

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

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| In the Matter of the Request for Amendment #1 of the Site Certificate for the Helix Wind Power Facility |)))) | FINAL ORDER DENYING A CONTESTED CASE PROCEEDING AND APPROVING AMENDMENT #1 |
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The Oregon Energy Facility Siting Council
June 24, 2011

**HELIX WIND POWER FACILITY:
FINAL ORDER DENYING A CONTESTED CASE PROCEEDING AND
APPROVING AMENDMENT #1**

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LIST OF ABBREVIATIONS

| | |
|------------|--|
| ABPP | Avian and Bat Protection Plan |
| Applicants | Iberdrola Renewables, Inc., and Helix Wind Power Facility LLC |
| APLIC | Avian Powerline Interaction Committee |
| BCCP | <i>Benton County Comprehensive Land Use Plan</i> |
| BLM | U.S. Department of the Interior, Bureau of Land Management |
| BPA | Bonneville Power Administration |
| CHCP | <i>City of Helix Comprehensive Plan</i> |
| Council | Oregon Energy Facility Siting Council |
| CRP | U.S. Department of Agriculture, Conservation Reserve Program |
| CTUIR | Confederated Tribes of the Umatilla Indian Reservation |
| Department | Oregon Department of Energy |
| DEQ | Oregon Department of Environmental Quality |
| DSL | Oregon Department of State Lands |
| EFSC | Energy Facility Siting Council |
| EFU | Exclusive Farm Use (zone) |
| HWPF | Helix Wind Power Facility |
| IBR | Iberdrola Renewables, Inc. |
| kV | kilovolt or kilovolts |
| MW | megawatt or megawatts |
| NPDES | National Pollution Discharge Elimination System |
| NRCS | Natural Resources Conservation Service |
| NWC | Northwest Wildlife Consultants |
| O&M | operations and maintenance |
| OAR | Oregon Administrative Rules |
| ODFW | Oregon Department of Fish and Wildlife |
| ODOE | Oregon Department of Energy |
| ORBIC | Oregon Biodiversity Information Center |
| ORS | Oregon Revised Statutes |
| OWRD | Oregon Water Resources Department |
| PUC | Oregon Public Utility Commission |
| SCADA | Supervisory, Control and Data Acquisition (the control system for the energy facility) |
| SHPO | State Historic Preservation Office |
| TSP | Transportation System Plan |
| UCCP | Umatilla County Comprehensive Plan |
| UCDC | Umatilla County Development Code |

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| USFWS | U.S. Department of the Interior, U.S. Fish and Wildlife Service |
| WEST | Western EcoSystems Technology, Inc. |
| WMMP | Wildlife Monitoring and Mitigation Plan |
| WMRS | Wildlife Monitoring and Reporting System |
| ZVI | Zone of Visual Influence |

**HELIX WIND POWER FACILITY:
FINAL ORDER DENYING A CONTESTED CASE PROCEEDING AND
APPROVING AMENDMENT #1**

I. INTRODUCTION

1 The Oregon Energy Facility Siting Council (Council) issues this order in accordance
2 with ORS 469.405 and OAR 345-027-0070. This order addresses a request by the certificate
3 holder, Iberdrola Renewables, Inc., (IBR) and the proposed transferee, Helix Wind Power
4 Facility LLC (a wholly-owned subsidiary of IBR), for amendment of the site certificate for
5 the Helix Wind Power Facility (HWPF). As used herein, the term “applicants” means IBR
6 and Helix Wind Power Facility LLC.

7 The Council issued a site certificate for the HWPF in July 2009. The site certificate
8 authorized construction and operation of up to 60 wind turbines and related facility
9 components. The facility would have a peak generating capacity of up to 102 megawatts
10 (MW). The facility site is entirely on private lands located in Umatilla County approximately
11 9 miles northwest of Helix, Oregon. The certificate holder has not begun construction of the
12 facility.

13 The definitions in ORS 469.300 and OAR 345-001-0010 apply to terms used in this
14 order.

II. PROCEDURAL HISTORY AND AMENDMENT PROCESS

15 On August 12, 2010, IBR and the proposed transferee submitted a “Request for
16 Amendment #1 to the Site Certificate for the Helix Wind Power Facility” (Request for
17 Amendment #1). On August 26, 2010, the certificate holder sent copies of the amendment
18 request to a list of reviewing agencies provided by the Oregon Department of Energy
19 (Department) with a memorandum from the Department requesting agency comments by
20 September 24, 2010. On August 26, the Department sent notice of the amendment request to
21 all persons on the Council’s mailing list, to the special list established for the facility and to an
22 updated list of property owners supplied by the certificate holder, requesting public comments
23 by September 24, 2010.

24 By email dated August 26, the Department notified the certificate holder that the
25 Department had determined that the amendment would need extended review. The
26 Department notified the certificate holder that the proposed order would be issued no later
27 than February 22, 2011.

28 In response to the public and agency notices of the amendment request, the
29 Department received written comments from the following reviewing agencies and members
30 of the public:

- 31 · Reviewing Agencies
- 32 Sarah Kelly, Oregon Department of State Lands
- 33 Jerry Sauter, Oregon Water Resources Department
- 34 Todd Hesse, Oregon Department of Environmental Quality
- 35 Carol Johnson, Umatilla County Planning Department

1 Doug Young, U.S. Fish and Wildlife Service
2 Alex Phillips, Oregon Parks & Recreation Department

3 • Public Comments

4 Lilliann Watah, Cultural Resource Protection Specialist, Klamath Tribes
5 Chuck Little, Laborers Local 121(Hermiston, Oregon)
6 Dennis Wilkinson, Friends of the Grande Ronde Valley (LaGrande, Oregon)
7 Jed and Michele Farmer (Union, Oregon)
8 James Burns (Weston, Oregon)

9 The Department considered all of the comments in preparing the proposed order. A
10 summary of all comments received and the Department's responses are included in
11 Attachment D, incorporated herein by this reference.

12 On December 17, 2010, the Council held an informational hearing on the site
13 certificate transfer request, as required under OAR 345-027-0100(7). There were no public
14 comments on the proposed transfer.

15 The Department analyzed the Request for Amendment #1 for compliance with all
16 applicable Council standards. The Department issued a proposed order on February 9, 2011.
17 The proposed order contained the Department's recommended findings and conclusions. The
18 Department recommended that the Council approve the amendment request, subject to
19 recommended revisions of the site certificate.

20 On February 11, 2011, the Department issued a public notice of the proposed order
21 and sent the notice to the applicants, to the reviewing agencies, to the list of property owners
22 supplied by the applicants in the amendment request, to all other special lists for the facility
23 and to the Council's general mailing list. The notice specified a deadline of March 14, 2011,
24 for the public to submit comments or requests for a contested case. On March 16, the
25 Department issued a second public notice, extending the comment period to April 11, 2011.
26 The notice was sent to a corrected mailing list of property owners as well as to the applicants,
27 to the reviewing agencies, to all other special lists for the facility and to the Council's general
28 mailing list.¹ In addition to extending the comment period, the notice advised the public of
29 corrected noise contour maps and revised tables of predicted noise levels and directed the
30 public to the Department's website where these materials could be found and downloaded. On
31 April 7, the Department issued a third public notice, announcing a public meeting to be held
32 on April 27 in Helix, Oregon, to hear oral public comment on the proposed order and
33 extending the comment period to April 27 at the close of the public meeting. The notice
34 specified that requests for a contested case proceeding must be submitted in writing by the
35 close of the public meeting.

36 In response to the public notices on the proposed order, the Department received
37 written and oral public comments and reviewing agency comments from the following. Six
38 sets of comments included a request for a contested case proceeding.

39 • Public Comments with Request for a Contested Case Proceeding

40 Dennis Wilkinson, Friends of the Grande Ronde Valley

¹ The applicants had determined that the previous property owner list had omitted at least one property owner who should have been notified as described in OAR 345-021-0010(1)(f).

1 Robin and Cindy Severe
2 Wade Muller
3 Irene Gilbert
4 Bill Timmermann
5 Richard Jolly, Blue Mountain Alliance

6 · Other Public Comments

7 Janell Leake
8 Dave and Judy Price
9 Jay and Julia Spratling
10 Fay Swanson
11 Gunder Terjeson and Kirk Terjeson
12 Tom Winn
13 Raymond Rees
14 Casey Beard
15 Wendell Baskins
16 Bill and Marcy Holton
17 Tom Peterson
18 Nancy Rees Duff
19 Ron Brown
20 Gary Rhinehart
21 Jeff Newton
22 William and Barbara Andrus and Michael Kilby

23 · Reviewing Agency Comments

24 Dennis Griffin, State Historic Preservation Office
25 Carol Johnson, Umatilla County Department of Land Use Planning
26 Jeff Everett, U.S. Fish and Wildlife Service

27 The Department sent copies of all comments to each member of the Council and to the
28 applicants. The applicants submitted comments in response before the comment deadline of
29 April 27, 2011, and the Department sent copies of those comments to the Council members as
30 well. The Department considered all of the comments and prepared a comment summary and
31 response document, which is Attachment E incorporated herein by this reference.

32 On May 18, the Council met in Pendleton, Oregon, to consider the proposed order and
33 the comments received. The Council addressed the contested case requests in accordance with
34 OAR 345-027-0070(7) and (8).

35 **Analysis of Contested Case Requests**

36 The criteria for deciding whether an issue justifies a contested case proceeding are
37 stated in OAR 345-027-0070(7) (emphasis added):

38 (7) To determine that an issue justifies a contested case proceeding under section (8), the Council must
39 find that the request raises a significant issue of fact or law that may affect the Council's determination
40 that the facility, with the change proposed by the amendment, meets an applicable standard. If the
41 Council finds that the request would not affect the Council's determination if the alleged facts were
42 found to be true but that those facts could affect a site certificate condition, the Council may deny the
43 request and may adopt appropriate conditions. If the Council does not have jurisdiction over the issue
44 raised in the request, the Council must deny the request.

1 At the meeting on May 18, 2011, Janet Prewitt, Assistant Attorney General from the
2 Oregon Department of Justice, presented information to the Council regarding its options
3 under OAR 345-027-0070(8) for action on a contested case request. In summary, the Council
4 has three options regarding issues expressed by commenters who request a contested case
5 proceeding on the Department’s proposed order on a site certificate amendment request:

6 **Option 1:** Under OAR 345-027-0070(8)(a), the Council may decide that an issue
7 justifies a contested case under the criteria in OAR 345-027-0070(7) quoted above and
8 decide to conduct a contested case proceeding. The contested case would be limited to
9 the issues that the Council specifies.

10 **Option 2:** Under OAR 345-027-0070(8)(b), the Council may decide that an issue can
11 be settled by amending the proposed order or amending a site certificate condition.
12 Under this option, the Council would direct ODOE to amend the proposed order.
13 ODOE would issue an amended proposed order and a public notice. Within 30 days,
14 any person could, in writing, request a contested case proceeding—limited to issues
15 raised by the amendment of the proposed order. If there were requests for a contested
16 case, then the Council would have to decide at a future meeting whether a contested
17 case proceeding is justified.

18 **Option 3:** Under OAR 345-027-0070(8)(c), the Council may decide that an issue does
19 not justify a contested case under the criteria quoted above. Under this option, the
20 Council would deny the contested case request and issue a written order specifying the
21 basis for the decision. The Council would then take final action on the amendment
22 request and would have the further options to adopt, modify or reject the proposed
23 order on the amendment request.

24 After the presentation by Janet Prewitt, the Department presented an analysis of all of
25 the issues expressed by those commenters who had requested a contested case proceeding.
26 The Department organized the issues into fourteen contested case topics and grouped the
27 topics into six general categories. Within each topic, the Department analyzed one or more
28 issues and provided cross-references to the individual comments that had expressed each
29 issue. In the discussion that follows, the issues are summarized, followed by numerical cross-
30 references to the comment summary and response document (Attachment E), in which
31 individual numbered responses are given to each comment.

32 Jurisdiction

33 **Topic: Does Oregon need more wind energy facilities?**

34 Comment: Wind facilities are not needed because they are unreliable, because they are not cost-
35 effective, because the power is sold out of state, or because the Council has not “balanced the overall
36 public benefits against the damage to the resources.” [Responses 2, 4, 76 and 107]

37 The Oregon Legislature has spoken on this issue. As stated in ORS 469.310:

38 *It is furthermore the policy of this state, notwithstanding ORS 469.010 (2)(f) and the definition*
39 *of cost-effective in ORS 469.020, that the need for new generating facilities, as defined in ORS*
40 *469.503, is sufficiently addressed by reliance on competition in the market rather than by*
41 *consideration of cost-effectiveness and shall not be a matter requiring determination by the*
42 *Energy Facility Siting Council in the siting of a generating facility, as defined in ORS*
43 *469.503.*

1 The comments included references to the Council’s balancing authority, which is
2 authorized by ORS 469.503(1). The need to balance, however, applies only if the Council
3 finds that the proposed facility does not comply with the standards adopted by the Council.
4 The Council has made rules with regard to the use of this authority. Under OAR 345-022-
5 0000(2) the balancing authority is to be used as a last resort, only when the applicant has
6 shown “that the proposed facility cannot meet Council standards or has shown, to the
7 satisfaction of the Council, that there is no reasonable way to meet the Council standards
8 through mitigation or avoidance of the damage to the protected resources.” The balancing
9 authority is not appropriate in this case, where the applicant has shown that the proposed
10 expansion complies with all of the siting standards that have been adopted by the Council.

11 The Department recommended that the Council find that balancing is inapplicable and
12 that a contested case on the issue of need must be denied in accordance with OAR 345-027-
13 0070(7) for lack of jurisdiction.

14 **Topic: Does the proposed order adequately restrict aviation warning lights?**

15 Comment: The red blinking aviation warning lights are disturbing. [Response 99]

16 The Federal Aviation Agency (FAA) establishes the requirements for aviation safety.
17 This is not within the Council’s jurisdiction to decide. Condition 99 limits exterior nighttime
18 lighting at the facility and specifies the minimum turbine tower lighting required or
19 recommended by the FAA. The Department recommended that the Council find a contested
20 case on the issue of aviation warning lights must be denied in accordance with OAR 345-027-
21 0070(7) for lack of jurisdiction.

22 **Topic: Do EFSC standards address the potential impact of wind energy facilities on property**
23 **values?**

24 Comment: The wind facility will devalue property that is within a 2-mile radius of the wind turbines.
25 [Responses 33, 45, 46, 47, 49, 103 and 107]

26 There is no applicable siting standard that requires the Council to make findings on the
27 potential but uncertain effects of a proposed energy facility on real property values within two
28 miles of a wind turbine. The Council must apply the existing standards to this amendment
29 request. Adoption of new standards should be done through rulemaking. The Department
30 recommended that the Council deny a contested case on the issue of property values because
31 the comments do not raise a significant issue of fact or law that may affect the Council’s
32 findings on any applicable standard.

33 Process

34 **Topic: Did ODOE give adequate notice and opportunity for public comment?**

35 Comment: Three residences left off of noise map were not notified. [Responses 40, 41, 42, 43 and 116]

36 A noise contour map is not used to determine which property owners should receive
37 mailed notices. The fact that three houses were not shown on the noise map is not relevant to
38 the issue of whether the correct notice procedure was followed.

39 The Department followed the rules regarding notice to property owners. The rules
40 (OAR 345-027-0070(1) and (5)) direct the Department to send notice to property owners on a
41 list supplied by the certificate holder in the amendment request. The certificate holder is to
42 generate that list using the county tax assessment rolls. By rule (OAR 345-021-0010(1)(f)),

1 the list includes properties that are either within the site boundary of the facility or within 500
2 feet of the site boundary. If a property is beyond 500 feet from the facility site boundary, then
3 the property will not be on the list.

4 The Department was first notified in late February by the Umatilla County Planning
5 Director about a possible error in notifying property owners. The Department immediately
6 investigated the situation and contacted the applicants. The investigation determined that one
7 property owner within 500 feet of the site boundary should have been included on the mailing
8 list but had been omitted in error. The Department cured this notification error by a
9 subsequent mailing and extension of the public comment period.

10 The comment may be saying that all property owners whose residences lie within or
11 near the 36 dBA contour line on a noise map *should* have received mailed notices, regardless
12 of what the rules say. In the future, the Department may do so as a matter of improving the
13 Department's procedures, even though it is not required, but there was no procedural error in
14 this case.

15 The Department believes that all property owners within the 36 dBA contour received
16 actual notice of the proposed expansion of the HWPF with adequate time to participate in the
17 process. Notice of the proposed amendment has been available on the Department's website
18 since August 2010 and could readily be located by a simple Internet search. In addition, the
19 applicants held an open house meeting in Helix in October 2010, which provided actual notice
20 to many property owners who did not receive the mailed notice from ODOE. Also, the
21 applicants have contacted many, if not all, of the property owners to discuss their willingness
22 to execute noise waivers.

23 The Department recommended that the Council deny a contested case on the issue of
24 notice because the comments do not raise a significant issue of fact or law that may affect the
25 Council's findings on any applicable standard.

26 **Topic: Is EFSC following the correct procedure in treating the proposed Helix expansion as an**
27 **amendment of the site certificate?**

28 Comment: The statement that the addition of 74 turbines only increases capacity by 99 MW is an
29 intentional effort to understate the capacity to justify an amendment rather than an application for a new
30 facility. [Responses 73 and 79]

31 Condition 26 of the current site certificate allows the certificate holder to select any
32 type of wind turbine up to 3.0-MW, subject to a limit of 60 turbines and a limit of 102 MW
33 for the combined peak generating capacity of the facility as a whole. The individual capacity of
34 the turbine type selected for the project will determine the overall generating capacity of the
35 facility as a whole. If the amendment is approved, Condition 26 would allow the certificate
36 holder to build up to 134 turbines, but there is a limit of 201 MW generating capacity for the
37 facility as a whole, and no individual turbine can exceed 3.0-MW. For example, if the
38 certificate holder chose to use 3.0-MW turbines, then only 67 turbines could be built under the
39 amended site certificate ($67 \times 3.0 = 201$). If the certificate holder selected 1.5-MW turbines,
40 then 134 turbines could be built ($134 \times 1.5 = 201$). The Department recommended that the
41 Council deny a contested case because the comment does not raise an issue of fact or law that
42 would affect a Council finding on an applicable standard.

1 Comment: The Council should require a new site certificate application rather than an amendment for a
2 project of this size. [Responses 1, 28, 71, 72, 74, 75, 77, 78 and 80]

3 These comments argue that the Council should require the applicants to submit a site
4 certificate application and that the use of the amendment procedure for an expansion of this
5 size is improper. Under ORS 469.405, the Council has broad discretion to decide when an
6 amendment is allowed. The Council has adopted rules governing the procedures for
7 amendments, and those rules have been followed here. Furthermore, there has been no short-
8 changing of the siting standards. Under OAR 345-027-0070(10), the Council must consider
9 whether the proposed expanded facility complies with *all* Council standards. That is, the
10 amendment is held to same standards as a new site certificate.

11 The commenters may be arguing for a different policy regarding amendments to
12 expand a facility by a certain amount of generating capacity. Such a change to the Council
13 policy would be undertaken by rulemaking. There was no procedural error in this case. The
14 Department recommended that the Council find that the comments do not raise any issue of
15 fact or law that would affect a Council finding under any applicable siting standard.

16 Misunderstandings

17 **Topic: Does the proposed order adequately address site restoration procedures and costs?**

18 Comment: The transfer of the site certificate to a subsidiary limits IBR's liability. [Response 5]

19 The certificate holder's liability is for the full cost of site restoration. Under
20 Conditions 9 and 16, the certificate holder is obligated to pay the full cost of site restoration.
21 Under Condition 9, the certificate holder restores the site and pays the full cost. Under
22 Condition 16, the Council can draw on the financial assurance bond or letter of credit to
23 restore the site, and if the financial assurance amount is insufficient, the certificate holder is
24 liable for the difference. In either case, the restoration must meet the requirements of a final
25 retirement plan approved by the Council, which ensures that the site is restored to a useful,
26 non-hazardous condition. On December 17, 2010, the Council held an informational hearing
27 on the proposed transfer of the site certificate. There were no public comments at that time.

28 The Department recommended that the Council find that the comment does not raise
29 any issue of fact or law that would affect a Council finding under any applicable siting
30 standard.

31 Comment: There are no guidelines for when site restoration is to be done. [Response 8]

32 The obligation to restore the site is triggered by the permanent cessation of
33 construction or operation of the facility. This can be determined either by the certificate
34 holder under Condition 9 or by the Council under Condition 16. This would be a factual
35 determination based on the circumstances that exist at the time. The Department
36 recommended that the Council find that the comment does not raise any issue of fact or law
37 that would affect a Council finding under any applicable siting standard.

38 Comment: Removing foundations to 3 foot depth is not sufficient for crops. [Response 9]

39 In the *Final Order on the Application for Site Certificate*, the Council found that
40 removing underground components and foundations to a depth of three feet would not
41 interfere with farming practices. That finding is not subject to appeal. The finding was

1 supported by a letter from the Umatilla County Crops Agent, Oregon State University
2 Extension Service.

3 Comment: Finding a “reasonable likelihood” that the certificate holder can provide a bond is not
4 acceptable. [Response 11]

5 The Retirement Standard requires a finding by the Council that the applicants have a
6 “reasonable likelihood of obtaining a bond or letter of credit in a form and amount satisfactory
7 to the Council to restore the site to a useful non-hazardous condition.” The commenter might
8 not agree with the standard, but that is the standard that the Council has adopted. The
9 Department recommended that the Council find that the comment does not raise any issue of
10 fact or law that would affect a Council finding under any applicable siting standard.

