John Day pools, which limits the land base for high-value crops.



-35%

PRI

That's why growers say it is so crucial to protect this bank of farmland. Kent Madison, of Madison Ranches in Echo, said transmission lines impede regular farming and irrigation practices, such as aerial spraying of fertilizer and chemicals.

Madison said he supports a single green energy transmission corridor in order to minimize the impact from wind and solar farms on surrounding agricultural land.

"It's a whole lot better to have this corridor with one big transmission line through it than four small corridors over a 10-mile area, with four or five transmission lines," he said. "We need to protect the high-value agricultural ground."

Though McLane said the corridor project is still in its conceptual phase, she imagines it would run along Bombing Range Road connecting wind and solar developments at the south end of the county to electrical substations at the north end.

But there are a number of hurdles to clear first.

The county is still awaiting the final record of decision from the Bureau of Land Management and U.S. Navy on routing a portion of the Boardman to Hemingway transmission line on the west side of Bombing Range Road — part of the Navy's Boardman Bombing Range — as opposed to the east side. Stephanie McCurdy, a spokeswoman for B2H developer Idaho Power, said those decisions are expected within a matter of months.

If all goes according to plan, then McLane said it may be possible for the local Umatilla Electric Cooperative to upgrade its transmission system on the other side of Bombing Range Road to accommodate the green energy corridor. She figures it would take a 230-kilovolt line to handle the anticipated capacity of proposed new wind and solar developments.



-44%

-47%

“We’re not done,” McLane said. “B2H is a big piece of the puzzle.”

UEC is already exploring building the line, which would initially hook up to the new 500-megawatt Wheatridge Wind Energy facility that was issued a site certificate in April. Wheatridge is approved for 292 turbines near Heppner, with a portion of the project extending into southern Umatilla County.

Robert Echenrode, UEC general manager, said one large corridor would be a more strategic effort to plug renewable energy projects onto the grid, as opposed to landowners being inundated with requests for power lines.

“We listened to the landowners in this corridor area, and I believe we were successful in finding common ground,” Echenrode said.

Tamra Mabbott, Umatilla County planning director, said they will be watching Morrow County closely to see if the green corridor model can be a success.

“Certainly, we’re looking for a win-win and that’s what we hope Morrow County will come up with,” Mabbott said.

When the state went all-in on renewable energy, McLane said nobody thought about the consequences for Oregon farms. But a green energy corridor might just be the answer to Morrow County keeping their agricultural base whole.

“For rural counties, (renewable energy) does bring an economic benefit. But how do we protect these other things that are important?” McLane asked. “It would be nice if the local jurisdiction could be the balancing authority for that.”

— — —

Contact George Plaven at gplaven@eastoregonian.com or 541-966-0825.

BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON

Docket PCN 5

In the Matter of

IDAHO POWER COMPANY'S
PETITION FOR CERTIFICATE OF PUBLIC CONVENIENCE
AND NECESSITY

Surrebuttal Testimony of Mitch Colburn

Exhibit 1804

Letters of Support for West of Bombing Range Road Alternative

April 7, 2023

July 10, 2015

Captain Michael Nortier
Commanding Officer
Naval Air Station Whidbey Island, Washington
3730 North Charles Porter Avenue
Oak Harbor, Washington 98278-5000

Tamara Gertsch, National Project Manager
Don Gonzalez, District Manager
Bureau of Land Management
P.O. Box 655
Vale, Oregon 97918

RE: Support for Navy Easement and West of Bombing Range Road Route Variation
Boardman to Hemingway Transmission Line Project

Dear Captain Nortier and Ms. Gertsch:

The Boardman to Hemingway transmission line project (B2H Project) is proposing to connect to the proposed Longhorn Station near Boardman, Oregon. The Draft Environmental Impact Statement (EIS) for the B2H Project considered two alternative routes that terminated at the Longhorn Station. In its comments on the Draft EIS, Idaho Power requested the Bureau of Land Management (BLM) to consider in the forthcoming Final EIS a third route leading to the Longhorn Station—i.e., the West of Bombing Range Road Route Variation, which would run along the west side of Bombing Range Road and on the Naval Weapons Systems Training Facility (NWSTF) Boardman property subject to an easement from the Navy.