11 Comment: The cost estimate is not accurate. [Responses 10, 12, 13, 14, 15, 16, 17, 18 and 19]

12 These comments are all directed at Attachments 7 and 3 of the amendment request and
13 do not directly address the proposed order or the recommended Council findings. The
14 attachments in the amendment request reflect the applicants’ estimate of site restoration costs
15 for the proposed expansion. The Department made an independent assessment of site
16 restoration costs for the expanded facility as a whole.² The estimate is based on “highest-cost”
17 assumptions about facility components. It is based on unit costs for all work associated with
18 site restoration. The unit costs are 2010 costs developed by a qualified independent consultant
19 familiar with demolition contracting.

20 The cost estimate in the proposed order is not the final cost estimate. The final
21 estimate will be determined under Condition 31 when the final design of the facility is known
22 but before construction begins. The Council will have the opportunity to approve the amount
23 at that time.

24 The purpose of the cost estimate is to support the dollar value of the bond or letter of
25 credit that the certificate must provide before beginning construction. Under the language of
26 the Retirement standard, the amount must be “satisfactory to the Council” for this purpose. As
27 explained above, however, the certificate holder is obligated to pay the full cost of site
28 restoration, and that is not limited by the cost estimate.

29 The Department recommended that the Council find that the comments do not raise
30 any issue of fact or law that would affect a Council finding under any applicable siting
31 standard.

32 **Topic: Does Condition 56 provide adequate notice to ODOE of potential spills of hazardous**
33 **materials?**

34 Comment: ODOE should be notified within 12 hours, rather than within 72 hours, of any spill or release
35 of hazardous materials. [Response 21]

36 This comment is directed to Condition 56. This condition is part of the current site
37 certificate, which is not subject to appeal. The Council has already found that notification to
38 ODOE within 72 hours is appropriate with regard to the HWPF.

39 Condition 56 requires cleanup of any spills or releases “according to applicable
40 regulations.” It requires spill kits to be available on site for immediate response to any spills,

² The Department’s cost estimate is shown in Table 1 herein.

1 and it requires training of employees regarding handling, storage and cleanup of hazardous
2 materials. The state agency responsible for hazardous materials regulation is the Oregon
3 Department of Environmental Quality. There are also federal regulations for hazardous
4 materials that may apply. The requirement in Condition 56 to clean up spills according to
5 applicable regulations includes timely notification to DEQ or the federal EPA according to the
6 applicable regulations. ODOE does not administer state or federal regulations regarding
7 cleanup of hazardous materials, but ODOE wants to be informed if a spill occurs. Notification
8 to ODOE within 72 hours of the event is reasonable.

9 Condition 56 relates to the Soil Protection standard, which requires a Council finding
10 that design, construction and operation of the facility are not likely to result in a significant
11 adverse impact to soils. The comment regarding the timeliness of notice to ODOE raises no
12 significant issue with regarding the Council’s determination that the standard is met.

13 **Topic: Does the proposed order adequately address fire risk and response?**

14 Comment: Fire risk is high in wheat fields. [Response 30]

15 The comment does not raise any issue. The Department agrees that fire risk is high in
16 wheat fields, and the proposed order acknowledges the fire risk.

17 Comment: There should be a fire risk assessment; the response plan is inadequate. [Responses 53, 54,
18 57, 104 and 121]

19 There is no issue whether a fire plan is needed. Condition 60 addresses the need for a
20 fire risk assessment and the development of an appropriate and effective response plan. The
21 Department agrees with the comments that a fire risk assessment must be done, but the
22 Department believes that this can done most effectively after the final design of the facility is
23 known—but before construction begins. When the final design and layout of the facility has
24 been done, the locations and size of turbines will be known, the locations of access roads and
25 O&M buildings will be known, and the level of staffing and the abilities and training needs of
26 on-site personnel can be assessed. When the final design is known, a specific plan is
27 developed. The plan will change depending on whether the facility is in construction or in
28 operation. The plan would assess the training and ability of facility personnel to respond to
29 fires (whether during construction or during operation of the facility). The on-site personnel
30 will be in the best position to respond rapidly to any fire that occurs on the site. They should
31 be trained and equipped to respond even before local fire departments can reach the fire
32 location. The plan should address what equipment and fire suppression water supplies should
33 be on site and in what locations.

34 Comment: Use of the Milton-Freewater Rural Fire District (MFRFD) is not appropriate for the location.
35 [Responses 22, 31 and 56]

36 Condition 60 requires consultation with the MFRFD. It also requires annual meetings
37 with “local fire protection agency personnel”—not limited to the MFRFD—to discuss
38 emergency planning. The fire plan should be developed in consultation with all local fire
39 response agencies that could respond to a fire on the facility site. The plan should map out a
40 coordinated plan for response.

41 Comment: There is no fire plan in place during construction. [Response 35]

42 Condition 60 requires that the fire safety plan be in place *during construction and*
43 *operation*. The Council considers Condition 60 to be a pre-construction compliance issue.

1 That is, ODOE, under authority delegated by the Council, will expect to see the fire plan
2 developed before construction begins. The plan must be submitted to ODOE for review, and
3 ODOE will tell the certificate holder if the plan needs to be revised or improved.

4 Comment: Helix FD does not have ability to respond to fire. [Response 34]

5 Jeff Newton spoke at the Council's listening session (see Response 130). Speaking as
6 the Chairman of the Helix Rural Fire Department, he said that the Helix Fire Department was
7 capable of responding to a fire on the HWPF site. The fire plan required under Condition 60
8 should include consultation with the Helix FD, but it should not be assumed that the Helix FD
9 would be solely responsible for responding to a fire.

10 **Topic: Does Condition 50 adequately protect cultural resources?**

11 Comment: It is ridiculous to attempt to teach a construction machine operator to be able to recognize
12 cultural materials. [Response 20]

13 This comment is directed to Condition 50, which is part of the current site certificate
14 and not subject to appeal.

15 The conditions that relate to the protection of cultural resources (including Conditions
16 48, 49, 50 and 51) were all reviewed and approved by the State Historic Preservation Office
17 during the site certificate proceedings. The Council has already approved these conditions for
18 the HWPF.

19 In considering whether this comment raises a significant issue that may affect a
20 Council finding under an applicable standard, the legal context for the cultural resource
21 conditions must be understood. The Oregon Legislature, in ORS 469.501(4), has directed the
22 Council that the Historic, Cultural and Archaeological Resources standard cannot be imposed
23 on wind, solar or geothermal energy facilities to approve or deny a site certificate. The statute
24 allows the Council to apply the standard to impose conditions in the site certificate to the
25 extent the Council determines appropriate, but the Council cannot use a finding under the
26 standard to deny a site certificate for a wind facility.

27 The Department recommended that the Council find that the comment does not raise
28 an issue of fact or law that would affect a Council finding under any applicable siting standard
29 that could result in denial of a site certificate.

30 Land Use

31 **Topic: Does the proposed order adequately address Umatilla County land use ordinances?**

32 Comment: The expansion creates socioeconomic impacts that have not been addressed as required by
33 UCDC Section 152.616(2)(I). [Response 26]

34 This comment is directed at Section 152.616(2)(I) of the Umatilla County
35 Development Code. That ordinance describes the content of an application for a Conditional
36 Use Permit under the County process. It does not contain any applicable land use standard.
37 The ordinance is primarily procedural at the county level and does not directly apply to a site
38 certificate amendment request submitted under the Council rules. Nevertheless, as discussed
39 herein, the amendment request has addressed socioeconomic impacts. The comment does not
40 specify what socioeconomic impacts have not been addressed and therefore the comment does
41 not raise an issue of fact or law.

1 Comment: Because there is no longer an EGA, the amendment needs to comply with all county
2 planning codes, which will require a conditional use permit application and a public hearing. [Response
3 27]

4 The elimination of the Umatilla County Energy Generation Area (EGA) is not
5 relevant. The Council’s Land Use standard applies and requires consideration of all applicable
6 substantive criteria that have been identified by Umatilla County. The comment does not
7 identify any issue regarding the proposed land use findings. Under ORS 469.401(3), if an
8 amended site certificate is issued, the County may amend its Conditional Use Permit for the
9 HWPF consistent with the amended site certificate, and no public hearing is required or
10 allowed.

11 Comment: The statement in the proposed order that the facility “would have beneficial economic and
12 social consequences” is not true for some local residents. [Response 48]

13 This comment is directed at a portion of the land use discussion beginning at page 48
14 below that addresses the requirements of OAR 660-033-0130(37). One of the requirements
15 under OAR 660-033-0130(37) is that the applicant must show that “the long term
16 environmental, economic, social and energy consequences” of the facility or its
17 components—taking mitigation into account—“are not significantly more adverse than
18 would typically result from the same proposal being located on other agricultural lands that do
19 not include high-value farmland soils.” The comment implies that there would be no
20 beneficial economic or social consequences for property owners who “refuse to sign noise
21 easements.” Even if the Council were to assume that the consequences for some property
22 owners would be adverse, it would still be true that the social and economic consequences for
23 other property owners would be beneficial. The regulation does not require the Council to find
24 that the proposed expansion of the HWPF would benefit everyone. It requires the Council to
25 compare the consequences of locating the facility on high-value soils versus locating the same
26 facility on non-high-value soils.

27 The finding that the Council must make under OAR 660-033-0130(37) is whether
28 putting the facility on high value farmland soils would not be significantly more adverse than
29 putting the same facility on non-high-value farmland soil. The overall purpose of OAR 660-
30 033-0130(37) is to determine whether the facility meets certain criteria for being located on
31 high-value-farmland soils.

32 Comment: The facility violates land use planning goals 1 and 9. [Response 70]

33 Under ORS 469.504, the Council must make its land use findings by applying the
34 applicable substantive criteria that have been identified by the county. If the Council finds that
35 the facility meets the local criteria, then by statute, the facility meets the applicable statewide
36 planning goals. The local criteria are based on the county’s state-approved comprehensive
37 land use plan, which ensures compliance with the land use goals. The Department
38 recommended that the Council find that the comment does not raise a significant issue of fact
39 or law that would affect a Council finding under any applicable siting standard.

40 Goal 1 requires “the governing body charged with preparing and adopting a
41 comprehensive plan” to adopt a program for citizen involvement. Goal 9 contains guidelines
42 for the adoption of comprehensive plans. Neither of these goals is directly applicable to the
43 Council’s decision on whether the proposed expansion of an energy facility meets local
44 criteria for land use.

1 Comment: The facility should not be located on so much high value farmland and should be located
2 elsewhere. [Responses 58, 102 and 119]

3 These comments express the opinion that wind energy facilities should not be located
4 on agricultural land. To the contrary, ORS 215.283(2)(g) authorizes “commercial utility
5 facilities for the purpose of generating power for public use by sale” on agricultural land. A
6 wind power generation facility is an allowable use on agricultural land under UCDC Section
7 152.060. Under OAR 660-033-0120, a “wind power generation facility” is an allowable use
8 on agricultural land, and OAR 660-033-0130(37) provides criteria for the approving the
9 location of a wind power generating facility on high-value-farmland. The Department
10 recommended that the Council find that there is no significant issue of fact or law that is
11 raised by these comments.

12 Comment: The setback distances proposed by the Umatilla County Planning Commission should apply.
13 [Response 107]

14 Under OAR 345-027-0070(10), the Council must apply the County’s land use
15 ordinances that were in effect when the amendment request was submitted. The applicable
16 county ordinances are those that were in effect as of August 12, 2010, and they do not include
17 new setback distances recently proposed by the Umatilla County Planning Commission. The
18 Department recommended that the Council find that there is no significant issue of fact or law
19 that is raised by the comments.

20 The Council has previously approved a site certificate for the HWPF. Condition 43 of
21 the site certificate incorporates the applicable county setback ordinances. The site certificate
22 goes beyond the minimum setbacks required by the county ordinances and requires turbine
23 setbacks from residences that would comply with the DEQ noise regulations. That setback
24 requirement is enforced through Condition 101 of the site certificate.

25 Noise

26 **Topic: Does the proposed order adequately address noise impacts?**

27 Comment: The noise analysis issue cannot be addressed because there is no final site plan. [Response
28 23]

29 A final site plan cannot be submitted until the turbines have been selected and the final
30 design has been developed. Under Condition 101, after the final design has been developed,
31 the certificate holder must provide a final noise analysis that demonstrates that the facility
32 would comply with the noise regulations. What has been provided in the amendment request
33 is an analysis based on two tentative turbine layouts. This is consistent with the way that the
34 Council has addressed the noise control regulations for other wind facilities. The tentative
35 layouts provide a basis for the Council to find that it is *possible* to build the facility in
36 compliance with the noise control regulations, and the analysis provides a basis for
37 determining where noise waivers may be required in order to demonstrate compliance.
38 Having a noise analysis based on tentative layouts also makes it possible for the Council’s
39 noise consultant to review the analysis and to clarify the analysis methodology and the
40 expectations that will also be applicable for the final noise analysis when it is submitted under
41 Condition 101 prior to construction.

1 Comment: The noise tables do not show “all towers” or address “adjacent landowners and traveling
2 public.” [Response 24]

3 The Department recommended that the Council find that the comment does not raise a
4 significant issue of fact or law that would affect a Council finding under any applicable siting
5 standard. The comment refers to Tables 3 and 4 in the amendment request, which have been
6 combined in Table 7 herein. These tables do not list the turbine towers, but they are based on
7 the analysis of all turbines in the two tentative layouts. The layouts include the entire facility,
8 not just the expansion area.

9 The applicable noise control regulations limit noise impacts at “an appropriate
10 measurement point” and do not refer to “adjacent landowners and the traveling public.” OAR
11 340-035-0015(3) defines “appropriate measurement point.”

12 Comment: A new study is needed to address “full size” of the project. [Response 25]

13 The two tentative layouts that have been analyzed in the amendment request do, in
14 fact, address the full project area, not just the expansion area.

15 Comment: There should be zero tolerance for violations. [Response 29]

16 There is no statement anywhere in the proposed order that suggests any “tolerance” of
17 a violation of the applicable noise control rules. Condition 3 of the site certificate requires
18 compliance with all applicable state laws and rules—and this includes the noise control
19 regulations.

20 Comment: The cumulative impacts from current wind facilities have not been addressed. [Responses
21 32, 39, 50, 62, 100, 117, 120 and 122]

22 Cumulative effects are addressed by the current noise control regulations. The ambient
23 degradation test limits the increase in noise from a wind project to 10 dBA. The method of
24 showing compliance with this test, however, has been the source of some public confusion.
25 There are two methods to show compliance:

26 1) By measurement: The applicant can measure the current ambient noise level at a
27 residence and design the facility to make sure that the facility does not increase the
28 measured noise level by more than 10 dBA; or

29 2) By using an assumed background ambient noise level of 26 dBA: The applicant
30 does not have to measure the current ambient level at a residence. The applicant can
31 design the facility to make sure that the noise from the facility does not exceed 36
32 dBA (10 dBA more than the assumed background level).

33 For the Helix facility, the applicants have chosen to use the 26 dBA assumed
34 background ambient level. Using the assumed background level of 26 dBA will result in the
35 lowest cumulative noise at any residence that is already receiving noise from an existing wind
36 facility. A residence that is already experiencing noise from an existing wind facility (as well
37 as noise from other sources) may have an ambient background level that is above 26 dBA. If
38 the actual background level is measured and found to be greater than 26 dBA, the regulation
39 allows an increase of 10 dBA above the actual ambient background level. Consequently, the
40 turbines for the new facility could be located closer to the residence than would be the case if
41 the assumed background ambient level were used, and the cumulative noise levels would be
42 higher.

1 Comment: The noise contour map does not accurately reflect current sound at residences. [Response
2 38]

3 This comment does not raise an issue of fact. The Department agrees. The maps do not
4 show current sound levels, because that is not the purpose of the maps. The noise contour
5 maps and the noise tables represent the predicted noise levels *generated by the proposed*
6 *facility* based on modeling, using conservative assumptions. The maps are based on tentative
7 turbine layouts using two sizes of possible turbines. The tentative layouts include turbines in
8 the previously-approved part of the facility—not just in the proposed expansion. The maps do
9 not show a final layout of turbines that has been approved.

10 The maps are a tool to evaluate whether it would be possible to comply with the noise
11 standards. Part of the information the maps provide is the location of the “36 dBA noise
12 contour.” For any location within the contour line (that is, any location on property that lies
13 between the turbine location and the contour line), the predicted noise would exceed 36 dBA.
14 This is true whether or not a residence location is pinpointed on the map. The facility cannot
15 be built if the allowable noise limit is exceeded, and so the noise contour map is a tool to
16 determine where the applicants would need to negotiate noise waivers for any residences that
17 exist. The noise maps become a design tool for the certificate holder to develop a final turbine
18 layout based on the residences where noise waivers have been given.

19 Comment: The noise maps were inaccurate due to missing residences. [Responses 44, 60, 63 and 64]

20 Corrected noise maps have been provided. The comments do not address the corrected
21 noise maps. The Department recommended that the Council find that there is no significant
22 issue of fact or law that is raised by these comments.

23 Comment: OAR 345-024-0010 does not address cumulative noise impacts. [Response 52]

24 OAR 345-024-0010 is the Council’s “Public Health and Safety Standards for Wind
25 Facilities.” Noise impacts are not addressed under this standard, because noise impacts are
26 already addressed under the DEQ regulations; in particular, OAR 340-035-0035. The
27 comment does not raise any significant issue of fact or law under the existing language of any
28 applicable standard.

29 Comment: Noise modeling does not account for residences that are downwind or for extreme
30 topographical differences. [Response 70]

31 The noise modeling does, in fact, account for wind direction and topographical
32 differences. The modeling is based on conservative assumptions about these parameters. The
33 modeling predicts noise levels that represent the “worst case.”

34 Comment: “Wind turbine syndrome” has not been not addressed. [Responses 66, 67, 68 and 69]

35 Health effects and annoyance effects from wind facility noise are addressed by
36 Oregon’s noise control regulations adopted by the Environmental Quality Commission. The
37 Council’s job is to enforce the existing regulations through the site certificate. The
38 commenters may be suggesting that the Council should adopt new noise rules, but the
39 Environmental Quality Commission has the authority for noise control regulation in Oregon.
40 Adoption of new noise standards is a matter for the EQC to decide through rulemaking. The
41 Department recommended that the Council find that these comments do not raise any
42 significant issue of fact or law under the existing language of any applicable standard.

1 Mitigation

2 **Topic: Does the proposed order adequately address potential dust emissions?**

3 Comment: Building gravel roads increases airborne dust in the area and may cause discomfort or illness
4 for people with allergies or lung maladies. [Response 101]

5 There is no issue about the potential for airborne dust emissions during construction of
6 facility access roads. The Council addresses dust emissions through the Soil Protection
7 standard. Condition 79 requires the certificate holder to implement best management
8 mitigation practices to control any dust generated by construction activities, such as applying
9 water to roads and disturbed soil areas. The Department recommended that the Council find
10 that the comment does not raise a significant issue of fact that would affect the Council's
11 determination that the facility meets an applicable standard.

12 **Topic: Does the proposed order adequately address potential impacts on bats, birds and other**
13 **wildlife?**

14 Comment: Bat and bird fatality studies do not count casualties that fall to the ground outside the survey
15 area [Response 105]

16 The comment does not raise an issue of fact. Fatality studies are part of the mitigation
17 that is required under Condition 88. ODOE agrees that some avian and bat fatalities may be
18 undetected in the fatality surveys because they fall outside the search plots. However, the
19 studies that have been done on avian and bat fatalities near wind turbines show that most
20 fatalities are found within 80 meters of the turbine. Search plots typically extend at least 120
21 meters from the base of the turbine. It is understood that the fatalities that potentially fall
22 outside of the search plots can lead to a negative bias in the calculation of fatality rates, but
23 there are also positive biases that may tend to overestimate the fatality rates. The reported
24 fatality rates should be viewed with some caution due to positive and negative biases in the
25 data. It is important to use a standard protocol for fatality monitoring so that the results from
26 different wind facilities can be compared and so that patterns and trends in the data can be
27 analyzed. The comment does not raise an issue that has not already been taken into account in
28 the recommended findings.

29 Comment: Low frequency noise may be detrimental to animals; I haven't seen deer on my farm since
30 the FPL towers were built. [Response 105]

31 The applicable Council standard is the Fish and Wildlife Habitat Standard. This
32 standard incorporates the habitat mitigation goals and standards of the Oregon Department of
33 Fish and Wildlife (ODFW). ODFW has reviewed the amendment request and has made no
34 recommendations regarding changes to the evaluation of wildlife habitat within the expansion
35 area or to the site certificate conditions that address mitigation for habitat impacts. The
36 Department recommended that the Council find that the comment does not raise a significant
37 issue of fact that would affect the Council's determination that the facility meets an applicable
38 standard.

39 Comment: Cumulative effects on wildlife have not been addressed in compliance with OAR 345-022-
40 0060; cumulative effects of roads have not been considered. [Response 118]

41 The Council's habitat standard (OAR 345-022-0060) requires the Council to make a
42 finding of consistency with the ODFW mitigation goals and standards of OAR 635-022-0025.
43 The ODFW rule does not address cumulative impacts on wildlife. ODFW has approved the
44 current conditions in the site certificate.

1 Under OAR 345-024-0015, the Council must make a finding that the certificate holder
2 can implement “practicable measures” to reduce cumulative adverse environmental effects.
3 Such measures include the use of existing roads to provide access to the facility site,
4 minimizing the amount of land used for new roads and locating new roads in a manner that
5 reduces adverse environmental impacts. Condition 38 requires that roads be the minimum size
6 necessary for safe operation of the facility. Condition 91 requires the certificate holder to
7 locate new roads to avoid or minimize significant impacts wildlife habitat. The cumulative
8 effects of roads have, in fact, been considered.

9 **Topic: Does the proposed order adequately address runoff and potential water pollution from**
10 **facility roads?**

11 Comment: Rain runs off gravel roads and may add to the sediment that is carried eventually to the
12 Walla Walla River. [Responses 106 and 119]

13 Run off and sediment control have been addressed. Condition 40 requires all roads to
14 be designed according to standards approved by the Umatilla County Public Works Director.
15 New roads and road improvements must be designed to minimize alteration of natural
16 drainage and to utilize culverts, water bars or other measures as necessary to reduce erosion.
17 Condition 54 requires the certificate holder to design and construct the facility to avoid
18 dangers to human safety presented by non-seismic hazards, including erosion. Condition 77
19 requires the certificate holder to have an NPDES 1200-C permit and to conduct all
20 construction work in compliance with and Erosion and Sediment Control Plan that is
21 satisfactory to DEQ and that includes any procedures necessary to meet local erosion and
22 sediment control requirements or storm water management requirements. Condition 82
23 requires the certificate holder to inspect, maintain and repair erosion control measures during
24 facility operation.

25 In Oregon, DEQ is the federally-delegated state agency for administering the Clean
26 Water Act. ODOE requests comments from DEQ on all proposed energy facilities. DEQ
27 commented on the proposed HWPF expansion and stated that, if the construction conditions
28 are met, the proposed amendment does not raise any water quality issues.³

29 **Council Decisions on Contested Case Requests**

30 After consideration of the Department’s analysis and further discussion on May 18,
31 2011, the Council adopted the Department’s recommended findings and the reasoning
32 supporting denial of a contested case proceeding, as set out above. The Council voted to deny
33 a contested case proceeding as to all of the issues raised in the requests for contested case.
34 Pursuant to OAR 345-027-0070(8)(c), the Council further directed the Department to modify
35 the text of the proposed order in a draft final order to include clarifying language consistent
36 with the Department’s presentation on the issues of fire management and noise management.
37 The Department prepared the draft final order as directed. The draft final order was sent to the
38 Council members and was posted on the Department’s website in advance of the Council
39 meeting on June 24, 2011.

40 The Council considered the draft final order denying a contested case proceeding and
41 approving the amendment request at a meeting on June 24. The Council adopted the draft

³ See Attachment D, “Department Responses to Comments on the Request for Amendment #1,” Response 4.

1 final order as clarified, and voted to approve the amendment request subject to the revisions
2 discussed herein.

III. DESCRIPTION OF THE PROPOSED AMENDMENT

3 The amendment request describes an expansion of the site boundary of the HWPF.
4 The amendment would increase the total number of wind turbines authorized under the site
5 certificate and would increase the combined peak generating capacity of the facility. If
6 approved, the amendment would allow up to 134 wind turbines to be built and would
7 authorize a peak generating capacity of up to 201 MW. The amendment would add
8 approximately 13,027 acres to the site. The proposed new area lies generally to the west and
9 south of the previously-approved HWPF turbine micro-siting area. The amendment would
10 authorize the addition of approximately 33 miles of collector lines (up to 9.8 miles could be
11 built aboveground), approximately 31 miles of private access roads, two meteorological
12 towers, a substation and an Operations & Maintenance building.

13 The amendment request includes a transfer of the site certificate from IBR to its
14 subsidiary, Helix Wind Power Facility LLC. Upon approval of the amendment request, an
15 amended site certificate would be issued to Helix Wind Power Facility LLC, and the new
16 certificate holder would be authorized to construct and operate the HWPF subject to the terms
17 and conditions of the site certificate, as amended.

1. Amendment Procedure

18 Under OAR 345-027-0050, a site certificate amendment is needed because the
19 certificate holder proposes to design, construct or operate the HWPF in a manner different
20 from the description in the current site certificate. In particular, the certificate holder proposes
21 to expand the site boundary, which could result in significant adverse impacts that the Council
22 has not previously addressed. The expansion would require revisions of the conditions of the
23 site certificate.

24 The Department and the Council must follow the procedures of OAR 345-027-0070 in
25 reviewing the amendment request to expand the facility. In making its decision on an
26 amendment of a site certificate, the Council applies the applicable state statutes,
27 administrative rules and local government ordinances that are in effect on the date the Council
28 makes its decision, except when applying the Land Use Standard. In making findings on the
29 Land Use Standard, the Council applies the applicable substantive criteria in effect on the date
30 the certificate holder submitted the request for amendment. OAR 345-027-0070(10).

31 For an amendment that would change the site boundary, the Council must consider
32 whether the facility complies with all Council standards with respect to the area added to the
33 site by the amendment. For any amendment, the Council must consider whether the amount of
34 the bond or letter of credit required under OAR 345-022-0050 is adequate. We address
35 compliance with these requirements in Sections IV and V.

36 An amendment that transfers the site certificate is subject to the procedures described
37 in OAR 345-027-0100. To request a transfer, the transferee must submit a written request to
38 the Department that includes the information described in OAR 345-021-0010(1)(a)
39 (information about the transferee), (d) (organizational expertise of the transferee) and (m)
40 (financial capability of the transferee), a certification that the transferee agrees to abide by all

1 terms and conditions of the site certificate currently in effect and, if known, the date of the
2 transfer of ownership.⁴

3 The amendment request contains an explicit certification that the proposed transferee,
4 Helix Wind Power Facility LLC, agrees to abide by all terms and conditions of the site
5 certificate currently in effect.⁵ The amendment request does not state the date of the transfer
6 of ownership of the HWPF to the transferee. If approved by the Council, Amendment #1
7 would authorize the transferee to construct and operate the HWPF upon the effective date of
8 the amended site certificate and would transfer all rights and obligations of IBR under the
9 current site certificate to the new certificate holder.

10 As described in OAR 345-027-0100(12), the Council may act concurrently on the
11 request to transfer the site certificate and on the proposed modification of the HWPF
12 regarding the additional turbines and other components. The Department and the Council
13 must follow the procedures of OAR 345-027-0100 and the procedures of OAR 345-027-0070
14 in reviewing the combined amendment request.

15 The Council must hold a public informational hearing before acting on the transfer
16 request (OAR 345-027-0100(7)). To approve a transfer of the site certificate, OAR 345-027-
17 0100(8) requires the Council to find that:

- 18 (a) The transferee complies with the standards described in OAR 345-022-0010,
19 OAR 345-022-0050 and, if applicable, OAR 345-024-0710(1); and
20 (b) The transferee is lawfully entitled to possession or control of the site or the
21 facility described in the site certificate.

22 OAR 345-024-0710(1) pertains to the carbon dioxide emissions standard and is not
23 applicable in this case. OAR 345-022-0010 is the Organizational Expertise Standard and OAR
24 345-022-0050 is the Retirement and Financial Assurance Standard. The compliance of the
25 transferees with these standards is discussed herein at pages 22 and 24.

26 The amendment request states that IBR “created the Helix Wind Power Facility, LLC,
27 a wholly-owned subsidiary for purposes of holding the HWPF site certificate.”⁶ If the Council
28 approves the amendment request, IBR will transfer all facility assets to the subsidiary. The
29 transfer will be completed before the beginning of construction of the HWPF. When all
30 facility assets have been transferred, Helix Wind Power Facility LLC will be lawfully entitled
31 to possession or control of the site of the facility, subject to long-term lease agreements with
32 the landowners.

2. The Certificate Holder’s Proposed Amendments to the Site Certificate

33 The certificate holder describes the proposed changes to the facility in Section 4 of the
34 amendment request.⁷ The amendment would increase the maximum generating capacity of
35 the facility to 201 MW and would increase the maximum number of wind turbines to 134.

⁴ These requirements are set forth in OAR 345-027-0100(4), which also requires, if applicable, the information described in OAR 345-021-0010(1)(y)(O)(iv) (carbon dioxide emissions). Information relating to the carbon dioxide emissions standard is not applicable to wind energy facilities.

⁵ Request for Amendment #1, Section 8, p. 2.

⁶ Request for Amendment #1, Section 8, p. 2.

⁷ Request for Amendment #1, Section 4, pp. 2-10.

1 The amendment would change the facility description and location by enlarging the facility
2 site to increase the micrositing area for wind turbines and other components.

3 In Attachment 3 of the amendment request, the certificate holder proposed specific
4 changes to the site certificate. The Department recommended that the Council approve the
5 substance of the site certificate amendments proposed by the certificate holder and other
6 modifications consistent with the amendment request. The Department's recommended site
7 certificate revisions are discussed below at page 112. The *Habitat Mitigation Plan* is
8 incorporated in Condition 90 of the site certificate. The Department's recommended
9 modifications of the *Habitat Mitigation Plan* are addressed in Revision 25 and in Attachment
10 C. The Department made no recommendations for changes to the *Wildlife Monitoring and*
11 *Mitigation Plan* (incorporated in Condition 88) or the *Revegetation Plan* (incorporated in
12 Condition 89). These plans, dated July 31, 2009, are attachments A and B to the *Final Order*
13 *on the Application*. If the Council approves the amendment request, the plans would be
14 applicable to the entire HWPF under an amended site certificate.

3. Description of the Facilities Authorized by Amendment #1

15 The *Final Order on the Application for the Helix Wind Power Facility* (July 31, 2009)
16 – hereinafter referred to as the *Final Order on the Application* – describes the HWPF as
17 approved before this amendment. If the Council approves Amendment #1, the facility
18 description would be modified as described below.

Turbines

19
20 The Council previously approved construction of up to 60 turbines at the HWPF. The
21 amendment would increase the number of turbines to not more than 134. The certificate
22 holder has not yet selected a turbine type for construction. The Council previously approved
23 the use of wind turbines with a peak generating capacity of up to 3.0 MW each, as specified
24 by Condition 26. The proposed amendment would authorize an increase in the combined peak
25 generating capacity of the facility up to 201 MW.

Power Collection System

26
27 The Council previously approved construction of up to 18.1 miles of 34.5-kV electric
28 collector cables to connect the turbines to a facility substation. The proposed amendment
29 would increase the overall length of the collector system by 32.7 miles. Most of the collector
30 system would be installed underground, but segments of the collector system could be located
31 aboveground. The maximum length of aboveground segments of the collector system would
32 increase from approximately 5.4 miles to not more than 15.2 miles. Condition 85 limits the
33 maximum length of aboveground collector line segments to no more than 30 percent of the
34 total length of the collector system. Up to 80 surface junction boxes would be installed to
35 provide service access to the underground collector lines.⁸

Control System

36
37 The Council previously approved a fiber optic Supervisory, Control and Data
38 Acquisition (SCADA) system to link operating data from the wind turbines to the central

⁸ A maximum of 34 junction boxes were assumed for the previously-approved facility (*Final Order on the Application*, p. 18). In the amendment request, a maximum of 46 junction boxes would be constructed in the proposed expansion area (Request for Amendment #1, Attachment 7).

1 control terminal at the Operations & Maintenance (O&M) facility. The SCADA lines follow
2 the same segment routes as the collector system. Where underground, communications lines
3 would be placed in the same trenches as the collector lines, and aboveground communications
4 lines would run on the same power poles as the collector lines. The Council previously
5 approved up to 18.1 miles of SCADA lines. The amendment would authorize the construction
6 of up to 35.1 miles of new SCADA lines in the proposed expansion area (increasing the total
7 maximum length of the SCADA system to 53.2 miles).

8 **Substation and Interconnection**

9 The proposed amendment would authorize the construction of an additional collector
10 substation. The certificate holder would have the option of connecting the collector lines from
11 the new turbines to the previously-approved substation near Butler Grade Road (Helix
12 Substation) or to a new substation within the proposed expansion area near Juniper Canyon
13 Road (currently unnamed).⁹ The new substation would be connected to the previously-
14 approved substation by a 230-kV transmission line.¹⁰

15 The Council previously approved an aboveground 230-kV transmission line up to 15
16 miles in length to connect the facility substation to an interconnection station. The maximum
17 length of 230-kV transmission line at the HWPF (including the optional 230-kV connection to
18 a new substation) would not increase under the proposed amendment.¹¹ The power generated
19 by the proposed HWPF would connect to the regional transmission grid through either the
20 existing 230-kV transmission line owned by PacifiCorp or the existing 500-kV transmission
21 line owned by the Bonneville Power Administration (BPA). In either case, the interconnection
22 stations are not considered to be related or supporting facilities. The amendment would,
23 however, expand the previously-approved site boundary near the interconnection point to
24 provide greater flexibility for connecting the facility to the regional power system.¹²

25 **Meteorological Towers**

26 The Council previously approved the construction of up to two meteorological (met)
27 towers. The proposed amendment would authorize the construction of two additional met
28 towers in the new area.

29 **O&M Facility**

30 The Council previously approved the construction of an O&M facility, consisting of
31 an 8,000-square-foot one-story building on a 3-acre site, including a fenced and graveled area
32 for parking and storage. The proposed amendment would give the certificate holder the option
33 of building a second O&M facility. The new O&M facility would be similar to the
34 previously-approved facility in building footprint and site area. The new facility would be
35 located within the proposed expansion area.¹³

⁹ The proposed location of the new substation is shown in Figures 2 and 3 (Request for Amendment #1, Attachment 1).

¹⁰ Email from Chase Whitney, December 2, 2010. If a second substation is not built, an aboveground 34.5-kV collector system would carry the power generated by the turbines in the expansion area to the previously-approved Helix Substation. This collector system may include two parallel, double-circuit 34.5-kV lines.

¹¹ Request for Amendment #1, Section 1, p. 3.

¹² Request for Amendment #1, Section 4, p. 4, and Attachment 1, Figure 1.

¹³ The proposed location of the new O&M facility is shown in Figures 2 and 3 (Request for Amendment #1, Attachment 1).

1 **Access Roads**

2 The Council previously approved the construction of up to 16.2 miles of new access
3 roads and the widening of up to 0.6 miles of existing private roads. Permanent facility access
4 roads would be 20 feet wide (including shoulders). The proposed amendment would authorize
5 the construction of 31.2 miles of additional gravel access roads and the widening of up to 0.7
6 miles of existing private roads within the new area. Existing cattle guards would be replaced,
7 as necessary, to accommodate wider roads. The amendment would increase the total
8 maximum length of new access roads at the HWPF to 47.4 miles.

9 **Construction Disturbance Areas**

10 The proposed amendment would increase the total area of laydown and staging areas
11 during facility construction. The amendment would authorize up to 18 additional 2-acre
12 construction areas located along the new turbine strings. All areas of construction disturbance
13 (whether previously approved or authorized under this amendment) would be restored after
14 construction is completed in accordance with the *Revegetation Plan* (incorporated in
15 Condition 89).

16 **Site and Site Boundary**

17 As defined by OAR 345-001-0010, the “site boundary” is the perimeter of the site of
18 the energy facility, its related or supporting facilities, all temporary laydown and staging areas
19 and all corridors and micrositing corridors.¹⁴ The amendment request describes the proposed
20 expansion area by Township, Range, Section and Quarter-quarter section.¹⁵ There are
21 approximately 7,586 acres within the previously-approved facility. There would be
22 approximately 20,613 acres within the HWPF site boundary under the proposed
23 amendment.¹⁶ The certificate holder is authorized to construct and operate the HWPF within
24 the site boundary, subject to the terms and conditions of the site certificate and subject to
25 long-term lease agreements with the landowners of the property within the site boundary.

IV. THE COUNCIL’S SITING STANDARDS: FINDINGS AND CONCLUSIONS

26 The Council must decide whether the amendment complies with the facility siting
27 standards adopted by the Council. In addition, the Council must impose conditions for the
28 protection of the public health and safety, conditions for the time of commencement and
29 completion of construction and conditions to ensure compliance with the standards, statutes
30 and rules addressed in the project order. ORS 469.401(2). If the Council approves the
31 amendment expanding the facility, the site certificate would bind the certificate holder to
32 comply with all conditions of the site certificate, as amended, and those conditions would
33 apply to the previously-approved facility components and to the components within the
34 expansion area.

35 The Council is not authorized to determine compliance with regulatory programs that
36 have been delegated to another state agency by the federal government. ORS 469.503(3).

¹⁴ The facility “site,” as defined under ORS 469.300, includes all land upon which the energy facility and its related or supporting facilities are located.

¹⁵ Request for Amendment #1, Section 4, pp. 6-10. The location of the expansion area is shown on Figure 1 (Request for Amendment #1, Attachment 1).

¹⁶ Request for Amendment #1, Section 1, p. 3, and Attachment 4, Table 3.

1 Nevertheless, the Council may consider these programs in the context of its own standards to
2 ensure public health and safety, resource efficiency and protection of the environment.

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

1. General Standard of Review

6 **OAR 345-022-0000**

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

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

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

25 * * *

26 We address the requirements of OAR 345-022-0000 in the findings of fact, reasoning,
27 conditions and conclusions of law discussed in the sections that follow. Upon consideration of
28 all of the evidence in the record, we state our general conclusion regarding the amendment
29 request in Section VII.

2. Standards about the Applicants

(a) Organizational Expertise

30 **OAR 345-022-0010**

31 *(1) To issue a site certificate, the Council must find that the applicant has the*
32 *organizational expertise to construct, operate and retire the proposed facility in*
33 *compliance with Council standards and conditions of the site certificate. To*
34 *conclude that the applicant has this expertise, the Council must find that the*
35 *applicant has demonstrated the ability to design, construct and operate the*
36 *proposed facility in compliance with site certificate conditions and in a manner*
37 *that protects public health and safety and has demonstrated the ability to restore*
38 *the site to a useful, non-hazardous condition. The Council may consider the*

1 *applicant's experience, the applicant's access to technical expertise and the*
2 *applicant's past performance in constructing, operating and retiring other*
3 *facilities, including, but not limited to, the number and severity of regulatory*
4 *citations issued to the applicant.*

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

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

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

Findings of Fact

24 In the *Final Order on the Application*, the Council found that IBR had the
25 organizational expertise to construct, operate and retire the proposed HWPF in compliance
26 with Council standards and the conditions of the site certificate.¹⁷ Those findings are
27 incorporated herein by this reference. The applicants request a transfer of the site certificate
28 from IBR to Helix Wind Power Facility LLC, a wholly-owned subsidiary of IBR. IBR would
29 provide its expertise to the subsidiary for the construction and operation of the HWPF.

30 The Council has previously found that IBR or its subsidiaries have the organizational
31 expertise to construct and operate other wind energy facilities in Oregon, including the
32 Leaning Juniper II Wind Power Facility and the Montague Wind Power Facility.¹⁸ IBR,
33 through its subsidiary, Klondike Wind Power III LLC, is currently operating the Klondike III
34 Wind Project in full compliance with its site certificate.

35 In the *Final Order on the Application*, the Council found that the certificate holder
36 would rely on third-party permits to construct the HWPF. The Council found that the third-
37 party contractors had a reasonable likelihood of obtaining the necessary permits and that the
38 certificate holder had a reasonable likelihood of entering into a contractual or other

¹⁷ *Final Order on the Application*, pp. 14-16.

¹⁸ *Final Order on the Amendment #1 for the Leaning Juniper II Wind Power Facility* (November 20, 2009), p. 11; *Final Order on the Application for the Montague Wind Power Facility* (September 20, 2010), pp. 14-17.

1 arrangement with third parties for access to resources secured by third-party permits.¹⁹ The
2 proposed amendment would not affect these findings. Condition 28 requires the certificate
3 holder to provide confirmation to the Department before beginning construction that the third
4 parties have obtained the necessary permits and that the certificate holder has a contract or
5 other arrangement with the third parties for access to the resources secured by the permits.

Conclusions of Law

6 For the reasons discussed above and subject to the site certificate conditions described
7 herein, the Council concludes that the proposed transferee, Helix Wind Power Facility LLC,
8 would comply with the Organizational Expertise Standard if Amendment #1 were approved.

(b) Retirement and Financial Assurance

OAR 345-022-0050

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

10
11 *(1) The site, taking into account mitigation, can be restored adequately to a useful,*
12 *non-hazardous condition following permanent cessation of construction or*
13 *operation of the facility.*

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

Findings of Fact

A. Retirement

17 In the *Final Order on the Application*, the Council found that the HWPF site could be
18 restored adequately to a useful, non-hazardous condition following permanent cessation of
19 construction or operation of the facility.²⁰ Those findings are incorporated herein by this
20 reference. The Council found that value of the financial assurance bond or letter of credit for
21 restoring the site of the proposed HWPF would not exceed \$6.119 million in 2nd Quarter 2009
22 dollars.²¹ The Council found that the applicant had demonstrated a reasonable likelihood of
23 obtaining a bond or letter of credit for that amount.

24 Construction of the additional facility components described in the amendment request
25 would increase the site restoration cost but would not change the types of work involved in
26 site restoration.²² The proposed amendment would authorize the construction of additional
27 wind turbines and related components and would expand the site. The amendment would
28 increase the length of aboveground segments of the collector and SCADA system and would
29 increase the number of junction boxes. The amendment would authorize construction of an
30 optional 230-kV transmission line segment (although the maximum length of 230-kV
31 transmission lines would not increase). The amendment would increase the cumulative miles
32 of access roads at the facility and would increase the area of temporary disturbance during
33 construction. The amendment would authorize the optional construction of an additional

¹⁹ *Final Order on the Application*, pp. 14-15.

²⁰ *Final Order on the Application*, pp. 16-18.

²¹ *Final Order on the Application*, p. 20.

²² Site restoration work is described in the *Final Order on the Application*, p. 17.

1 O&M facility. The amendment would authorize the optional construction of a second
2 substation and would increase the permitted number of met towers from two to four. The
3 Council finds that the HWPF site could be restored to a useful, non-hazardous condition if the
4 amendment were approved.