The entities signing this letter are writing to support the West of Bombing Range Road Route Variation in the B2H Project's National Environmental Policy Act process and Idaho Power's application for an easement from the Navy. The entities have worked collaboratively to identify the following actions to facilitate the West of Bombing Range Road Route Variation and to address certain stakeholder concerns regarding future transmission development along Bombing Range Road:

- Bonneville Power Administration (BPA) owns and operates, pursuant to a use agreement with the Navy, a 69-kV transmission line on the NWSTF Boardman property along the west side of Bombing Range Road. BPA would cooperate with Idaho Power to provide for the removal of the 69-kV line and the construction of the B2H Project in place of the 69-kV line.
- Idaho Power will pursue an easement from the Navy to construct the West of Bombing Range Road Route Variation on the NWSTF. Idaho Power's easement will have the same location and width as BPA's existing use

agreement for the 69-kV line. The B2H Project towers will be no taller than 100 feet, as requested by the Navy, to avoid interfering with military operations.¹

- Umatilla Electric Cooperative (UEC) owns and operates a 115-kV transmission line on private property on the east side of Bombing Range Road. UEC will cooperate with BPA to help BPA continue to provide electrical service to its customers served by the displaced 69-kV transmission line. For example, UEC might consider replacing its 115-kV transmission line with double-hung structures carrying both the 115-kV line and BPA's 69-kV line. As a second possible option, UEC might replace the 115-kV line with a 230-kV line and provide BPA with an opportunity to construct a step-down substation off of the NWSTF property providing service to BPA's 69-kV transmission line customers. A double-hung structure would likely require overhang easements from private landowners and possibly the Navy. UEC believes it would have no direct impact on existing irrigation pivots.
- For existing and future scenarios along the east side of Bombing Range Road, Idaho Power and UEC believe that they can operate each party's respective facilities without impairment. Further, for any construction along the east side of Bombing Range Road, UEC will utilize existing centerlines as a basis for any newly constructed transmission and distribution facilities, which UEC believes an easement of 80 to 100 feet shall accommodate the intentions to ensure non-impairment to reasonable farm operations. UEC's design of a proposed 230-kV line shall accommodate up to 2,500 MW of capacity.

The signing entities believe that the West of Bombing Range Road Route Variation and the related actions discussed above represent the most preferred approach for providing a route to the Longhorn Station, because it would:

- Maintain the status quo with respect to the transmission line footprint on the NWSTF property on the west side of Bombing Range Road, avoiding or minimizing new impacts to military operations;
- Avoid or minimize airspace conflicts by complying with the Navy's requested 100-foot height restriction for transmission lines along Bombing Range Road;
- Avoid or minimize possible new impacts to agriculture (including economic impacts) and military operations related to the proposed Longhorn Variation route, which was considered in the Draft EIS, along the east side of Bombing Range Road;
- Increase the transmission capacity of the Bombing Range Road corridor by

¹ In order to meet the specific requirements of the Navy, Idaho Power will design a unique tower structure to be installed on the NWSTF Boardman property. The structure will not be implemented elsewhere on the B2H Project due to constructability, reliability, maintenance, and impact limitations.

over 25 times its existing capacity while maintaining the same number of transmission rights of way; and

- Accommodate renewable energy development in the area and eliminate, or at least considerably delay, the need for additional lines.

In summary, this collaborative proposal maximizes the use of existing easements and land uses. Most importantly, the route avoids or greatly minimizes additional impacts to Navy operations and irrigated farm land including tree-farming operations.

All signatories are committed to work together to minimize impacts and further refine our joint efforts. Thank you for the opportunity to comment on this nationally- and regionally-important project.

Please direct any questions or responses regarding the compromise for Idaho Power to Mitch Colburn at (208) 388-5546 or MColburn@idahopower.com, or for UEC to Robert Echenrode at (541) 564-4348 or Robert.Echenrode@umatillaelectric.com.