B. Estimated Cost of Site Restoration

5 In the amendment request, the applicants estimate the cost of site restoration within
6 the proposed expansion area.²³ The amendment request proposes an increase in the maximum
7 number of turbines authorized for construction at the HWPF from 60 (previously authorized)
8 to 134, which is an increase of 74 turbines. If the Council approves the amendment request,
9 the certificate holder would be authorized to build up to 134 turbines anywhere within the
10 expanded site boundary, subject to the conditions of the site certificate. For the purpose of the
11 site restoration estimate, the applicants assume that 91 turbines would be built within the
12 expansion area; that is, their cost estimate assumes that the final design configuration in the
13 expansion area would include 17 of the previously-authorized turbines (which would be
14 “moved” into the expansion area) plus 74 turbines that would be authorized by the proposed
15 amendment. The applicants have not submitted a revised layout of facility components within
16 in the previously-approved site boundary. The combined site restoration estimates for the
17 previously-approved HWPF as shown in the *Final Order on the Application* (60 turbines)
18 plus the proposed expansion as shown in the amendment request (based on 91 turbines),
19 therefore, overstate the likely site restoration cost for the facility as a whole because they are
20 based on 151 turbines rather than the 134 turbines that would be authorized for the facility as
21 a whole if the amendment were approved.²⁴

22 The Department independently calculated a revised cost estimate for the entire facility
23 by using a conservative approach. To generate the cost estimate, the Department added the
24 itemized costs pertaining to components in the previously-approved HWPF to the costs
25 pertaining to components proposed to be located within the expansion area. Costs for items
26 that are calculated on a per-turbine basis or per-component basis were estimated based on the
27 maximum number of turbines or components that would be authorized under the amendment
28 (134 turbines). Other items—such as roadway lengths, per-string laydown areas and length of
29 collector line—were estimated by adding the units shown in the *Final Order on the*
30 *Application* to the units shown in the amendment request (based on a layout of 91 turbines in
31 the expansion area). For these items, the units are subject to double-counting, and the estimate
32 therefore likely overstates what the actual retirement cost would be.

33 The assumptions underlying the Department’s revised HWPF cost estimate are as
34 follows. The change in each item from estimate presented in the *Final Order on the*
35 *Application* is shown in italics:

²³ Request for Amendment #1, Section 4, pp. 25-26, and Attachment 7.

²⁴ The cost estimate shown in Table 2 of the *Final Order on the Application* is \$6,119,000. The applicants’ cost estimate for the proposed expansion, shown in Attachment 7 of the Request for Amendment #1, is \$8,159,000. The combined total is \$14,278,000.

1 Per-component assumptions:

- 2 • 134 GE 1.5-MW turbines, each weighing 222 U.S. tons, including the weight
3 of steel in the towers and nacelles (*74 additional turbines*).²⁵
- 4 • Each turbine has a foundation containing 26 cubic yards of concrete above
5 three feet below grade (*no change*).
- 6 • Each turbine has an external transformer, supported on a concrete foundation
7 containing 13 cubic yards of concrete above three feet below grade (*no*
8 *change*).
- 9 • 4 met towers (*two additional towers*).²⁶
- 10 • Each met tower is supported on a concrete foundation containing 44 cubic
11 yards of concrete above three feet below grade (*no change*).
- 12 • 2 substations (*one additional substation*).²⁷
- 13 • 2 O&M facilities (*one additional O&M facility*).²⁸

14 Assumptions that are subject to double-counting:

- 15 • 5.4 miles of double-circuit aboveground 34.5-kV collector line (*no change*).²⁹
- 16 • 10 miles of single-circuit aboveground 34.5-kV collector line (*10 additional*
17 *miles*).³⁰
- 18 • 80 junction boxes (*46 new boxes*).³¹
- 19 • 15 miles of single-circuit 230-kV transmission line (consisting of three wires,
20 plus one fiber optic SCADA wire and one lightning shield wire) on up to 165
21 H-type poles spaced 500 feet apart (*no additional miles*).³²
- 22 • 47.4 miles of new access roads (*31.2 additional miles*).³³

²⁵ Request for Amendment #1, Section 4, p. 2.

²⁶ Request for Amendment #1, Section 4, p. 6.

²⁷ Request for Amendment #1, Section 4, p. 4.

²⁸ Request for Amendment #1, Section 4, p. 6.

²⁹ The Department assumed that there would be 5.4 miles of double-circuit collector line in the previously-approved area (*Final Order on the Application*, p. 18) The Department assumed that aboveground double-circuit collector lines would consist of six wires plus one fiber optic SCADA wire and one lightning shield wire. The assumed pole spacing for the 34.5-kV lines was reduced from 350 feet (assumed in the *Final Order on the Application*) to 200 feet (Revised Table 1, Note 5, Certificate Holder Responses, November 2, 2010), or 26 pole locations per mile.

³⁰ Request for Amendment #1, Section 3, Table 3-1, and Certificate Holder Responses (November 2, 2010), Attachment 1, Revised Table 1, Note 6. The Department assumed that aboveground single-circuit collector lines would consist of three wires plus one fiber optic SCADA wire and one lightning shield wire.

³¹ Request for Amendment #1, Attachment 7.

³² The assumed pole spacing for the 230-kV transmission lines was increased from 350 feet (assumed in the *Final Order on the Application*) to 500 feet (Revised Table 1, Note 7, Certificate Holder Responses, November 2, 2010), or 11 pole locations per mile. Total length of 230-kV transmission line includes the previously-approved interconnection line plus the proposed optional connector line between substations, assuming a second substation is built in the expansion area (Certificate Holder Responses, November 30, 2010).

³³ Request for Amendment #1, Section 4, p. 5.

1 • 1,037 total acres of temporary disturbance caused by site restoration activities
2 to areas outside the footprint of facility components (*545 additional acres*).³⁴

3 Using the estimating procedure outlined in the Department’s updated draft “Site
4 Restoration Cost Estimating Guide,” the Department calculated a revised cost estimate for the
5 HWPF.³⁵ The estimate assumes a facility configuration that would result in the highest site
6 restoration cost consistent with the maximum design flexibility requested by the applicants.
7 Using these conservative assumptions, the Department estimated the site restoration cost for
8 the proposed expanded HWPF as shown in Table 1.³⁶

Table 1: Cost Estimate for Facility Site Restoration (1st Quarter 2011 dollars)

| Cost Estimate Component | Quantity | Unit Cost | Extension |
|---|-----------------|------------------|------------------|
| <u>Turbines</u> | | | |
| Disconnect electrical and ready for disassembly (per turbine) | 134 | \$212 | \$28,408 |
| Remove turbine blades, hub and nacelle (per turbine) | 134 | \$5,900 | \$790,600 |
| Remove turbine towers (per ton of steel) | 29,748 | \$82 | \$2,439,336 |
| Remove turbine foundation (per cubic yard of concrete) | 3,484 | \$52 | \$181,168 |
| Remove pad transformer and foundation (per turbine) | 134 | \$2,764 | \$370,376 |
| Restore turbine site, including spur road (per turbine) | 134 | \$611 | \$81,874 |
| <u>Met Towers</u> | | | |
| Dismantle and dispose of met towers (per tower) | 4 | \$10,251 | \$41,004 |
| <u>Collector Substations and O&M Facilities</u> | | | |
| Dismantle and dispose of collector substation | 2 | \$112,283 | \$224,566 |
| Dismantle and dispose of O&M Facility | 2 | \$77,185 | \$154,370 |
| <u>Transmission Lines</u> | | | |
| Remove 230-kV transmission line (per mile) | 15 | \$25,453 | \$381,795 |
| Remove single-circuit 34.5-kV collector (per mile) | 10 | \$5,454 | \$54,540 |
| Remove double-circuit 34.5-kV collector (per mile) | 5.4 | \$6,182 | \$33,383 |
| Remove junction boxes (each) | 80 | \$51 | \$4,080 |
| <u>Access Roads</u> | | | |
| Remove roads, grade and seed (per mile) | 47.4 | \$29,426 | \$1,394,792 |
| <u>Temporary Disturbance Areas</u> | | | |
| Grade and seed temporarily disturbed areas (per acre) | 380 | \$8,706 | \$3,308,280 |
| Restore temporarily disturbed areas, seeding only (per acre) | 657 | \$3,398 | \$2,232,486 |

³⁴ The Department assumes that site restoration activities would cause temporary disturbance to areas outside the footprint of facility components. Calculation of areas of temporary disturbance was based on Revised Table 2, Certificate Holder Responses (November 2, 2010) and Revised Table C-3 (Application Supplement, Appendix B) with adjustments to tower laydown areas and spur roads based on a total of 134 turbines. Areas assumed to need grading and seeding include areas around O&M facilities, substations, met towers, spur roads, and temporary widening of existing and new access roads. Areas assumed to need seeding only include laydown areas, crane paths, and transmission line supports and temporary access roads.

³⁵ The Department updated the Cost Guide in 2010.

³⁶ The Site Restoration Cost Estimating Guide (2010) computes unit costs in 2nd Quarter 2010 dollars. The total estimate shown in the table includes an adjustment to 1st Quarter 2011 dollars by application of the Gross Domestic Product (GDP) Implicit Price Deflator (projected) for 1st Quarter 2011 divided by the GDP Implicit Price Deflator for 2nd Quarter 2010, or 111.7202/110.485.

| | | | |
|---|---|-----------|---------------------|
| General Costs | | | |
| Permits, mobilization, engineering and overhead | 1 | \$460,997 | \$460,997 |
| Subtotal | | | \$12,182,055 |
| Subtotal adjusted to 1 st Quarter 2011 dollars | | 1.01118 | \$12,318,248 |
| Performance Bond | | 1% | \$123,182 |
| Gross Cost | | | \$12,441,430 |
| Administration and Project Management | | 10% | \$1,244,143 |
| Future Developments Contingency | | 10% | \$1,244,143 |
| Total Site Restoration Estimate | | | \$14,929,716 |
| Site Restoration Estimate (rounded to nearest \$1,000) | | | \$14,930,000 |

1 The Council finds that the HWPF site, taking into account mitigation and including
2 the changes proposed in the amendment request, can be restored adequately to a useful, non-
3 hazardous condition following permanent cessation of construction or operation of the
4 facility. The Council finds that \$14.930 million (1st Quarter 2011 dollars) adjusted annually as
5 described in revised Condition 31 is a conservative estimate of the cost to restore the
6 expanded HWPF site to a useful, non-hazardous condition.

C. Ability of the Applicant to Obtain a Bond or Letter of Credit

7 The proposed amendment would transfer the site certificate to Helix Wind Power
8 Facility LLC. The applicants provided a letter from Berkley Regional Insurance Company
9 stating that Iberdrola Renewables and its subsidiary, Helix Wind Power Facility LLC, are
10 valued clients and that there is available capacity under their current line of credit to support a
11 bond for \$15.2 million.³⁷ The letter does not constitute a firm commitment by Berkley
12 Regional Insurance Company to issue a bond or letter of credit, but it is evidence that the
13 certificate holder could obtain the necessary financial assurance for the HWPF to satisfy the
14 Council's standard. The Council finds that the applicants have demonstrated a reasonable
15 likelihood of obtaining a bond or letter of credit, satisfactory to the Council, in an amount
16 adequate to restore the HWPF site, including the proposed expansion area, to a useful, non-
17 hazardous condition.

Conclusions of Law

18 Based on the findings discussed above and subject to the site certificate conditions
19 described herein, the Council concludes that the certificate holder would meet the Retirement
20 and Financial Assurance Standard if the Request for Amendment #1 were approved.

3. Standards about the Impacts of Construction and Operation

(a) Land Use

OAR 345-022-0030

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

24 *(2) The Council shall find that a proposed facility complies with section (1) if:*
25

³⁷ Letter from Darella E. White, Attorney-in-Fact for Berkley Regional Insurance Company, December 2, 2010.

1 ***

2 (b) *The applicant elects to obtain a Council determination under ORS*
3 *469.504(1)(b) and the Council determines that:*

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

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

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

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

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

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

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

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

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

41 (B) *The significant environmental, economic, social and energy*
42 *consequences anticipated as a result of the proposed facility have been identified*

1 *and adverse impacts will be mitigated in accordance with rules of the Council*
2 *applicable to the siting of the proposed facility; and*

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

5 * * *

Findings of Fact

6 With respect to the area that would be added to the site by the proposed amendment,
7 the Council applies the applicable substantive criteria in effect on the date the certificate
8 holder submitted the amendment request. The Umatilla County Planning Department
9 identified the applicable substantive criteria in effect as of August 12, 2010 (the date the
10 amendment request was submitted).³⁸

11 For the most part, the applicable criteria have not changed during the two years since
12 IBR submitted the preliminary site certificate application for the HWPF. The Council applied
13 the following sections of the Umatilla County Development Code (UCDC) in making
14 findings on the HWPF wind power generation facility (as described in the site certificate
15 application): UCDC Sections 152.010, 152.011, 152.016, 152.017, 152.018, 152.060(F),
16 152.061, 152.063(C), (E) and (F), 152.545 through 152.562, and 152.610 through 152.617.³⁹
17 These same county ordinances are applicable to the proposed amendment.⁴⁰ In commenting
18 on the amendment request, the Umatilla County Planning Department noted that UCDC
19 Section 152.616(HHH)(2)(J) has been updated to reference administrative rules adopted by
20 the Land Conservation and Development Commission in OAR 660-033-0130(37), and the
21 county has removed the previous requirement for a Goal 3 exception for projects that remove
22 more than 20 acres of Exclusive Farm Use (EFU) land from farm use.

23 The Planning Department noted that a transmission line with towers less than 200 feet
24 in height is allowed as a Land Use Decision under UCDC Section 152.059(C) subject to
25 UCDC 152.617(II)(7) and that UCDC Sections 152.010, 152.011, 152.016, 152.017, 152.018,
26 and 152.545 through 152.562 also may apply.⁴¹ The Council applied these same criteria to the
27 HWPF transmission line in the previously approved area.⁴²

28 In addition to applicable sections of the UCDC, the Council previously addressed
29 policies in the Umatilla County Comprehensive Plan (UCCP) as applicable local approval
30 standards.⁴³ Specifically, the Council addressed the following policies:

31 Citizen Involvement: Policy 1 and Policy 5

32 Agriculture: Policies 1, 8 and 17

33 Open Space, Scenic and Historic Areas, and Natural Resources: Policies 1(a), 5(a and b),
34 6(a), 8(a), 9(a), 10(c, d and e), 20(a), 20(b) (1-8), 22, 23(a), 24(a), 26, 37 and 42(a)

35 Air, Land and Water Quality: Policies, 1, 7 and 8

³⁸ Letter from Carol Johnson, Umatilla County Planning Department, September 22, 2010.

³⁹ *Final Order on the Application*, pp. 23-43. UCDC Section 152.003 defines a “wind power generation facility” as described in the *Final Order on the Application* at page 23.

⁴⁰ Letter from Carol Johnson, Umatilla County Planning Department, September 22, 2010.

⁴¹ Letter from Carol Johnson, Umatilla County Planning Department, September 22, 2010.

⁴² *Final Order on the Application*, p. 24.

⁴³ *Final Order on the Application*, p. 24.

1 Natural Hazards: Policies 1 and 4
2 Recreational Needs: Policy 1
3 Economy of the County: Policies 1, 4 and 8(a-f)
4 Public Facilities and Services: Policies 1(a-d), 2, 9 and 19
5 Transportation: Policy 20
6 Energy Conservation: Policy 1

7 In commenting on the amendment request, the Planning Department identified the
8 UCCP policies listed above and, in addition, Open Space, Scenic and Historic Areas, and
9 Natural Resources Policies 38(a-c) and 39(a).⁴⁴

10 The Planning Department noted that the Umatilla County Transportation System Plan
11 (TSP) has been adopted as part of the UCCP and is implemented through the UCDC. New
12 projects not specifically identified in the TSP would need to be added to the TSP and
13 consequently would require an amendment of the UCCP. The Planning Department explained
14 that improvements to private roads and minor improvements of public roads within the
15 existing public rights-of-way would not trigger an amendment of the TSP.⁴⁵ Nevertheless, the
16 certificate holder is required to work with the county Public Works Director to identify
17 specific road improvements necessary to accommodate heavy loads on rural county roads and
18 to satisfy the requirements for access point permits and road building requirements for project
19 access roads (Conditions 40 and 41).

20 The Planning Department noted that a Zoning Permit would be needed prior to land
21 development or project construction.⁴⁶ The zoning permit requirement is addressed under
22 UCDC Sections 152.612(D) and 152.003. The Council addressed the county zoning permit
23 requirement in its previous findings on the HWPF.⁴⁷

24 The applicants provided information regarding compliance with the Council's Land
25 Use Standard in Section 4 of the amendment request and in response to the Department's
26 requests for additional information.⁴⁸ In the sections that follow, we discuss the land use
27 findings regarding the proposed expansion of the HWPF facility.

28 **UCDC Section 152.010**

29 UCDC Section 152.010 addresses access to buildings and structures. The ordinance
30 applies to the wind power generation facility and to the transmission lines. In the *Final Order*
31 *on the Application*, the Council found that the proposed HWPF O&M building is a "building"
32 and all other aboveground components of the proposed HWPF are "structures" under the
33 definitions in UCDC Section 152.003. The proposed amendment would authorize
34 construction of an additional O&M building as well as other structures described above,
35 beginning at page 19. The ordinance requires that buildings be constructed "on a lot that abuts
36 a public street or a recorded easement" and requires structures to be "located on lots as to
37 provide safe and convenient access for servicing, fire protection, and required off-street
38 parking."

⁴⁴ Letter from Carol Johnson, Umatilla County Planning Department, September 22, 2010.

⁴⁵ Email from Carol Johnson, Umatilla County Planning Department, September 24, 2010.

⁴⁶ Letter from Carol Johnson, Umatilla County Planning Department, September 22, 2010.

⁴⁷ *Final Order on the Application*, pp. 52-53.

⁴⁸ Request for Amendment #1, Section 4, pp. 15-21, and Certificate Holder Responses, Attachment 5 Supplemental Land Use Analysis (November 2, 2010).

1 UCDC Section 152.010 also addresses “private driveways and easements that enter
2 onto a public or county road or state or federal highway.” The ordinance requires construction
3 of such driveways and easements to be “of at least similar if not the same material as the
4 public or county road or state or federal highway to protect the edge of the road from rapid
5 deterioration” and requires such improvements to extend at least 25 feet back from the edge of
6 the existing travel lane surface.

7 In UCDC Section 152.010, the county has established facility design requirements that
8 may be outside the Council’s jurisdiction under ORS 469.401(4). Nevertheless, the county has
9 identified the ordinance as one of the applicable substantive criteria under ORS 469.504(5)
10 for the wind power generation facility and the transmission line. Condition 39 requires the
11 certificate holder to design and construct the facility in compliance with the county design
12 requirements as described in this ordinance. Because the site certificate binds the certificate
13 holder to construct the facility in accordance with the site certificate conditions, the Council
14 finds that Condition 39 would ensure compliance with UCDC Section 152.010.

15 **UCDC Section 152.011**

16 UCDC Section 152.011 addresses “vision clearance” areas that apply to intersections
17 of two streets or a street and a railroad and precludes “any planting, wall, structure, or
18 obstruction of any kind exceeding two and one-half feet in height measured from the grade of
19 the street centerline” within the vision clearance area. For an agricultural zone, the vision
20 clearance distance is 30 feet back from the intersection.

21 In UCDC Section 152.011, the county has established a facility design requirement
22 that may be outside the Council’s jurisdiction under ORS 469.401(4). Nevertheless, the
23 county has identified the ordinance as one of the applicable substantive criteria under ORS
24 469.504(5) for the wind power generation facility and the transmission lines. Condition 39
25 requires the certificate holder to design and construct the facility in compliance with the
26 county design requirements as described in this ordinance. Because the site certificate binds
27 the certificate holder to construct the facility in accordance with the site certificate conditions,
28 the Council finds that Condition 39 would ensure compliance with UCDC Section 152.011.

29 **UCDC Section 152.016**

30 UCDC Section 152.016 addresses standards for maintenance, removal and
31 replacement of riparian vegetation along streams, lakes and wetlands. In addition, the
32 ordinance requires “minor drainage improvements necessary to ensure effective drainage on
33 surrounding agricultural lands” to be “coordinated with the Oregon Department of Fish and
34 Wildlife and Soil and Water Conservation District.” The ordinance applies to the wind power
35 generation facility and to the transmission lines.

36 In the site certificate application, IBR identified streams and wetlands within the site
37 boundary of the previously-approved facility.⁴⁹ The Council found that there were
38 approximately 8 acres of riparian habitat within the previously-approved site boundary and
39 that construction within that area would temporarily disturb approximately 0.1 acres and
40 permanently disturb less than 0.01 acres of riparian habitat. Condition 91 requires the
41 certificate holder to locate facility components to avoid or minimize disturbance to high

⁴⁹ Wetland Delineation Report (App, Exhibit J) with revisions (App Supp, Appendix A, Attachment 8, and Appendix B, Attachment 13).

1 quality native habitat, which includes riparian habitat. The site certificate requires restoration
2 of temporarily disturbed habitat and mitigation for permanent habitat impact (Conditions 89
3 and 90). Proposed plans for mitigation of temporary and permanent habitat disturbances were
4 developed in consultation with ODFW. Condition 40 requires consultation with ODFW and
5 the local Soil and Water Conservation District for any minor drainage improvements
6 necessary to ensure effective drainage on surrounding agricultural lands.

7 The proposed amendment would authorize construction of an aboveground
8 transmission line segment connecting the optional new substation to the previously-approved
9 substation. If the connecting transmission line is built, construction would temporarily disturb
10 0.05 acres and permanently disturb less than 0.01 acres of riparian habitat located within the
11 previously-approved site boundary.⁵⁰ There is no riparian habitat within the expansion area.⁵¹
12 Conditions 40, 89, 90 and 91 would apply to the optional transmission line segment as well as
13 to any other construction that might affect riparian habitat. Because the site certificate binds
14 the certificate holder to construct the facility in accordance with the site certificate conditions,
15 the Council finds that Conditions 40, 89, 90 and 91 would ensure compliance with UCDC
16 Section 152.016.

17 **UCDC Section 152.017**

18 UCDC Section 152.017 addresses the public transportation system and conditions
19 applicable to development proposals that are likely to generate a significant increase in trip
20 generation. The ordinance applies to the wind power generation facility and to the
21 transmission lines. In the *Final Order on the Application*, the Council found that construction
22 of the facility as previously-approved would result in a temporary increase in vehicle traffic to
23 and from the facility site that would be considered significant under the ordinance but that
24 there would be no significant change in trip generation during facility operation.⁵² For a
25 development that is likely to generate a significant increase in trip generation, the ordinance
26 requires “adequate information, such as a traffic impact study or traffic counts, to demonstrate
27 the level of impact to the surrounding system.” The ordinance provides for mitigation of the
28 traffic impacts attributable to the project.

29 The proposed amendment does not involve new or modified public road facilities.⁵³
30 Traffic delays during construction may occur when trucks deliver turbines and other
31 equipment to the site, but current road usage is low. The applicants have described the
32 impacts of the proposed expansion of the HWPF in Section 4 of the amendment request.⁵⁴
33 The applicants estimate that construction of the HWPF, including the proposed expansion,
34 would increase daily truck trips during construction to an average of 35 trips per day
35 (compared to an estimated 30 trips per day for construction of the previously-approved
36 HWPF, without the proposed expansion). The applicants note that construction of the
37 expanded facility would extend the construction period and the duration of increased traffic
38 on local roads due to construction of the facility. Assist vehicles may be needed to haul

⁵⁰ Response to RAI P1, Certificate Holder Responses (November 2, 2010).

⁵¹ Certificate Holder Responses (November 2, 2010), Attachment 1, Revised Table 3.

⁵² *Final Order on the Application*, p. 27.

⁵³ Certificate Holder Responses (November 2, 2010), Attachment 5, pp. 19-20.

⁵⁴ Request for Amendment #1, Section 4, pp. 43-44.

1 turbine components up Butler Grade Road and may be needed on other roads. Assist vehicles,
2 pilot cars and loaded trucks may need to park temporarily.⁵⁵

3 To minimize the potential adverse effect of construction traffic within the City of
4 Helix, the applicants propose two additional routes for construction traffic (using Dorran
5 Road and Hatch Grade Road) as shown in Figure 4 of the amendment request.⁵⁶ Condition 41
6 addresses possible public road modifications to accommodate construction traffic due to the
7 HWPF as previously approved. The applicants acknowledge that Condition 41 would also
8 apply to any modifications necessary to accommodate construction traffic associated with the
9 proposed expansion. Condition 71 requires traffic safety measures during construction.
10 Condition 72 requires the certificate holder to restore any county roads that are degraded by
11 construction traffic.

12 For the reasons discussed above and subject to Conditions 41, 71 and 72, the Council
13 finds that the expanded facility would comply with UCDC Section 152.017.

14 **UCDC Section 152.018**

15 UCDC Section 152.018 addresses measures to “manage access to land development
16 while preserving the flow of traffic in terms of safety, capacity, functional classification, and
17 level of service.” The ordinance describes the categorization of roadways in the county’s
18 Transportation System Plan. The ordinance implements access management policies for
19 properties that abut “arterials and collectors within the County,” including specific provisions
20 for corner clearance, joint use driveways and cross access easements and design of driveways
21 and access connections.

22 In UCDC Section 152.018, the county has established facility design requirements that
23 may be outside the Council’s jurisdiction under ORS 469.401(4). Nevertheless, the county has
24 identified the ordinance as one of the applicable substantive criteria under ORS 469.504(5)
25 for the wind power generation facility and the transmission lines. Condition 39 requires the
26 certificate holder to design and construct the facility in compliance with the county design
27 requirements as described in this ordinance. Because the site certificate binds the certificate
28 holder to construct the facility in accordance with the site certificate conditions, the Council
29 finds that Condition 39 would ensure compliance with UCDC Section 152.018.

30 **UCDC Section 152.060**

31 UCDC Section 152.060 lists land uses that “may be permitted conditionally via
32 administrative review” (conditional uses) in the county’s EFU zone. Specifically, UCDC
33 Section 152.060(F) provides that a “commercial utility facility for the purpose of generating
34 power for public use by sale” is an allowable use, subject to conditional use standards in
35 UCDC Sections 152.610 through 152.617. For “Wind Power Generation,” UCDC Section
36 152.060(F) cross-references UCDC Section 152.616(HHH). UCDC Section 152.003 defines a
37 “wind power generation facility” as follows:

38 ***WIND POWER GENERATION FACILITY.*** *An energy facility that consists of*
39 *one or more wind turbines or other such devices and their related or supporting*
40 *facilities that produce electric power from wind and are: (a) Connected to a*

⁵⁵ Response to RAI U2, Certificate Holder Responses (November 2, 2010).

⁵⁶ Request for Amendment #1, Attachment 1, Figure 4.

1 *common switching station, or (b) Constructed, maintained, or operated as a*
2 *contiguous group of devices.*

3 In the *Final Order on the Application*, the Council found that the HWPF, including its
4 related or supporting facilities, is a wind power generation facility under this definition.⁵⁷ The
5 Council found that the collector system and the facility substation are intrinsic components of
6 a “wind power generation facility” and are “related and supporting facilities” under the county
7 ordinance.⁵⁸ The proposed amendment would expand the HWPF but would not change the
8 type of land use. The Council finds that the proposed expanded facility is a wind power
9 generation facility according to the definition in UCDC Section 152.060.

10 **UCDC Section 152.061**

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

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

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

17 UCDC Section 152.061 provides for protection of accepted farm and forest
18 practices.⁵⁹ The ordinance applies to all conditional uses on EFU land, including a wind
19 generation facility. The Council has previously found that wind energy facilities on farm land
20 in Umatilla County and other counties do not force a significant change in accepted farm
21 practices on surrounding lands devoted to farm use and do not significantly increase the cost
22 of such farm practices.⁶⁰ In the *Final Order on the Application*, the Council found that the
23 HWPF would comply with UCDC Section 152.061.⁶¹ The Council finds that the HWPF,
24 including the expansion described in the amendment request, would not force a significant
25 change in accepted farm practices or significantly increase the cost of farm practices, for the
26 reasons discussed below and subject to the site certificate conditions described herein.

27 The land use analysis area for the proposed HWPF expansion area contains
28 approximately 39,591 acres, all of which is zoned EFU.⁶² The predominant agricultural use is
29 wheat farming, but other land is used for grazing and some land is enrolled in the
30 Conservation Reserve Program (CRP).⁶³ The permanent facility components proposed by the

⁵⁷ *Final Order on the Application*, p. 23.

⁵⁸ The UCDC does not define the “related or supporting facilities” that would be included within a “wind power generation facility.” A substation that is not a related or supporting facility might otherwise be analyzed as a “commercial utility facility” under UCDC Section 152.616(T) or Section 152.617(I)(C).

⁵⁹ The language of the ordinance is substantially the same as Land Conservation and Development Department administrative rule OAR 660-033-0130(5).

⁶⁰ Recent examples include the *Final Order on Amendment #4 of the Site Certificate for the Stateline Wind Project* (March 27, 2009), pp. 33-35, and the *Final Order on the Montague Wind Power Facility* (September 10, 2010), pp. 27-29.

⁶¹ *Final Order on the Application*, p. 28.

⁶² Certificate Holder Responses (November 2, 2010), Attachment 5, p. 2.

⁶³ Approximately 1,132 acres within the site boundary of the expansion area is developed or otherwise non-cultivated land. Certificate Holder Responses (November 2, 2010), Attachment 1, Revised Table 3.

1 amendment would occupy approximately 85 acres, or less than one percent of the farmland
2 within the analysis area.

3 Accepted farm practices in the area include soil preparation in the spring and fall,
4 sowing, fertilizing, pest and weed management and harvesting.⁶⁴ The applicants describe
5 “small-scale changes in agricultural practices on immediately surrounding lands” including
6 modification of harvest patterns, changing access points or routes to farm fields, or varying
7 application of fertilizers and other products to crops. The applicants note that these changes
8 would be temporary.

9 Site certificate conditions applicable to both the previously-approved components and
10 the proposed expanded facility address potential impacts on farm practices in the area.
11 Condition 38 requires the certificate holder to locate facility components and temporary
12 construction laydown and staging areas to minimize disturbance with farming operations.
13 Condition 42 requires the certificate holder to record a Covenant Not to Sue with regard to
14 generally accepted farming practices on adjacent farmland. Condition 89 requires the
15 certificate holder to implement a *Revegetation Plan* that includes weed control measures and
16 measures to correct for soil compaction on farmland. Condition 44 requires the certificate
17 holder to implement a weed control program during facility construction and operation to
18 reduce the risk of weed infestation in cultivated land and the associated cost to the farmer for
19 weed control. Conditions 77 and 82 require the certificate holder to implement erosion control
20 measures during construction and operation. Condition 37 requires the certificate holder to
21 consult with area landowners and lessees during construction and operation of the facility to
22 determine further measures to reduce or avoid any adverse impacts to farm practices on
23 surrounding lands and to avoid any increase in farming costs.

24 **UCDC Sections 152.063 (C), (E) and (F)**

25 UCDC Section 152.063(C) establishes side and rear yard setbacks. UCDC Section
26 153.003 defines “setback” as “the open yard space on a lot between any building and a lot line
27 or a line defining an access easement or road right-of-way.” This ordinance applies to the
28 previously-approved O&M building and to the proposed additional O&M building. UCDC
29 Section 152.063(C)(2) establishes a setback distance of 5 feet for “accessory buildings or
30 structures.” UCDC Section 152.003 defines “structure” more broadly than “building,” and if
31 the setback distance is applied to all “structures,” then it would apply to all aboveground
32 components of the HWPF, including the wind turbines.

33 UCDC Section 152.063(C)(3) provides that “special minimum yard setbacks may be
34 established for an approved conditional use to protect the public health, safety and welfare
35 and to mitigate possible adverse impacts to adjacent land uses.” UCDC Section
36 152.616(HHH)(5)(A) establishes a special setback for wind power generation facilities of
37 3,520 feet from “properties zoned residential use or designated on the Comprehensive Plan as
38 residential.” This setback distance is incorporated in Condition 43, which also includes safety
39 setback distances adopted by the Council.

40 UCDC Section 152.063(E) establishes setback distances from streams, lakes and
41 wetlands. The ordinance applies to “sewage disposal installations such as septic tanks and
42 drainfields” and to “all structures, buildings or similar permanent fixtures” and establishes a

⁶⁴ Certificate Holder Responses (November 2, 2010), Attachment 5, p. 2.

1 setback distance of 100 feet subject to specified exceptions. This ordinance applies to on-site
2 septic systems for the disposal of sewage from the O&M buildings. All structures that are
3 components of the proposed HWPF would be located at least 100 feet from any streams, lakes
4 or wetlands. Condition 39 requires the certificate holder to design and construct the facility in
5 compliance with the county design requirements as described in this ordinance.

6 UCDC Section 152.063(F) provides that “all development shall be subject to the
7 regulations contained in §§ 152.010 through 152.017, §§ 152.545 through 152.562, and to the
8 exceptions standards of §§ 152.570 through 152.577.” UCDC Sections 152.010, 152.011,
9 152.016 and 152.017 are discussed in the sections above.

10 UCDC Section 152.012 addresses outdoor storage in residential zones. This ordinance
11 does not apply because the proposed facility is not located within a residential zone.

12 UCDC Section 152.013 addresses mobile homes. This ordinance does not apply
13 because the applicant does not propose any mobile home as a component of the proposed
14 facility.

15 UCDC Section 152.014 addresses seasonal farm worker housing. This ordinance does
16 not apply because the applicant does not propose any seasonal farm worker housing as a
17 component of the proposed facility.

18 UCDC Section 152.015 addresses fences and provides that a zoning permit is not
19 required for construction of fences. The ordinance provides that there is no height limitation
20 on fences “except at corners of street intersections and service drives where vision clearance
21 requirements shall be met.” Vision clearance requirements are addressed by UCDC Section
22 152.011, discussed above. UCDC Section 152.015 requires that fences meet all Oregon
23 Uniform Building Code requirements.” Condition 39 requires the certificate holder to design
24 and construct the facility in compliance with the county design requirements as described in
25 this ordinance. Condition 53 requires the certificate holder to design and construct the
26 proposed facility in compliance with building code requirements.

27 Because the site certificate binds the certificate holder to construct the facility in
28 accordance with the site certificate conditions, the Council finds that Conditions 39, 43 and 53
29 would ensure compliance with UCDC Section 152.063(C) and (E) and the county ordinances
30 discussed above that are incorporated in UCDC Section 152.063(F). The other ordinances
31 made applicable to the proposed facility by incorporation in UCDC Section 152.063(F) are
32 discussed below.

33 **UCDC Sections 152.545 through 152.548**

34 UCDC Sections 152.545 through 152.548 establish requirements for the types of signs
35 allowed within different county zones and limitations on signs. Condition 97 requires the
36 certificate holder to design and construct the facility in compliance with the county design
37 requirements as described in these ordinances. Because the site certificate binds the certificate
38 holder to construct the facility in accordance with the site certificate conditions, the Council
39 finds that Condition 97 would ensure compliance with UCDC Sections 152.545 through
40 152.548.

1 **UCDC Sections 152.560 through 152.562**

2 UCDC Sections 152.560 through 152.562 establish requirements for off-street parking
3 and loading. For industrial uses, UCDC Section 152.560 requires one parking space per 200
4 square feet of floor space, plus one space per employee. If the Council approves the
5 amendment request, the facility could include two O&M buildings with a combined area of up
6 to 16,000 square feet. The facility operations staff would consist of up to 17 employees.⁶⁵ The
7 ordinance, therefore, requires at least 97 off-street parking spaces. Each O&M building would
8 be located within a 3-acre site that would include a fenced area for employee parking and
9 storage, providing adequate space for off-street parking.

10 UCDC Section 152.561 establishes a requirement for a loading area for schools and
11 limits the use of off-street parking areas for loading and unloading of merchandise. The
12 ordinance does not apply because the proposed facility is not a school and its operation would
13 not involve loading or unloading of merchandise.

14 UCDC Section 152.562 contains additional off-street parking and loading
15 requirements. Subsection (A) addresses a change of use of a lot or building and is not
16 applicable. Subsection (B) allows the Planning Commission or Hearings Officer to determine
17 requirements for types of buildings and uses not specifically listed. A wind power generation
18 facility is not specifically listed, and so this ordinance gives the Planning Commission (and in
19 this case the Council acting in its place) authority to determine off-street parking and loading
20 requirements for the HWPF. Subsections (C) and (D) are not applicable because they address
21 multiple uses of a single structure or parcel and joint use agreements among multiple owners.
22 Subsection (E) addresses off-street parking for dwellings and is not applicable. Subsection (F)
23 provides that the required off-street parking spaces must be available for parking and must not
24 be used for storage. Subsection (G) precludes locating required off-street parking or loading
25 areas within a required yard. Subsection (H) requires plans to be submitted as provided by
26 UCDC Section 152.767 and does not apply to the Council’s siting decision because it is an
27 administrative provision rather than a land use standard. Subsection (I) establishes design
28 requirements for parking lots and is not applicable because the proposed HWPF does not
29 include a parking lot. The Council finds that the proposed parking areas within the two 3-acre
30 O&M building sites would provide adequate parking area for the proposed HWPF.

31 **UCDC Sections 152.570 through 152.577**

32 UCDC Sections 152.570 through 152.577 provide for exceptions to the requirements
33 of other county land use ordinances. These ordinances are not applicable because the
34 applicants are not requesting any exceptions.

35 **UCDC Sections 152.610 through 152.614**

36 These ordinances apply to conditional uses. UCDC Section 152.610 contains
37 definitions and UCDC Section 152.611 contains procedural requirements pertaining to new or
38 altered conditional uses. The ordinance provides that the planning authority may impose
39 conditions “considered necessary to protect the best interests of the surrounding area or the
40 county as a whole.” The ordinance provides that the county may require an applicant to
41 furnish the county with “a performance bond or such other form of assurance that the county
42 deems necessary to guarantee development in accordance with the standards established and

⁶⁵ Request for Amendment, Section 4, p. 43.

1 conditions attached in granting a conditional use.” The certificate holder is legally bound by
2 the terms and conditions of the site certificate (including amendments) and is subject to the
3 enforcement authority of the Council, and therefore the county performance bond described in
4 this ordinance would not be necessary.

5 UCDC Section 152.612 describes the procedure for taking action on a conditional use
6 application. The applicants have elected to have the Council make the land use decision in
7 accordance with ORS 469.504(1)(b), and therefore the Council’s procedural requirements
8 apply. Issuance of a site certificate or an amended site certificate binds the county to issue a
9 conditional use permit in accordance with ORS 469.401(3).

10 UCDC Section 152.612(C) provides that a conditional use permit “will not be
11 approved unless the proposed use of the land will be in conformance with the county
12 Comprehensive Plan.” Applicable policies of the UCCP are discussed below, beginning at
13 page 56.

14 UCDC Section 152.612(D) requires that the certificate holder obtain a Zoning Permit
15 before beginning construction. The Zoning Permit requirement is discussed below at page 66.

16 UCDC Section 152.613 establishes a one-year time limit on a conditional use permit
17 but provides that the Planning Director or the proper planning authority may extend the time
18 limit for an additional period not to exceed one year. This ordinance is a procedural
19 requirement and is not a substantive land use criterion. Condition 24 establishes a deadline for
20 beginning construction.⁶⁶

21 UCDC Section 152.614 precludes consideration of a conditional use application
22 within one year after the denial of a like request unless there is “new evidence or a change of
23 circumstances.” This ordinance does not apply because there has been no prior denial of a
24 conditional use application.

25 **UCDC Section 152.615**

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:*

30 *(A) Limiting the manner in which the use is conducted, including restricting hours*
31 *of operation and restraints to minimize such a [sic] environmental effects as noise,*
32 *vibration, air pollution, glare or odor;*

33 *(B) Establishing a special yard, other open space or lot area or dimension;*

34 *(C) Limiting the height, size or location of a building or other structure;*

35 *(D) Designating the size, number, location and nature of vehicle access points;*

36 *(E) Increasing the required street dedication, roadway width or improvements*
37 *within the street right of way;*

⁶⁶ The site certificate became effective on August 5, 2009. Accordingly, Condition 24 requires the certificate holder to begin construction by August 5, 2012.

- 1 (F) Designating the size, location, screening, drainage, surfacing or other
2 improvement of a parking or loading area;
- 3 (G) Limiting or otherwise designating the number, size, location, height and
4 lighting of signs;
- 5 (H) Limiting the location and intensity of outdoor lighting and requiring its
6 shielding;
- 7 (I) Requiring diking, screening, landscaping or other methods to protect adjacent
8 or nearby property and designating standards for installation and maintenance.
- 9 (J) Designating the size, height, location and materials for a fence;
- 10 (K) Protecting and preserving existing trees, vegetation, water resources, wildlife
11 habitat, or other significant natural resources;
- 12 (L) Parking area requirements as listed in §§ 152.560 through 152.562 of this
13 chapter.

14 UCDC Section 152.615 describes conditions that may be imposed “upon a finding that
15 circumstances warrant such additional restrictions.” The ordinance is a list of discretionary
16 conditions and does not contain substantive standards. Under ORS 469.401, the county will
17 be bound to issue a Conditional Use Permit “subject only to the conditions set forth in the site
18 certificate or amended site certificate.” To ensure that the site certificate is protective of the
19 county’s interests, the Department asked the county to recommend site certificate conditions,
20 and the county recommended that the site certificate contain conditions to address county
21 concerns.⁶⁷ In the *Final Order on the Application*, the Council adopted site certificate
22 conditions based on the county’s recommendations.⁶⁸ In its comments on the amendment
23 request, the county did not recommend any new or revised site certificate conditions.⁶⁹

24 **UCDC Section 152.616**

25 UCDC Section 152.616 contains standards for the review of specific conditional uses.
26 UCDC Section 152.616(HHH) contains specific standards applicable to wind power
27 generation facilities. The county updated this ordinance, effective March 11, 2010.
28 Specifically, the county revised UCDC Section 152.616(HHH)(2)(J) to eliminate the
29 requirement of a Goal 3 exception for a Wind Power Generation Facility exceeding 20 acres
30 in size.

- 31 *(1) The procedure for taking action on the siting of a facility is a request for a*
32 *conditional use. A public hearing pursuant to Sections 152.750 -755 and 152.771*
33 *shall be held to determine if the applicant meets the siting requirements for a Wind*
34 *Power Generation Facility. The requirement for a hearing will not apply to*
35 *proposed facilities for which EFSC is making the land use decision.*

36 UCDC Section 152.616(HHH)(1) describes the procedure that applies when a
37 developer requests a Conditional Use Permit from the county for a proposed wind power

⁶⁷ Email from Carol Johnson, Umatilla County Planning Department, April 20, 2009.

⁶⁸ *Final Order on the Application*, p. 33.

⁶⁹ Letter from Carol Johnson, Umatilla County Planning Department, September 22, 2010

1 generation facility. The applicants have elected to have the Council make the land use
2 decision in accordance with ORS 469.504(1)(b), and therefore the Council's procedural
3 requirements apply.