Signing Parties:

Margi Hoffman
Energy Policy Advisor
Oregon Governor's Office

John Chatburn
Administrator
Idaho Governor's Office of Energy
Resources

Gary Neal
General Manager
Port of Morrow

M. Steven Eldridge
General Manager and CEO
Umatilla Electric Cooperative

Thomas Wolff
General Manager
Columbia Basin Electric Cooperative

R. Patrick Reiten
President and CEO, PacifiCorp Transmission

Darryll Olsen, Ph.D.
Board Representative
Columbia-Snake River Irrigators Association

Jim McClelland
Pasco Farming, Inc.

Jerry Reitman
CEO/Manager
Wheatridge Wind Energy, LLC
2Morrow Energy
Ella Wind Development

Vern Porter
Senior Vice President
Idaho Power Company

Don Rice
Greenwood Resources

Bob Levy
Windy River Farms

Craig Reeder
Hale Farms

Bill Frisbie
Gladstone Land Corp.

Terry K. Tallman, Judge
Leann Rea, Commissioner
Don Russell, Commissioner
Morrow County Court

Karen Pettigrew
City Manager
City of Boardman, Oregon

RON WYDEN
OREGON

CHAIRMAN OF COMMITTEE ON
FINANCE

221 DIRKSEN SENATE OFFICE BUILDING
WASHINGTON, DC 20510
(202) 224-5244

United States Senate
WASHINGTON, DC 20510-3703

October 16, 2014

COMMITTEES:

COMMITTEE ON FINANCE
COMMITTEE ON BUDGET
COMMITTEE ON ENERGY & NATURAL RESOURCES
SELECT COMMITTEE ON INTELLIGENCE
JOINT COMMITTEE ON TAXATION

Sally Jewell, Secretary
U.S. Department of Interior
1849 C Street, NW
Washington DC, 20240

Dear Honorable Secretary Jewell:

I am writing on behalf of my constituents who have expressed great concern about the proposed siting and development of several new high-voltage transmission lines, related substations and other facilities, through Oregon's Morrow and Umatilla Counties. They are concerned that the Department is moving forward with a project without regard to potential impact on some of Oregon's most productive agricultural operations and farmland, and negative impacts to the City of Boardman.

I understand the Bureau of Land Management (BLM) is planning to soon release a Draft Environmental Impact Statement (DEIS) on the Boardman to Hemingway Transmission Line Project. Local farmers and ranchers, the two counties, and other regional stakeholders have encouraged BLM to include in the DEIS a safer, potentially less expensive, alternative known as the "West of the Bombing Range" route. While this route is supported by many of my constituents, it is unclear as to whether the BLM intends to include this route as an additional alternative.

The community's understanding of the current alternatives have raised concerns about potential social and economic risks to these communities. As an example, farmers that live near the proposed "Longhorn Substation" indicate that the Substation would be built on some of Eastern Oregon's highest value agricultural acreage. If the substation becomes a 'hub' for other energy development to connect to the grid, the high voltage transmission lines and infrastructure building could eliminate some of Oregon's valuable irrigated farm land. Land would have to be removed from production, and aerial seeding applications would become difficult and more expensive.

Community leaders from Umatilla and Morrow counties have been meeting regularly to consider the options and to develop solutions that support agriculture and renewable energy near the historic Boardman Bombing Range. The community has asked, and I support, that the BLM allow full consideration and study of routes that meet these community needs.

Page 1 of 2

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PORTLAND, OR 97232
(503) 326-7525

405 EAST 8TH AVE
SUITE 2020
EUGENE, OR 97401
(541) 431-0229

SAC ANNEX BUILDING
105 FIR ST
SUITE 201
LA GRANDE, OR 97850
(541) 962-7691

U.S. COURTHOUSE
310 WEST 6TH ST
ROOM 118
MEDFORD, OR 97501
(541) 858-5122

THE JAMISON BUILDING
131 NW HAWTHORNE AVE
SUITE 107
BEND, OR 97701
(541) 330-9142

707 13TH ST, SE
SUITE 285
SALEM, OR 97301
(503) 589-4555

[HTTP://WYDEN.SENATE.GOV](http://wyden.senate.gov)

PRINTED ON RECYCLED PAPER

I ask that you ensure that the proposal of the area West of the Bombing Range be fully considered in the DEIS and that you consider the needs of the community as you move forward with your final decision. Please do not hesitate to contact me if you have questions about this project.