4 (2) *The following information shall be provided as part of the application:*

5 (A) *A general description of the proposed Wind Power Generation Facility, a*
6 *tentative construction schedule, the legal description of the property on which the*
7 *facility will be located, and identification of the general area for all components of*
8 *the proposed Wind Power Generation Facility, including a map showing the*
9 *location of components.*

10 (B) *Identification of potential conflicts, if any, with: (1) Accepted farming*
11 *practices as defined in ORS 215.203(2)(c) on adjacent lands devoted to farm uses;*
12 *(2) Other resource operations and practices on adjacent lands except for wind*
13 *power generation facilities on such adjacent lands; and (3) Accepted farm or*
14 *forest practices on surrounding EFU/GF or NR land, including the nature and the*
15 *extent of the impact of the proposed facility on the cost of such practices.*

16 (C) *A Transportation Plan, with proposed recommendations, if any, reflecting*
17 *the guidelines provided in the Umatilla County Transportation System Plan (TSP)*
18 *and the transportation impacts of the proposed Wind Power Generation Facility*
19 *upon the local and regional road system during and after construction, after*
20 *consultation with Umatilla County Public Works Director. The plan will designate*
21 *the size, number, location and nature of vehicle access points.*

22 (D) *An avian impact monitoring plan. The avian monitoring plan shall be*
23 *designed and administered by the applicant's wildlife professionals. For projects*
24 *being sited by EFSC, compliance with EFSC's avian monitoring requirements will*
25 *be deemed to meet this requirement. The plan shall include the formation of a*
26 *technical oversight committee to review the plan, and consist of the following*
27 *persons:*

28 (1) *The landowners/farm tenants.*

29 (2) *Facility owner/operator representative. (Chair)*

30 (3) *Oregon Department of Fish and Wildlife representative, if the agency*
31 *chooses to participate.*

32 (4) *Two Umatilla County residents with no direct economic interest in the*
33 *project and recommended by the applicants for appointment by the Umatilla*
34 *County Board of Commissioners.*

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

37 (6) *Umatilla County Planning Commission member.*

38 *At the request of applicant, this committee requirement may be waived or*
39 *discontinued by the County.*

1 (E) A Covenant Not to Sue with regard to generally accepted farming practices
2 shall be recorded with the County. Generally accepted farming practices shall be
3 consistent with the definition of Farming Practices under ORS 30.930 [sic]. The
4 applicant shall covenant not to sue owners, operators, contractors, employees, or
5 invitees of property zoned for farm use for generally accepted farming practices.

6 (F) A fire prevention and emergency response plan for all phases of the life of
7 the facility. The plan shall address the major concern associated with the terrain,
8 dry conditions, and limited access.

9 (G) An erosion control plan, developed in consultation with the Umatilla
10 County Public Works Department. The plan should include the seeding of all road
11 cuts or related bare road areas as a result of all construction, demolition and
12 rehabilitation with an appropriate mix of native vegetation or vegetation suited to
13 the area. This requirement will be satisfied if the applicant has an NPDES
14 (National Pollution Discharge Elimination System) permit.

15 (H) A weed control plan addressing prevention and control of all Umatilla
16 County identified noxious weeds directly resulting from the Wind Power
17 Generation Facility during preparation, construction, operation and
18 demolition/rehabilitation.

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

26 (J) All Wind Power Generation Facilities must show compliance with the
27 standards found in OAR 660-033-0130 (37).

28 (K) Information pertaining to the impacts of the Wind Power Generation
29 Facility on: (1) Wetlands; (2) Wildlife (all potential species of reasonable
30 concern); (3) Wildlife Habitat; (4) Criminal Activity (vandalism, theft, trespass,
31 etc.) and proposed actions, if any, to avoid, minimize or mitigate negative impacts.

32 (L) A dismantling and decommissioning plan of all components of the Wind
33 Power Generation Facility, as provided in '152.616 (HHH)(7).

34 UCDC Section 152.616(HHH)(2) describes the content of an application for a
35 Conditional Use Permit under the county procedure. Although the ordinance is primarily
36 procedural in nature, subsection (J) contains a substantive requirement. The county has
37 updated subsection (J) to require a demonstration of compliance with the standards found in
38 OAR 660-033-0130(37), and the county has removed the previous requirement for a Goal 3
39 exception for projects that remove more than 20 acres of Exclusive Farm Use (EFU) land
40 from farm use. We discuss compliance with the state regulation below, beginning at page 48.

41 The Council's procedural rules apply to this site certificate amendment request. OAR
42 345-027-0060 describes the required content of a site certificate amendment request.

1 Nevertheless, the applicants have addressed the requirements of UCDC Section
2 152.616(HHH)(2) with respect to the amendment request as described below.⁷⁰

3 A description of the components and location of the proposed expansion, required by
4 subsection (A) of the ordinance, is addressed in Section 4.3 of the amendment request and by
5 the figures in Attachment 1. Potential adverse effects of the expansion on accepted farming
6 practices, described in subsection (B) of the ordinance, are addressed in the discussion of
7 UCDC Section 152.061.⁷¹ Transportation impacts of the proposed facility on traffic safety,
8 described in subsection (C) of the ordinance, are addressed in Section 4.5 of the amendment
9 request.⁷² Subsection (D) of the ordinance specifically provides that compliance with the
10 Council's avian monitoring requirements satisfies the requirements of the ordinance
11 subsection. Condition 88 requires the certificate holder to implement the *Wildlife Monitoring
and Mitigation Plan*. Subsection E requires a Covenant Not to Sue with regard to generally
12 accepted farming practices. Condition 42 requires the certificate holder to execute a Covenant
13 Not to Sue that complies with the county requirement. Fire prevention and response measures,
14 described in subsection (F) of the ordinance, are addressed in Section 4.6 of the amendment
15 request and in the applicant's discussion of UCDC Section 152.616(HHH)(2)(F).⁷³
16 Subsection (G) of the ordinance addresses erosion control and specifically provides that
17 having an NPDES permit satisfies the requirements of the ordinance subsection. Condition 77
18 requires the certificate holder to have an NPDES 1200-C permit and to conduct all
19 construction work in compliance with an Erosion and Sediment Control Plan. Subsection (H)
20 requires a weed control plan. Condition 89 requires the certificate holder to implement a
21 *Revegetation Plan* that includes weed control measures. Condition 44 requires the certificate
22 holder to implement a weed control program during facility construction and operation. An
23 assessment of the proposed facility's effects upon the social, economic, public service,
24 cultural, visual and recreational aspects of affected communities, required by subsection (I) of
25 the ordinance, is addressed in Section 4.5 of the amendment request.⁷⁴ Subsection (J) requires
26 a demonstration of compliance with the standards found in OAR 660-033-0130(37). We
27 discuss this regulation below at page 48. Information about the proposed facility's impacts on
28 wetlands, wildlife, wildlife habitat and criminal activity, described in subsection (K) of the
29 ordinance, is addressed in Section 4.5 of the amendment request.⁷⁵ A plan for
30 "decommissioning" the wind power generation facility, described in subsection (L) of the
31 ordinance, is addressed Section 4.5 of the amendment request.⁷⁶
32

⁷⁰ Certificate Holder Responses (November 2, 2010), Attachment 5, pp. 4-9.

⁷¹ Certificate Holder Responses (November 2, 2010), Attachment 5, pp. 1-4.

⁷² Request for Amendment #1, Section 4, pp. 43-44.

⁷³ Request for Amendment #1, Section 4, p. 52, and Certificate Holder Responses (November 2, 2010), Attachment 5, p. 6.

⁷⁴ Request for Amendment #1, Section 4, pp. 41-44 (public services), 38-39 (cultural resources), 29-38 (scenic resources) and 39-41 (recreational resources).

⁷⁵ Request for Amendment #1, Section 4, pp. 50-51 (wetlands), 26-29 (wildlife and wildlife habitat) and 43 (police protection).

⁷⁶ Request for Amendment #1, Section 4, pp. 25-26, and Attachment 7.

1 (3) *Umatilla County may impose clear and objective conditions in accordance*
2 *with the County Comprehensive Plan, County Development Code and state law,*
3 *which Umatilla County considers necessary to protect the best interests of the*
4 *surrounding area, or Umatilla County as a whole.*

5 UCDC Section 152.616(HHH)(3) gives the county discretion to impose “clear and
6 objective conditions...necessary to protect the best interests of the surrounding area, or
7 Umatilla County as a whole.” The site certificate includes conditions based on the county’s
8 recommendations.

9 (4) *Prior to commencement of any construction, all other necessary permits shall*
10 *be obtained, e.g. Umatilla County Zoning Permit, road access and other permits*
11 *from the Umatilla County Public Works Department, and from the Oregon*
12 *Department of Transportation.*

13 Condition 27 requires the certificate holder to obtain all necessary federal, state and
14 local permits or approvals required for construction. Because the site certificate binds the
15 certificate holder to construct the facility in accordance with the site certificate conditions, the
16 Council finds that Condition 27 would ensure compliance with UCDC Section
17 152.616(HHH)(3).

18 (5) *The following requirements and restrictions apply to the siting of a facility:*

19 (A) *The Wind Power Generation Facility shall be on property zoned EFU/GF*
20 *or NR, and no portion of the facility shall be within 3,520 feet of properties zoned*
21 *residential use or designated on the Comprehensive Plan as residential. (For*
22 *clarification purposes of this section, EFU/GF/NR zones are not considered zoned*
23 *for residential use.)*

24 (B) *Reasonable efforts shall be made to blend the wind facility’s towers with the*
25 *natural surrounding in order to minimize impacts upon open space and the natural*
26 *landscape.*

27 (C) *Reasonable efforts shall be taken to protect and to preserve existing trees,*
28 *vegetation, water resources, wildlife habitat or other significant natural resources.*

29 (D) *The turbine towers shall be designed and constructed to discourage bird*
30 *nesting and wildlife attraction.*

31 (E) *The turbine towers shall be of a size and design to help reduce noise or*
32 *other detrimental effects.*

33 (F) *Private access roads shall be gated to protect the facility and property*
34 *owners from illegal or unwarranted trespass, and illegal dumping and hunting.*

35 (G) *Where practicable the electrical cable collector system shall be installed*
36 *underground, at a minimum depth of 3 feet; elsewhere the cable collector system*
37 *shall be installed to prevent adverse impacts on agriculture operations.*

38 (H) *Required permanent maintenance/operations buildings shall be located off-*
39 *site in one of Umatilla County’s appropriately zoned areas, except that such a*
40 *building may be constructed on-site if (1) the building is designed and constructed*
41 *generally consistent with the character of similar buildings used by commercial*

1 *farmers or ranchers, and (2) the building will be removed or converted to farm use*
2 *upon decommissioning of the Wind Power Generation Facility consistent with the*
3 *provisions of '152.616 (HHH)(7).*

4 *(I) A Wind Power Generation Facility shall comply with the Specific Safety*
5 *Standards for Wind Facilities delineated in OAR 345-024-0010 (as adopted at*
6 *time of application).*

7 UCDC Section 152.616(HHH)(5) lists requirements and restrictions applicable to
8 siting a wind power generating facility in the county. These requirements and restrictions are
9 addressed by site certificate conditions.

10 Subsection (A) requires that a wind power generating facility be located on land zoned
11 EFU, GF (Grazing/Farm Zone) or NR (Non-Resource Zone). The HWPF, including the
12 components proposed in this amendment, would be located entirely on EFU land.⁷⁷
13 Subsection (A) of the ordinance also requires that “no portion of the facility shall be within
14 3,520 feet of properties zoned residential use or designated on the Comprehensive Plan as
15 residential.” Condition 43 incorporates this county requirement.

16 Subsection (B) requires that “reasonable efforts” be made to blend the wind power
17 generation facility’s towers with the surrounding landscape. Condition 97 addresses measures
18 to reduce the visual impact of the proposed HWPF.

19 Subsection (C) requires “reasonable efforts...to protect and to preserve existing trees,
20 vegetation, water resources, wildlife habitat or other significant natural resources.” A
21 discussion of the Council’s Fish and Wildlife Habitat Standard begins at page 88 and
22 addresses measures to reduce impact on these resources, including applicable site certificate
23 conditions. The potential impact on water resources is addressed in the discussion of the
24 Ground Water Act below at page 107. The effect of the facility on wetlands and other waters
25 of the state protected by the state’s Removal/Fill Law is addressed below at page 105.

26 Subsection D requires that turbine towers be designed and constructed to discourage
27 bird nesting and wildlife attraction. Condition 94 requires the certificate holder to use smooth
28 turbine tower structures that lack perching or nesting opportunities for birds.

29 Subsection E requires that wind turbine towers be designed “to reduce noise or other
30 detrimental effects.” As discussed below, beginning at page 99, and subject to the site
31 certificate conditions described in that discussion, the facility would comply with the state
32 noise control regulations. Other possible “detrimental effects” would be reduced by locating
33 turbines away from residences and public roads, as required by Condition 43.

34 Subsection F requires gates on private access roads. Condition 39 addresses this
35 county requirement.

36 Subsection G requires that collector lines be installed underground or, if aboveground,
37 that they be installed to prevent adverse impacts on agriculture operations. Condition 85
38 requires the majority of the collector system to be installed underground. Condition 38
39 requires the certificate holder to design and construct the facility to reduce potential adverse
40 impacts on farming operations.

⁷⁷ Request for Amendment, Attachment 1, Figure 7.

1 Subsection H requires that any on-site O&M building be designed and constructed
2 generally consistent with the character of similar buildings used by commercial farmers or
3 ranchers and that the building be removed or converted to farm use upon “decommissioning”
4 of the facility. Condition 98 requires the design of the O&M buildings to be consistent with
5 farm structures in the area. Site restoration is discussed above, beginning at page 24. The cost
6 estimate for site restoration assumes that the O&M buildings would be removed and includes
7 the cost of demolition, but the buildings might be converted to farm use at the request of the
8 landowners. Condition 31 incorporates the site restoration cost estimate.

9 Subsection I requires that a wind power generation facility comply with the Council’s
10 Public Health and Safety Standards for Wind Facilities as described in OAR 345-024-0010.
11 Compliance with these standards is discussed below at page 80.

12 Condition 3 requires the certificate holder to construct the facility substantially as
13 described in the application and in compliance with applicable state and local laws, rules and
14 ordinances. For the reasons discussed above and subject to the site certificate conditions
15 described herein, the Council finds that the expanded HWPF would comply with UCDC
16 Section 152.616(HHH)(5).

17 *(6) To the extent feasible, the county will accept information presented by an*
18 *application for an EFSC proceeding in the form and on the schedule required by*
19 *EFSC.*

20 UCDC Section 152.616(HHH)(6) is a procedural requirement establishing that the
21 county will accept information presented in a site certificate application in the form and on the
22 schedule required by the Council.

23 *(7) The applicants dismantling of uncompleted construction and/or*
24 *decommissioning plan for the Wind Power Generation Facility shall include the*
25 *following information:*⁷⁸

26 * * *

27 *(G) For projects sited by EFSC, compliance with EFSC’s financial assurance*
28 *and decommissioning standards shall be deemed to be in compliance with the*
29 *dismantling and decommissioning requirements of this Section 152.616 (HHH)(7).*

30 UCDC Section 152.616(HHH)(7) requires that the applicant provide a plan for
31 “dismantling of uncompleted construction and/or decommissioning plan.” The requirements
32 of this ordinance are met “for facilities sited by EFSC” if the certificate holder complies with
33 the Council’s “financial assurance and decommissioning standards.” The Council’s
34 Retirement and Financial Assurance Standard is discussed above, beginning at page 24. For
35 the reasons discussed therein and subject to the related site certificate conditions, the Council
36 finds that the certificate holder would comply with this standard.

37 *(8) A bond or letter of credit shall be established for the dismantling of*
38 *uncompleted construction and/or decommissioning of the facility. (See §152.616*
39 *(HHH)(7)) For projects being sited by the State of Oregon’s Energy Facility Siting*

⁷⁸ Omitted subsections describe the required content of a decommissioning plan, including site restoration, the County bond or letter of credit requirement and arbitration.

1 *Council (EFSC), the bond or letter of credit required by EFSC will be deemed to*
2 *meet this requirement.*

3 UCDC Section 152.616(HHH)(8) requires a bond or letter of credit for the cost of
4 “the dismantling of uncompleted construction and/or decommissioning of the facility.” The
5 ordinance provides that the bond or letter of credit that the Council requires satisfies the
6 requirement of the ordinance for “projects being sited by the State of Oregon’s Energy
7 Facility Siting Council (EFSC).” Because Condition 8 requires the certificate holder to
8 provide a bond or letter of credit for site restoration in a form and amount satisfactory to the
9 Council, the Council finds that the certificate holder would comply with UCDC Section
10 152.616(HHH)(8).

11 *(9) The actual latitude and longitude location or Stateplane NAD 83(91)*
12 *coordinates of each turbine tower, connecting lines, and transmission lines, shall*
13 *be provided to Umatilla County once commercial electrical production begins.*

14 *(10) A summary of as built changes in the facility from the original plan, if any,*
15 *shall be provided by the owner/operator.*

16 UCDC Section 152.616(HHH)(9) requires that “actual latitude and longitude
17 location...of each turbine tower, connecting lines, and transmission lines” be provided when
18 commercial operation of the wind power generation facility begins, and UCDC Section
19 152.616(HHH)(10) requires a summary of “as built changes in the facility from the original
20 plan.” Because Condition 46 requires the certificate holder to provide the actual location of
21 turbine towers, connecting lines and transmission lines and a summary of as-built changes as
22 required by the county ordinance, the Council finds that the certificate holder would comply
23 with UCDC Sections 152.616(HHH)(9) and (10).

24 *(11) (A) The Wind Power Generation Facility requirements shall be facility*
25 *specific, but can be amended as long as the facility does not exceed the boundaries*
26 *of the Umatilla County conditional use permit where the original facility was*
27 *constructed.*

28 *(B) An amendment to the conditional use permit shall be required if proposed*
29 *facility changes would: (1) Increase the land area taken out of agricultural*
30 *production by an additional 20 acres or more; (2) Increase the land area taken out*
31 *of agricultural production sufficiently to trigger taking a Goal 3 exception; (3)*
32 *Require an expansion of the established facility boundaries; (4) Increase the*
33 *number of towers; (5) Increase generator output by more than 25 percent relative*
34 *to the generation capacity authorized by the initial permit due to the repowering*
35 *or upgrading of power generation capacity. Notification by the facility*
36 *owner/operator to the Umatilla County Planning Department of changes not*
37 *requiring an amendment are encouraged, but not required. An amendment to a*
38 *Site Certificate issued by EFSC will be governed by the rules for amendments*
39 *established by EFSC.*

40 UCDC Section 152.616(HHH)(11) establishes the county procedure for amendment of
41 a conditional use permit for a wind generation facility. The ordinance is a procedural
42 requirement and is not a substantive land use standard. The ordinance notes that the
43 amendment of a site certificate is governed by the Council’s rules.

1 (12) Within 120 days after the end of each calendar year the facility
2 owner/operator shall provide Umatilla County an annual report including the
3 following information:

4 (A) Energy production by month and year.

5 (B) Non-proprietary information about wind conditions. (e. g. monthly
6 averages, high wind events, bursts)

7 (C) A summary of changes to the facility that do not require facility
8 requirement amendments.

9 (D) A summary of the avian monitoring program – bird injuries, casualties,
10 positive impacts on area wildlife and any recommendations for changes in the
11 monitoring program.

12 (E) Employment impacts to the community and Umatilla County during and
13 after construction.

14 (F) Success or failures of weed control practices.

15 (G) Status of the decommissioning fund.

16 (H) Summary comments – any problems with the projects, any adjustments
17 needed, or any suggestions.

18 The annual report requirement may be discontinued or required at a less frequent
19 schedule by the County. The reporting requirement and/or reporting schedule
20 shall be reviewed, and possibly altered, at the request of the facility
21 owner/operator. For facilities under EFSC jurisdiction and for which an annual
22 report is required, the annual report to EFSC satisfies this requirement.

23 UCDC Section 152.616(HHH)(12) requires the owner or operator of a wind power
24 generating facility to report annually to the county. The ordinance notes that for facilities
25 under Council jurisdiction, compliance with the Council’s annual reporting requirement
26 satisfies the ordinance. Condition 21 requires the certificate holder to report to the Council
27 every six months during construction and annually after beginning construction. Condition 47
28 requires the certificate holder to deliver a copy of the annual report to the Umatilla County
29 Planning Commission on an annual basis. Because these conditions require the certificate
30 holder to submit a copy of the annual report to the county, the Council finds that the
31 certificate holder would comply with UCDC Section 152.616(HHH)(12).

32 OAR 660-033-0130(37)

33 UCDC Section 152.616(HHH)(2)(J) requires a demonstration of compliance with the
34 standards found in OAR 660-033-0130(37). OAR 660-033-0130(37) defines a “wind power
35 generating facility” and provides criteria for the approval of a wind power generating facility
36 sited on farmland. In the *Final Order on the Application*, the Council found that all of the
37 HWPF components fit within the definition of “wind power generating facility.”⁷⁹ For the
38 reasons discussed in the subsections below, the Council finds that the HWPF, with the

⁷⁹ *Final Order on the Application*, p. 56.

1 expansion proposed in the amendment request, meets the criteria described in OAR 660-033-
2 0130(37) for approval of a wind power generating facility on farmland.