Sincerely,

A handwritten signature in blue ink that reads "Ron Wyden". The signature is fluid and cursive, with the first name "Ron" and last name "Wyden" clearly distinguishable.

Ron Wyden,
United States Senator

GREG WALDEN
SECOND DISTRICT, OREGON

ENERGY AND COMMERCE

SUBCOMMITTEES:
COMMUNICATIONS AND TECHNOLOGY
CHAIRMAN

E-MAIL VIA WEBSITE:
<http://walden.house.gov>



Congress of the United States
House of Representatives

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TELEPHONE: (541) 389-4408

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LA GRANDE, OR 97850
TELEPHONE: (541) 624-2400

October 16, 2015

The Honorable Ray Mabus
Secretary of the U.S. Navy
1000 Navy Pentagon, Room 4D652
Washington, DC 20350

Mr. Neil Kornze
Director of the Bureau of Land Management
1849 C Street NW, Rm. 5665
Washington DC 20240

Dear Secretary Mabus and Director Kornze,

In Boardman, Oregon, local landowners and Morrow County have worked with the Navy, local utilities and other entities to develop an alternative routing for Idaho Power Company's Boardman to Hemingway (B2H) transmission line to minimize impacts on neighboring high value agriculture lands and the training operations at Naval Weapons Systems Training Facility (NWSTF) Boardman. I appreciate the Navy's preliminary support of this local effort, and urge your agencies to act promptly and transparently with the local community to complete the assessments needed to finalize this easement application.

As you know, Bonneville Power Administration (BPA) holds an existing easement on the eastern edge of NWSTF Boardman, west of Bombing Range Road. Under the proposal, BPA would move to co-locate their lines on improved towers on private land east of Bombing Range Road, where lines from Umatilla Electric Cooperative currently run. Idaho Power would place the B2H line on towers within BPA's existing easement with the Navy. To avoid interference with the Navy's training mission, it is my understanding all towers within this easement would meet height requirements.

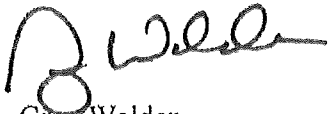
I appreciate the Navy's efforts in recent years to improve its relationship with its neighbors in Morrow County. With approximately 4,000 acres of irrigated agricultural lands potentially impacted by other routes for this transmission line, this proposal presents an opportunity for the Navy to build that relationship further and help mitigate impacts on the local economy. I've heard the local community express strong support for the Navy's important training mission at

The Honorable Ray Mabus
Secretary of the U.S. Navy
October 16, 2015
Page 2

NWSTF Boardman. This local proposal was developed with that in mind, promoting a balance that ensures continued success of both the mission and the local economy.

With the community making a good faith effort to preserve the Navy's mission at NWSTF Boardman, I urge your agencies to continue the cooperative engagement with the community to support this effort and to work expeditiously towards a final decision on this proposal.

Best regards,

A handwritten signature in black ink, appearing to read "Greg Walden". The signature is fluid and cursive, with a large initial "G" and a long horizontal stroke at the end.

Greg Walden
Member of Congress

BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON

Docket PCN 5

In the Matter of

IDAHO POWER COMPANY'S
PETITION FOR CERTIFICATE OF PUBLIC CONVENIENCE
AND NECESSITY

Surrebuttal Testimony of Mitch Colburn

Exhibit 1805

Letter from the Glass Hill Coalition
(May 6, 2019)

April 7, 2023

May 6, 2019

City of La Grande City Council
1000 Adams Avenue
La Grande, Oregon 97850

RE: "City of La Grande Proclamation, Declaring and Clarifying Opposition to the Boardman to Hemmingway Power Line Project"

Attention: Mayor and City Council:

The Glass Hill Coalition was surprised and disheartened to become aware of the City's issuance of the referenced proclamation in which the appearance is that a select special interest group, ie Stop B2H, has successfully influenced another political group on the location of the pending B2H transmission line outside of due process. Coalition members have been involved with the B2H siting process since 2008 and we have seen the ongoing inappropriate political influence on the line routing decisions by the dissemination of false and misleading information from many special interest groups. It should be clear to you by now that members of the Stop B2H group and now evidently some of the current City Council members, appear to be primarily driven by the 'not in my backyard' mentality. The Stop B2H group which is partially led by a home owner located near Morgan Lake who finds it OK for them and others to build homes and develop the rural landscape for their benefit but resists the creation of infrastructure in the least impactful location under their created misperception that it is not needed or that the proposed route is more impactful than other alternatives, even though all of the line routes were studied in-depth prior to the selection of the Proposed Route.

The most remarkable demonstration of the inappropriate political influence that has taken place on this project is detailed in a letter to our State Senators and provided along with this letter detailing the change of the Idaho Power original 'Applicant Proposed Action' route to the BLM's 'Preliminary Agency Preferred Alternative' route which **was to be** submitted in the Draft Final Environmental Impact Statement for the project and which was not to be the route you reference in your proclamation, but at the last minute was changed to the route you reference as a 'viable option' by inappropriate influence from someone in Washington DC. This is notable as the BLM personnel from the BLM Vale Oregon office responsible for following the congressionally designated review processes and changed that route as originally proposed by Idaho Power to the current proposed route predominately following the existing 230 kv transmission line south of La Grande. Through this process Idaho Power also concluded that the route following the 230 kv line was the least impactful location for the line south of La Grande and their amended application for this routing should be commended as they did not succumb to the politics of the decision, they admirably based their final decision on the actual potential impacts of the routes evaluated, not on the embellished impacts provided by a select group of special interest folks who have exaggerated and contrived impacts to politically influence the routing away from their property.

If the City is truly concerned about the visual impact of the proposed line location why are you not identifying and creating proclamations in opposition to the other developments that are also impacting the La Grande view shed - like cell phone towers; the creation of new roads, utility lines, etc for and including the housing developments south of B Avenue; why have you not issued a proclamation to Union County 'Declaring and

Clarifying Opposition' to the issuance of building permits for homes and associated developments outside of the city limits south and west of La Grande on the hillside above the end of C Avenue and up the draw south of the Table Mountain; does the City have a proclamation stating the acceptable logging practices on the hillsides in view of La Grande in all directions, we could not find one. Lastly if you really care about the existing La Grande view shed why in the heck is the Urban Growth Boundary designated to go to the south and the west on the foothills of La Grande, is your concern truly about view shed or is it just succumbing to the pressure of an influential special interest group driven by members living near Morgan Lake?

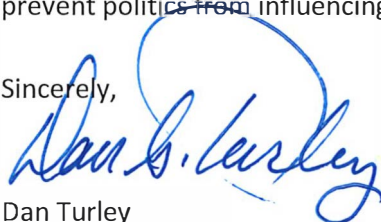
Outside of the stated view shed impact the proclamation presents the following other stated impacts which we would like to dispute. It states there will be negative impact on the property values, this may be true, but this reasoning would apply to any and all lands within the lines path regardless of which route it takes and why would the impact to city values garner greater concern than the value impact to the undeveloped properties along the other routes? We would strongly contend that the degradation in property values along the more remote routes would be greater than the value degradation along the route near the city which is already predominately developed, and which will continue to develop regardless of the line location that is proposed.

It does not make sense that the proclamation implies significant adverse environmental impacts and impacts to the City water infrastructure from the line being constructed and operated along the Proposed Route. The environmental and infrastructure impact of the line in this location will be insignificant when compared to the continued urban sprawl south and west of the City. The City in clear conscious should not use the potential environmental impacts of placing the line on the Proposed Route when the environmental impacts of building the line through the undeveloped areas across Glass Hill will have far greater impacts than those created by following the existing 230 kv transmission line.

The statement in the proclamation on the impact to the city's roads will only be true if the City allows the construction activities to cause this as the City has the authority to place requirements on the construction activities taking place within their jurisdiction to prevent this from happening. Because of the 'mitigation' process associated with project like this the construction of the line in this location should result in significant improvements to the city road ways like Gekeler Lane and the existing Morgan Lake Road which are both in dire need of improvement, so stating this as an issue is nothing but an exaggeration.

The Glass Hill Coalition would like to request that the City of La Grande retract this proclamation and strive to prevent politics from influencing the outcome of this and any other Siting process in the future.

Sincerely,



Dan Turley

Glass Hill Coalition