3 *(37) For purposes of this rule a wind power generation facility includes, but is not*
4 *limited to, the following system components: all wind turbine towers and concrete*
5 *pads, permanent meteorological towers and wind measurement devices, electrical*
6 *cable collection systems connecting wind turbine towers with the relevant power*
7 *substation, new or expanded private roads (whether temporary or permanent)*
8 *constructed to serve the wind power generation facility, office and operation and*
9 *maintenance buildings, temporary lay-down areas and all other necessary*
10 *appurtenances. A proposal for a wind power generation facility shall be subject to*
11 *the following provisions:*

12 *(a) For high-value farmland soils described at ORS 195.300(10), the governing*
13 *body or its designate must find that all of the following are satisfied:*

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

19 *(i) Technical and engineering feasibility;*

20 *(ii) Availability of existing rights of way; and*

21 *(iii) The long term environmental, economic, social and energy*
22 *consequences of siting the facility or component on alternative sites,*
23 *as determined under OAR 660-033-0130(37)(a)(B).*

24 *(B) The long-term environmental, economic, social and energy consequences*
25 *resulting from the wind power generation facility or any components thereof*
26 *at the proposed site with measures designed to reduce adverse impacts are*
27 *not significantly more adverse than would typically result from the same*
28 *proposal being located on other agricultural lands that do not include high-*
29 *value farmland soils.*

30 *(C) Costs associated with any of the factors listed in OAR 660-033-*
31 *0130(37)(a)(A) may be considered, but costs alone may not be the only*
32 *consideration in determining that siting any component of a wind power*
33 *generation facility on high-value farmland soils is necessary.*

34 *(D) The owner of a wind power generation facility approved under OAR 660-*
35 *033-0130(37)(a) shall be responsible for restoring, as nearly as possible, to*
36 *its former condition any agricultural land and associated improvements that*
37 *are damaged or otherwise disturbed by the siting, maintenance, repair or*
38 *reconstruction of the facility. Nothing in this subsection shall prevent the*
39 *owner of the facility from requiring a bond or other security from a*
40 *contractor or otherwise imposing on a contractor the responsibility for*
41 *restoration.*

42 *(E) The criteria of OAR 660-033-0130(37)(b) are satisfied.*

1 (b) For arable lands, meaning lands that are cultivated or suitable for
2 cultivation, including high-value farmland soils described at ORS 195.300(10), the
3 governing body or its designate must find that:

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

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

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

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

32 (c) For nonarable lands, meaning lands that are not suitable for cultivation, the
33 governing body or its designate must find that the requirements of OAR 660-033-
34 0130(37)(b)(D) are satisfied.

35 (d) In the event that a wind power generation facility is proposed on a
36 combination of arable and nonarable lands as described in OAR 660-033-
37 0130(37)(b) and (c) the approval criteria of OAR 660-033-0130(37)(b) shall apply
38 to the entire project.

39 OAR 660-033-0130(37)(a) provides criteria for locating a wind power generating
40 facility on high-value farmland soils. The rule references ORS 195.300(10) for the definition
41 of “high-value farmland soils.”⁸⁰ ORS 195.300(10), in turn, references ORS 215.710, which

⁸⁰ A definition of “high-value farmland” is also found in OAR 660-033-0020(8).

1 defines “high-value farmland.” ORS 215.710(1) defines “high-value farmland” as land “in a
 2 tract composed predominantly of soils that are... [either irrigated or not irrigated and]
 3 classified prime, unique, Class I or II” by the Natural Resources Conservation Service
 4 (NRCS).⁸¹ “Tract” means one or more contiguous lots or parcels in the same ownership.⁸²
 5 The Council has found that “non-high-value farmland” in Umatilla County is agricultural land
 6 in other than Class I or Class II soils.⁸³

7 The previously-approved components of the HWPF would occupy approximately 15
 8 acres of high-value farmland.⁸⁴ As shown in Table 2, components of the facility to be located
 9 within the expansion area as proposed by the amendment request, would occupy
 10 approximately 67 acres of high-value farmland.

Table 2: Area Occupied by Expansion Components

| Structure | Total Permanent Impacts (acres) | High-Value Farmland (acres) | Non-High-Value Farmland (acres) |
|--|--|------------------------------------|--|
| Principal Use | | | |
| Turbine towers, including pad areas | 3.45 | 2.48 | 0.97 |
| Meteorological towers | 0.04 | 0.021 | 0.021 |
| Aboveground collector line structures | 0.064 | 0.04 | 0.024 |
| Aboveground collector line structures (Connection Route) | 0.035 | 0.017 | 0.018 |
| Aboveground 230-kV structures (Connection Route) | 0.024 | 0.013 | 0.011 |
| O&M Facility | 3.0 | 2.8 | 0.2 |
| Collector substation | 3.0 | 3.0 | 0 |
| Subtotal | 9.61 | 8.37 | 1.24 |
| Access roads | 76.44 | 58.61 | 17.83 |
| Total | 86.05 | 66.98 | 19.07 |

11 Reasonable alternatives

12 OAR 660-033-0130(37)(a)(A) requires the applicant to consider “reasonable
 13 alternatives” to locating the facility, or components of the facility, on “high-value farmland
 14 soils.” The applicant must “show that siting the wind power generation facility or component
 15 thereof on high-value farmland soils is necessary for the facility or component to function
 16 properly.” In the case of access roads and turbine strings, the applicant must show that these

⁸¹ ORS 215.710(6) provides that the applicable “soil classes, soil ratings or other soil designations” are those of the NRCS “in its most recent publication for that class, rating or designation before November 4, 1993.” ORS 215.710(2) provides that, in addition to land described in ORS 215.710(1), “high-value farmland, if outside the Willamette Valley, includes tracts growing specified perennials.” Specified perennials are “perennials grown for market or research purposes including, but not limited to, nursery stock, berries, fruits, nuts, Christmas trees or vineyards but not including seed crops, hay, pasture or alfalfa.”

⁸² OAR 660-033-0020(10).

⁸³ *Final Order on the Application*, p. 55. The Council also found that all Class VII and Class VIII soils within the site boundary are inventoried as agricultural land and therefore are included within the category of non-high-value farmland.

⁸⁴ *Final Order on the Application*, p. 58, and Table 3.

1 components must be placed on high-value farmland soils “to achieve a reasonably direct
2 route.” To demonstrate the necessity of using high-value farmland soils for the facility to
3 “function properly” or for a road or turbine string to “achieve a reasonably direct route,” the
4 applicant must consider the factors listed in subsections (i) through (iii) set forth above.

5 The rule first requires the applicant to determine whether “reasonable alternatives”
6 exist on soils that are not “high-value farmland soils.” The applicant must then analyze
7 whether the facility could “function properly” and whether turbine strings and roads could
8 “achieve a reasonably direct route” in an alternative location. The rule does not, however,
9 contain specific factors to be considered to determine whether a given alternative is
10 “reasonable.”

11 In the *Final Order on the Application*, the Council discussed the considerations for
12 deciding whether a reasonable alternative exists, and the Council’s findings are incorporated
13 herein by this reference.⁸⁵ The Council found that the applicant had considered reasonable
14 alternatives and had demonstrated that siting components of the HWPF on up to 15 acres of
15 high-value farmland soils was necessary.

16 The applicants have addressed the requirements of OAR 660-033-0130(37) with
17 respect to the proposed HWPF expansion area.⁸⁶ The applicants have provided maps showing
18 the distribution of high-value farmland soils and non-high-value farmland in Umatilla County,
19 based on data from the NRCS.⁸⁷ The applicants’ maps show that the area in the northern part
20 of the county is characterized by a complex mosaic of soil types in which high-value farmland
21 soils are interspersed with non-high-value farmland. The Council has previously found that
22 much of the land near the HWPF site is unavailable to the applicants because it is under lease
23 to other wind energy facilities (including the Stateline Wind Project, the Vansycle Ridge
24 Wind Project and the Combine Hills Wind Project).⁸⁸ Because the areas of non-high-value
25 farmland are interspersed with high-value-farmland soils in the areas available to the
26 applicants, proposed turbine strings (including access roads and collector lines) cannot be
27 located to “achieve a reasonably direct route” without affecting high-value-farmland soils.

28 The proposed amendment would expand the site boundary of the previously-approved
29 HWPF. The Council has previously found that it would be unreasonable to require a
30 certificate holder to locate a facility expansion at a distant location remote from facility
31 components that have already been approved for construction.⁸⁹ The Council has found that,
32 for an amendment that enlarges the site of an existing facility, a “reasonable alternative” must
33 be either contiguous with, or sufficiently close to, the previously-approved components to
34 ensure that operation of the entire facility is practicable.

35 For the reasons discussed above, the Council finds that the certificate holder has
36 considered reasonable alternatives and has shown that siting the proposed expansion of the

⁸⁵ *Final Order on the Application*, pp. 58-60.

⁸⁶ Request for Amendment #1, Section 4, pp. 17-20, and Certificate Holder Responses (November 2, 2010), Attachment 5, pp. 7-9.

⁸⁷ Certificate Holder Responses (November 2, 2010), Attachment 3, Revised Figures 8, 8a and 8b, and Figure 9.

⁸⁸ *Final Order on the Application*, p. 60.

⁸⁹ *Final Order on Amendment #4 for the Stateline Wind Project* (March 27, 2009), p. 71, and *Final Order on Amendment #1 for the Leaning Juniper II Wind Power Facility* (November 20, 2009), p. 42.

1 HWPF on high-value farmland soils is necessary. Accordingly, the HWPF, including the
2 proposed expansion, satisfies the requirements of OAR 660-033-0130(37)(a)(A).

3 Environmental, Economic, Social and Energy Consequences

4 Under OAR 660-033-0130(37)(a)(B), the applicant must show that “the long term
5 environmental, economic, social and energy consequences” of the facility or its components,
6 taking mitigation into account, “are not significantly more adverse than would typically result
7 from the same proposal being located on other agricultural lands that do not include high-
8 value farmland soils.” This requirement is similar to the standard under ORS
9 459.504(2)(c)(B) when the Council determines whether to grant a “reasons” exception to a
10 statewide planning goal: “The significant environmental, economic, social and energy
11 consequences anticipated as a result of the proposed facility have been identified and adverse
12 impacts will be mitigated in accordance with rules of the council applicable to the siting of the
13 proposed facility.” The *Final Order on the Application* included a Goal 3 exception analysis
14 as well as an analysis of OAR 660-033-0130(37)(a)(B).⁹⁰ The Council’s previous findings are
15 incorporated herein by reference. The Council specifically found that the environmental,
16 economic, social and energy consequences of siting some of the HWPF components on high-
17 value farmland were not significantly more adverse than would typically result from locating
18 all of the components on non-high-value farmland.⁹¹

19 The proposed expansion would increase the electric generating capacity of the HWPF
20 from 34 MW (average electric generating capacity) to 67 MW. The expansion, therefore,
21 would have positive energy consequences. The proposed expansion would have beneficial
22 economic and social consequences and no significant adverse economic consequences. The
23 applicants estimate that the expansion would result in up to 50 additional construction jobs.⁹²
24 Employment opportunities during facility operation would increase from 10 workers (for the
25 previously-approved facility) to up to 17 workers (for the expanded facility). Annual lease
26 payments in the wind facility lease area would supplement landowner income from other farm
27 operations without significantly reducing the land base available for farming practices. These
28 payments would increase if the amendment were approved because of the increase in the
29 number of wind turbines that would be built at the facility. In addition, the proposed
30 expansion would result in an increase in annual property tax revenue to Umatilla County.⁹³

31 The Council’s standards address the environmental and social consequences of the
32 HWPF and the proposed expansion. In our discussion of each of the standards, we identify the
33 potential adverse impacts of the proposed facility and explain how those impacts would be
34 mitigated. We discuss the Soil Protection Standard at page 67; the Protected Areas Standard at
35 page 68; the Scenic Resources Standard at page 73; the Threatened and Endangered Species
36 Standard at page 87; the Fish and Wildlife Habitat Standard at page 88; the Retirement and
37 Financial Assurance Standard at page 24; the Public Services Standard at page 96; the
38 Historic, Cultural and Archaeological Standard at page 95, the Recreation Standard at page
39 78; the Public Health and Safety Standards for Wind Energy Facilities at page 80; the Siting
40 Standards for Transmission Lines at page 85; the Structural Standard at page 94; and the

⁹⁰ *Final Order on the Application*, pp. 65-68 (Goal 3 analysis), p. 61 (OAR 660-033-0130(37)(a)(B) analysis).

⁹¹ *Final Order on the Application*, p. 61.

⁹² Request for Amendment #1, Section 4, p. 43.

⁹³ Certificate Holder Responses (November 2, 2010), Attachment 5, p. 28.

1 Waste Minimization Standard at page 98. We address other public safety issues at page 108.
2 Other environmental regulations are incorporated in the Council’s General Standard of
3 Review and include the state Noise Control Regulations, discussed at page 99; the
4 Removal/Fill regulations pertaining to wetlands and waters of the state, discussed at page 105;
5 and the Ground Water Act, discussed at page 107. We address cumulative impacts (Siting
6 Standards for Wind Energy Facilities) at page 81.

7 There is no contiguous area of non-high-value farmland close to the previously-
8 approved site boundary that is large enough to accommodate the proposed expansion.⁹⁴ To
9 accommodate the proposed expansion on other agricultural lands that do not include high-
10 value farmland soils would require unreasonably circuitous and indirect routes for the road
11 system and turbine strings and would likely result in a reduction in the number of wind
12 turbines that could be built or in an increase in the size of the expansion area. Locating the
13 expansion entirely on non-high-value farmland would increase the footprint of the facility,
14 decrease the generating capacity, or both. The “long term environmental, economic, social
15 and energy consequences” of locating the facility on non-high-value farmland, therefore,
16 would likely be more adverse—rather than less—than would result from the proposed
17 expansion that includes placement of some facility components on high-value farmland.

18 For the reasons discussed above and in the cross-referenced sections of this order, the
19 Council finds that the “long term environmental, economic, social and energy consequences”
20 of the proposed expansion of the HWPF facility, taking mitigation into account, “are not
21 significantly more adverse than would typically result from the same proposal being located
22 on other agricultural lands that do not include high-value farmland soils.” Accordingly, the
23 HWPF, including the proposed expansion, satisfies the requirements of OAR 660-033-
24 0130(37)(a)(B).

25 Costs

26 OAR 660-033-0130(37)(a)(C) provides that costs may be considered in the analysis
27 but “may not be the only consideration in determining that siting any component of a wind
28 power generation facility on high-value farmland soils is necessary.” As discussed above at
29 page 51, considerations other than cost have been applied in determining that siting the
30 components of the proposed HWPF expansion on high-value farmland soils is necessary.

31 Restoration

32 OAR 660-033-0130(37)(a)(D) requires the owner of a wind facility to restore
33 agricultural land damaged by the siting, maintenance, repair or reconstruction of the wind
34 power facility. Condition 89 requires the certificate holder to restore all areas disturbed by
35 construction of the HWPF, including the proposed expansion, as described in the
36 *Revegetation Plan*. Condition 45 requires the certificate holder to restore areas that are
37 temporarily disturbed during facility maintenance or repair activities using the same methods
38 and monitoring procedures as described in the *Revegetation Plan*. Because the site certificate
39 binds the certificate holder to construct the facility in accordance with the site certificate
40 conditions, the Council finds that Conditions 45 and 89 would ensure compliance with OAR
41 660-033-0130(37)(a)(D).

⁹⁴ Certificate Holder Responses (November 2, 2010), Attachment 5, p. 8, and Attachment 3, Revised Figures 8, 8a and 8b, and Figure 9.

1 Additional Criteria

2 OAR 660-033-0130(37)(a)(E) requires the applicant to demonstrate that the criteria of
3 OAR 660-033-0130(37)(b) are satisfied when determining whether a facility may be sited on
4 high-value farmland soils. These requirements are discussed below.

5 Arable and Nonarable Lands

6 Subsections (b), (c) and (d) of OAR 660-033-0130(37) provide additional criteria for
7 wind power generation facilities located on “arable” or “nonarable” land. Subsection (b)
8 defines “arable land” as “lands that are cultivated or suitable for cultivation, including high-
9 value farmland soils” and provides criteria for locating a facility on arable land. Subsection
10 (c) defines “nonarable land” as land “not suitable for cultivation” and identifies the criteria
11 applicable on nonarable land. Subsection (d) provides that when a proposed wind power
12 generation facility is located on a combination of arable and nonarable lands, then the criteria
13 in subsection (b) apply to the entire facility. The proposed expansion area contains
14 approximately 11,895 acres of agricultural land (cultivated or suitable for cultivation) and
15 approximately 1,132 acres of developed or otherwise non-cultivated land.⁹⁵ Therefore, the
16 HWPF expansion would be located on combination of arable and nonarable lands.
17 Accordingly, the criteria in subsection (b) apply. These criteria are discussed below.

18 Impacts on Agricultural Operations

19 OAR 660-033-0130(37)(b)(A) provides that the proposed wind power facility must
20 not “create unnecessary negative impacts on agricultural operations conducted on the subject
21 property.” This requirement is substantially similar to the approval standards in the Umatilla
22 County zoning ordinance, UCDC Section 152.061, discussed above at page 35. For the
23 reasons discussed there, the Council finds that the proposed expansion of the HWPF would
24 not result in unnecessary negative impacts on agricultural operations.

25 Soil Erosion and Compaction

26 OAR 660-033-0130(37)(b)(B) provides that the proposed wind power facility must
27 not result in unnecessary soil erosion. OAR 660-033-0130(37)(b)(C) provides that facility
28 construction or maintenance activities must not result in unnecessary soil compaction.
29 Potential adverse impacts to soils and measures to avoid or control soil erosion and
30 compaction are addressed by the Council’s Soil Protection Standard, discussed below at page
31 67. For the reasons discussed there, the Council finds that the proposed expansion of the
32 HWPF would not result in unnecessary soil erosion or compaction.

33 Weed Control

34 OAR 660-033-0130(37)(b)(D) provides that construction or maintenance activities
35 must not result in the “unabated introduction or spread of noxious weeds and other
36 undesirable weeds species.” Weed control is addressed by UCDC Section 152.616(HHH),
37 discussed above at page 40. Specifically, UCDC Section 152.616(HHH)(2)(H) requires a
38 weed control plan. Condition 89 addresses construction impacts to agricultural land and
39 requires the certificate holder to implement the *Revegetation Plan*, which includes weed
40 control measures. Condition 45 requires the certificate holder to restore areas that are
41 temporarily disturbed during facility maintenance or repair activities using the same methods

⁹⁵ Certificate Holder Responses (November 2, 2010), Attachment 1, Revised Table 3.

1 and monitoring procedures as described in the *Revegetation Plan*. Condition 44 requires the
2 certificate holder to implement a weed control plan during construction and operation of the
3 facility. The plan must be approved by appropriate county officials. For these reasons, the
4 Council finds that construction and operation of the proposed HWPF expansion would not
5 result in “unabated introduction or spread of noxious weeds and other undesirable weeds
6 species.”

7 **UCDC Section 152.617**

8 UCDC Section 152.617 describes standards applicable to conditional uses and “land
9 use decisions” on EFU zoned lands. The ordinance is divided into two sub-parts. Subpart I
10 applies to “EFU Conditional Uses.” Among these uses are “commercial facilities for the
11 purposes of generating and distributing power for public use by sale” (UCDC Section
12 152.617(I)(C)), which include “electrical substations” but not “wind power generating
13 facilities.” Standards applicable to wind power generating facilities are addressed by UCDC
14 Section 152.616(HHH), discussed above.

15 Subpart II applies to “EFU Land Use Decisions” (other than conditional uses). UCDC
16 Section 152.617(II)(7) lists “utility facilities necessary for public service.” UCDC Section
17 152.617(II)(8) lists “wind power generating facility” but simply cross-references the standards
18 in UCDC Section 152.616, discussed above.

19 UCDC Section 152.617(II)(7) applies to the 230-kV transmission line components of
20 the HWPF. The Council previously approved an aboveground 230-kV transmission line up to
21 15 miles in length to connect the facility substation to an interconnection station. The
22 proposed amendment would authorize the construction of an additional facility substation and
23 a segment of 230-kV transmission line to connect the new substation to the previously-
24 approved substation, but would not increase the overall length of 230-kV transmission line
25 allowed under the site certificate.⁹⁶ In the *Final Order on the Application*, the Council
26 addressed the criteria in the ordinance that apply to the 230-kV transmission line.⁹⁷ The
27 Council’s previous findings are incorporated herein by reference. The Council found that the
28 230-kV transmission line must be sited on EFU land in accordance with the ordinance criteria.
29 The same analysis applies to the additional transmission line segment that would be allowed
30 under the proposed amendment. For these reasons, the Council finds that the proposed
31 optional 230-kV transmission line segment satisfies the requirements of UCDC Section
32 152.617(II)(7).

33 **Comprehensive Plan Policies**

34 UCDC Section 152.612(C) provides that a conditional use permit “will not be
35 approved unless the proposed use of the land will be in conformance with the county
36 Comprehensive Plan.” The county identified the applicable policies of the UCCP.⁹⁸ The
37 county indicated that “most, if not all” of the identified policies are implemented through the
38 UCDC. The Council finds that the proposed HWPF, including the proposed expansion, would
39 be in conformance with the identified applicable policies of the UCCP for the reasons

⁹⁶ Request for Amendment #1, Section 1, p. 3.

⁹⁷ *Final Order on the Application*, pp. 42-43.

⁹⁸ Letter from Carol Johnson, Umatilla County Planning Department, September 22, 2010.

1 discussed below and for the reasons discussed in the *Final Order on the Application*, which
2 are incorporated herein by this reference.⁹⁹

3 Citizen Involvement

4 *Policy 1: Provide information to the public on planning issues and programs,*
5 *and encourage continuing citizen input to planning efforts.*¹⁰⁰

6 *Policy 5: Through appropriate media, encourage those County residents’*
7 *participation during both city and county deliberation proceedings.*¹⁰¹

8 The Council’s procedure for amendment of a site certificate decision is a public
9 process. The amendment request is a public document that has been made available at
10 libraries in Umatilla County and on the Department’s website. The Department issued a
11 public notice of the amendment request on August 26, 2010, by direct mail to all persons on
12 the Council’s mailing list, including property owners in the vicinity of the HWPF, and by
13 posting on the Department’s website. The notice invited public comment through September
14 24. A second public notice and comment period followed the issuance of the proposed order,
15 including the opportunity to request a contested case proceeding. The Department extended
16 this public comment period twice and held a public meeting for oral public comment on April
17 27.¹⁰² In addition, all Council meetings are open to the public.

18 Agriculture

19 *Policy 1: Umatilla County will protect, with Exclusive Farm Use zoning*
20 *pursuant to ORS 215, lands meeting the definition of farmland in this plan and*
21 *designated as Agricultural on the Comprehensive Plan Map.*¹⁰³

22 The proposed HWPF expansion area is located within the county’s EFU zone. UCDC
23 Section 152.060(F) provides that a “commercial utility facility for the purpose of generating
24 power for public use by sale” (including “Wind Power Generation”) is an allowable use on
25 EFU land, subject to conditional use standards in UCDC Sections 152.610 through 152.617.
26 The applicable ordinances have been addressed in the sections above.

27 *Policy 8: The county shall require appropriate procedures/standards/policies be*
28 *met in the Comprehensive Plan and Development Ordinance when reviewing non-*
29 *farm uses for compatibility with agriculture.*¹⁰⁴

30 The county has identified the applicable standards and policies for reviewing the
31 proposed amendment of the HWPF site certificate.¹⁰⁵ The county has participated in the
32 Council’s site certificate application review process and site certificate amendment process in
33 accordance with ORS 469.504.

⁹⁹ *Final Order on the Application*, pp. 44-52.

¹⁰⁰ UCCP, Chapter V, p. 6.

¹⁰¹ UCCP, Chapter V, p. 7.

¹⁰² Altogether, the public comment period on the proposed order continued for 75 days from the date of the first notice.

¹⁰³ UCCP, Chapter VI, pp. 1-2.

¹⁰⁴ UCCP, Chapter VI, p. 9.

¹⁰⁵ Letter from Carol Johnson, Umatilla County Planning Department, September 22, 2010.

1 *Policy 17: Maintain continuing liaison with state and federal agencies to insure*
2 *water supplies for farming and to help coordinate other land use development*
3 *related to agriculture.*¹⁰⁶

4 The applicants estimate that up to 120,000 gallons of water per day (and a total of
5 approximately 21.3 million gallons) would be needed during construction of the expanded
6 HWPF.¹⁰⁷ The water would be purchased from the City of Helix under the City’s existing
7 municipal water right or provided from an existing or new well onsite under a limited license
8 issued by the Oregon Water Resources Department (OWRD). The certificate holder would be
9 bound by the site certificate to comply with Condition 83, which requires that water use
10 during facility operation would consume no more than 5,000 gallons of water per day. The
11 water would come from on-site wells at the previously-approved O&M facility and at the
12 optional second O&M facility within the expansion area. Use of water consistent with
13 approved water rights ensures protection of existing water rights for agricultural uses. Water
14 use is discussed herein at page 107.

15 Open Space, Scenic and Historic Areas, and Natural Resources

16 *Policy 1: (a) The County shall maintain this resource by limiting development*
17 *mainly to existing built up areas.*¹⁰⁸

18 The HWPF, including the additional components proposed by this amendment, is a
19 wind power generating facility and is a use allowed within the EFU zone under UCDC
20 Section 152.060. A commercial wind energy facility must be located within open space where
21 a sufficient wind resource exists to support economic power generation.

22 *Policy 5: (a) The County shall maintain rural agricultural lands, Development*
23 *shall be of low density to assure retention of upland game habitat,*

24 *(b) Land uses should maintain the vegetation along streambanks, fence rows,*
25 *woodlots, etc. Research ways to reduce harassment and loss of upland game by*
26 *free roaming dogs and cats.*¹⁰⁹

27 The county’s EFU zoning designation applies to all of the land where the proposed
28 HWPF expansion would be located. Areas of streambank vegetation are considered Category
29 2 riparian habitat. As shown in Table 5 herein, there are approximately 8 acres of riparian
30 habitat within the expanded site boundary. According to the estimate of maximum habitat
31 impacts (shown in Table 6), no more than half an acre would be disturbed by construction of
32 the HWPF, if the amendment were approved. There are no woodlots within the site boundary.
33 The certificate holder would be bound by the site certificate to comply with Condition 89,
34 which requires the certificate holder to restore areas of vegetation disturbed by construction of
35 the HWPF in accordance with the *Revegetation Plan*.

¹⁰⁶ UCCP, Chapter VI, p. 12.

¹⁰⁷ Request for Amendment, Section 4, p. 42.

¹⁰⁸ UCCP, Chapter VIII, p. 5.

¹⁰⁹ UCCP, Chapter VIII, p. 8.

1 *Policy 6: (a) Developments or land uses that require drainage, channelization,*
2 *filling or excessive removal of riparian vegetation in sensitive waterfowl areas*
3 *should be identified....*¹¹⁰

4 There are no sensitive waterfowl areas within the proposed expanded site boundary.

5 *Policy 8: (a) Setbacks shall be established to protect significant and other*
6 *wetlands.*¹¹¹

7 UCDC Section 152.063(E) establishes setback distances from streams, lakes and
8 wetlands. The ordinance applies to “sewage disposal installations such as septic tanks and
9 drainfields” and to “all structures, buildings or similar permanent fixtures” and establishes a
10 setback distance of 100 feet, subject to specified exceptions. The certificate holder would be
11 bound by the site certificate to comply with Condition 39, which requires the certificate
12 holder to design and construct the facility in compliance with the county setback design
13 requirements described in the ordinance.

14 *Policy 9: (a) The County shall encourage land use practices which protect and*
15 *enhance significant wetlands.*¹¹²

16 This policy is related to a finding that identifies “significant wetlands” by reference to
17 Table D-XI(a) (Significant Wetlands Inventory) of the Technical Report. The proposed
18 expansion area lies within Townships 5 and 6 North and Ranges 31, 32 and 33 East.¹¹³ The
19 significant wetlands listed in Table D-XI(a) of the Technical Report are all outside the
20 proposed site boundary.¹¹⁴

21 *Policy 10:*

22 * * *

23 *(c) Compatible land use shall maintain the riparian vegetation along streams in*
24 *the floodplain. Streambank vegetation shall be maintained along streams outside*
25 *of the floodplain by utilizing appropriate setbacks.*

26 *(d) Development or land use that requires channelization, excessive removal of*
27 *streamside vegetation, alteration of stream banks and filling into stream channels*
28 *shall be restricted in order to maintain stream integrity.*

29 *(e) New roads, bridges and access rights-of-way shall be designed to avoid*
30 *channel capacity, and minimize removal of shoreline vegetation.*¹¹⁵

31 UCDC Section 152.063(E) establishes setback distances from streams, lakes and
32 wetlands. The certificate holder would be bound by the site certificate to comply with the site
33 certificate conditions. Condition 39 requires the certificate holder to design and construct the
34 facility in compliance with the county setback design requirements described in the ordinance.

¹¹⁰ UCCP, Chapter VIII, pp. 8-9.

¹¹¹ UCCP, Chapter VIII, p. 10.

¹¹² UCCP, Chapter VIII, p. 10.

¹¹³ Request for Amendment #1, Section 4, pp. 7-10.

¹¹⁴ Umatilla County Comprehensive Plan Technical Report (May 1980, latest major addition September 1984),
Table D-XI(a), p. D-31.

¹¹⁵ UCCP, Chapter VIII, pp. 10-11.

1 Condition 89 requires restoration of riparian vegetation disturbed during construction in
2 accordance with the *Revegetation Plan*. Development within the expansion area that would
3 affect streams is subject to state and federal regulation, as discussed below at page 105. New
4 access roads for the expansion may require culverts over drainages necessary to ensure
5 effective drainage on surrounding agricultural lands.¹¹⁶ Condition 40 requires the certificate
6 holder to design and construct new access roads to standards approved by the Umatilla
7 County Public Works Director and to design roads to minimize alteration of natural drainage.

8 *Policy 20:*

9 *(a) Developments of potentially high visual impacts shall address and mitigate*
10 *adverse visual effects in their permit application, as outlined in the Development*
11 *Ordinance standards,*

12 *(b) It is the position of the County that the Comprehensive Plan designations and*
13 *zoning already limit scenic and aesthetic conflicts by limiting land uses or by*
14 *mitigating conflicts through ordinance criteria. However, to address any specific,*
15 *potential conflicts, the County shall insure special consideration of the following*
16 *when reviewing a proposed change of land use:*

- 17 1. *Maintaining natural vegetation whenever possible.*
- 18 2. *Landscaping areas where vegetation is removed and erosion might result.*
- 19 3. *Screening unsightly land uses, preferably with natural vegetation or*
20 *landscaping*
- 21 4. *Limiting rights-of-way widths and numbers of roads intersecting scenic*
22 *roadways to the minimum needed to safely and adequately serve the uses to which*
23 *they connect.*
- 24 5. *Limiting signs in size and design so as not to distract from the*
25 *attractiveness of the area.*
- 26 6. *Siting developments to be compatible with surrounding area development,*
27 *and recognizing the natural characteristics of the location.*
- 28 7. *Limiting excavation and filling only to those areas where alteration of the*
29 *natural terrain is necessary, and revegetating such areas as soon as possible.*
- 30 8. *Protection vistas and other views which are important to be recognized*
31 *because of their limited number and importance to the visual attractiveness of the*
32 *area.*

33 * * * 117

34 UCDC Section 152.616(HHH)(5)(B) requires that “reasonable efforts” be made to
35 blend the wind power generation facility’s towers with the surrounding landscape. The
36 certificate holder would be bound by the site certificate to comply with the site certificate
37 conditions. Condition 97 addresses measures to reduce the visual impact of the HWPF and
38 requires the certificate holder to comply with UCDC Sections 152.545 through 152.548,

¹¹⁶ App, Exhibit K, p. 34.

¹¹⁷ UCCP, Chapter VIII, pp. 15-17. The County identified Policy 20(a) and 20(b)(1-8) as applicable.

1 which address design standards for signs. Condition 89 requires the certificate holder to
2 restore vegetation disturbed by construction in accordance with the *Revegetation Plan*.

3 *Policy 22: The County shall cooperate with state agencies and other historical*
4 *organization to preserve historic buildings and sites, cultural areas, and*
5 *archeological sites and artifacts.*¹¹⁸

6 *Policy 23: (a) Umatilla County shall encourage and cooperate in developing a*
7 *detailed county-wide historic site inventory....*¹¹⁹

8 *Policy 24: (a) Umatilla County shall protect significant historical and cultural*
9 *sites from land use activities which diminish their value as historical*
10 *resources....*¹²⁰

11 *Policy 26: The County shall cooperate with the Tribe, Oregon State Historic...*
12 *Preservation Office, and others involved in... identifying and protecting Indian*
13 *cultural areas and archeological sites.*¹²¹

14 The applicants submitted a cultural resources survey report covering survey corridors
15 throughout the expansion area. The State Historic Preservation Office (SHPO) is a reviewing
16 agency for this amendment and has received a copy of the amendment request and the survey
17 report for review. The Department identified the Confederated Tribes of the Umatilla Indian
18 Reservation (CTUIR) as a reviewing agency, and the CTUIR have received a copy of
19 amendment request for review and comment. The CTUIR confirmed that they did not have
20 any concerns regarding the cultural resources survey report and that the CTUIR did not
21 anticipate any direct or indirect impacts to traditional use areas or historic properties with
22 cultural or religious significance.¹²² The site certificate conditions related to the Council’s
23 Historic, Cultural and Archaeological Resources Standard are discussed below beginning at
24 page 95.

25 *Policy 37: The County shall ensure compatible interim uses provided through*
26 *Development Ordinance standards, and where applicable consider agriculturally*
27 *designated land as open space for appropriate and eventual resource or energy*
28 *facilities use.*

29 The county has not identified any ordinance standards that “ensure compatible interim
30 uses” of lands “set aside” for the “eventual uses” described in the finding. The policy,
31 nevertheless, provides that the county “where applicable” considers agriculturally designated
32 land appropriate for “energy facilities use.”

33 *Policy 38:*

34 *(a) The County shall encourage mapping of future aggregate sites, ensure their*
35 *protection from conflicting adjacent land uses, and required reclamation plans.*

¹¹⁸ UCCP, Chapter VIII, p. 18.

¹¹⁹ UCCP, Chapter VIII, p. 18.

¹²⁰ UCCP, Chapter VIII, p. 19.

¹²¹ UCCP, Chapter VIII, p. 20.

¹²² Email from Teara Farrow Ferman, CTUIR, December 16, 2010.

1 (b) Aggregate and mineral exploration, extraction, and reclamation shall be
2 conducted in conformance with the regulations of the Department of Geology and
3 Mineral Industries.

4 (c) The County Development Ordinance shall include conditional use standards,
5 and other provisions to limit or mitigate conflicting uses between aggregate sites
6 and surrounding land uses.¹²³

7 Policy 39:

8 (a) The County shall strictly enforce state and county development standards
9 pertaining to gravel extraction/processing uses through appropriate agencies;
10 whether new operations or expansions of existing sites.¹²⁴

11 The applicants do not propose development of an aggregate site in the amendment
12 request. In the *Final Order on the Application*, the Council found that gravel needed for road
13 construction and other construction purposes could be obtained from up to two new quarries
14 developed within the site boundary by the construction contractor.¹²⁵ The contractor would be
15 obligated to obtain all permits necessary for approval and operation of the gravel quarries.
16 The applicants may also obtain gravel for construction from an off-site existing or new
17 commercial aggregate quarry.

18 Policy 42: (a) Encourage development of alternative sources of energy.¹²⁶

19 The proposed amendment would expand a wind energy facility and increase its
20 generating capacity. Wind is considered an “alternative source” of energy.

21 Air, Land and Water Quality

22 Policy 1: Discharges from existing and future developments shall not exceed
23 applicable federal and state environmental quality standards.¹²⁷

24 The HWPF, with the additional components proposed in the amendment request,
25 would have no air or water pollution emissions during operation. The certificate holder would
26 be bound by the site certificate to comply with Condition 77, which requires the certificate
27 holder to control potential dust emissions during construction according to an Erosion and
28 Sediment Control Plan and a NPDES 1200-C permit.

29 Policy 7: Consider cumulative noise impacts and compatibility of future
30 developments, including the adoption of appropriate mitigating requirements at
31 plan updates.¹²⁸

32 The applicable state noise control regulations are discussed below at page 99. The
33 certificate holder would be bound by the site certificate to comply with Condition 101, which
34 requires the certificate holder to demonstrate that the final design configuration of the HWPF
35 facility would comply with the regulations.

¹²³ UCCP, Chapter VIII, pp. 23-24.

¹²⁴ UCCP, Chapter VIII, p. 24.

¹²⁵ *Final Order on the Application*, p. 15.

¹²⁶ UCCP, Chapter VIII, p. 27.

¹²⁷ UCCP, Chapter IX, p. 1.

¹²⁸ UCCP, Chapter IX, p. 2.

1 *Policy 8: Recognize that protection of existing wells has priority over*
2 *development proposals requiring additional subsurface sewage disposal.*¹²⁹

3 The facility would have on-site septic systems at each O&M facility. The certificate
4 holder would be bound by the site certificate to comply with Condition 104, which requires
5 that the septic systems be designed in compliance with state and county permit requirements
6 and for a capacity of less than 2,500 gallons per day.

7 Natural Hazards

8 *Policy 1: The county will endeavor, through appropriate regulations and*
9 *cooperation with applicable governmental agencies, to protect life and property*
10 *from natural hazards and disasters found to exist in Umatilla County.*¹³⁰

11 *Policy 4: Potentially hazardous major developments (e.g. power plants) must*
12 *address earthquake hazard possibilities.*¹³¹

13 This policy is related to the finding that “flooding is the major hazard potentially
14 dangerous to life and property” in the county. The HWPF, including the proposed expansion,
15 is not located in areas likely to flood. The Council’s Structural Standard, which addresses the
16 risk to public safety from seismic hazards (including earthquakes) and non-seismic geological
17 hazards, is discussed below beginning at page 94.

18 Recreational Needs

19 *Policy 1: Encourage and work with local, state, federal agencies and private*
20 *enterprise to provide recreational areas and opportunities to citizens and visitors*
21 *to the County.*¹³²

22 The HWPF, including the proposed expansion, is located on private land and not
23 within an established recreational area. The Council’s Recreation Standard, which addresses
24 potential impacts on recreational opportunities, is discussed below at page 78.

25 Economy of the County

26 *Policy 1: Encourage diversification within existing and potential resource-based*
27 *industries.*¹³³

28 The proposed expansion of the HWPF would diversify the county’s agriculture-based
29 economy by increasing the generating capacity of the facility.

30 *Policy 4: Participate in selected economic development programs and projects*
31 *applicable to the County’s desired growth.*¹³⁴

32 This policy is related to the finding that “regional, state and federal programs aid in
33 the development of local economies.” The county has not identified any “selected economic
34 development programs” that are applicable to the HWPF. The applicants are private wind
35 facility developers and operators, and the HWPF is not part of a governmental economic

¹²⁹ UCCP, Chapter IX, p. 2

¹³⁰ UCCP, Chapter X, p. 1.

¹³¹ UCCP, Chapter X, p. 2.

¹³² UCCP, Chapter XI, p. 1.

¹³³ UCCP, Chapter XII, p. 2.

¹³⁴ UCCP, Chapter XII, p. 2.

1 development program. The project may be eligible for federal and state tax credits. The
2 expansion of the HWPF is expected to generate employment opportunities during
3 construction and operation and to generate tax revenues for the county.¹³⁵

4 *Policy 8: Evaluate economic development proposals upon the following: Will the*
5 *proposal:*

6 *a. increase or decrease available supplies?*

7 *b. improve or degrade qualities?*

8 *c. balance withdrawal with recharge rates?*

9 *d. be a beneficial use?*

10 *e. have sufficient quantities available to meet needs of the proposed project*
11 *and other existing and reasonably anticipated needs?*

12 *f. reduce other use opportunities and if so, will the loss be compensated by*
13 *other equal opportunities?*¹³⁶

14 This policy is related to the finding that “water availabilities are a key resource to
15 future economic growth.” The applicants estimate that up to 120,000 gallons of water per day
16 (and a total of approximately 21.3 million gallons) would be needed during construction of
17 the expanded HWPF.¹³⁷ The water would be purchased from the City of Helix under the
18 City’s existing municipal water right or provided from an existing or new well onsite under a
19 limited license issued by OWRD. During facility operation, water use would consume no
20 more than 5,000 gallons of water per day and would come from on-site wells at the
21 previously-approved O&M facility and at the optional second O&M facility within the
22 expansion area. The facility’s water use would not adversely affect existing water rights and
23 would not degrade water quality. Use of water consistent with approved water rights ensures
24 protection of existing water rights for agricultural uses and other use opportunities. Water use
25 is discussed herein at page 107.

26 Public Facilities and Services

27 *Policy 1: The county will control land development in a timely, orderly, and*
28 *efficient manner by requiring that public facilities and services be consistent with*
29 *established levels of rural needs consistent with the level of service requirements*
30 *listed on pages J-27 and J-28 of the Technical Report. Those needs are identified*
31 *as follows:*

32 *a. Fire protection shall be provided consistent with Policies 8, 9, 10.*

33 *b. Police protection shall be provided consistent with Policy 7.*

34 *c. Surface Water Drainage – Roadside drainage shall be maintained and*
35 *plans for drainage shall be required in multiple use areas.*

¹³⁵ Certificate Holder Responses (November 2, 2010), Attachment 5, p. 28.

¹³⁶ UCCP, Chapter XII, p. 3.

¹³⁷ Request for Amendment, Section 4, p. 42.

1 d. Roads shall be maintained or improved to standards adopted by the
2 County Road Department which are consistent with nationally accepted standards
3 that correlate traffic to desired road conditions.¹³⁸

4 Subsections (a) and (b) address fire and police protection. The certificate holder would
5 be bound by the site certificate to comply with the site certificate conditions. Condition 60
6 requires the certificate holder to develop and implement fire safety plans during construction
7 and operation of the HWPF based on consultation with local fire control authorities.
8 Condition 61 requires the certificate holder to ensure that during facility operation,
9 appropriate fire protection agency personnel have an up-to-date list of the names and
10 telephone numbers of facility personnel available to respond on a 24-hour basis in case of an
11 emergency on the facility site. Condition 63 requires that all on-site employees receive annual
12 fire prevention and response training by qualified instructors or members of local fire
13 departments. Condition 75 requires the certificate holder to implement on-site security and
14 establish communication with the local law enforcement authorities.

15 Subsections (c) and (d) address roadside drainage and road improvement standards.
16 Condition 40 requires the certificate holder to design new roads and road improvements to
17 minimize alteration of the natural drainage within the watershed. Conditions 27 and 41
18 require that modifications of public roads comply with applicable county or state standards.

19 *Policy 2: Require that domestic water and sewage disposal systems for rural*
20 *areas be provided and maintained at levels appropriate for rural use only. Rural*
21 *services are not to be developed to support urban uses.*¹³⁹

22 On-site water wells and septic systems at the O&M facilities would be designed to
23 meet the needs of the operations staff. The applicants do not propose to develop rural services
24 to support urban uses.

25 *Policy 9: Require adequate water supplies for fire fighting as part of significant*
26 *new developments in rural areas in coordination with the appropriate rural fire*
27 *district.*¹⁴⁰

28 The certificate holder would be bound by the site certificate to comply with Condition
29 60, which requires the certificate holder to develop and implement fire safety plans to
30 minimize the risk of fire and to respond appropriately to any fires that occur on the facility
31 site. The condition requires consultation with local fire control authorities.

32 *Policy 19: Where feasible, all utility lines and facilities shall be located on or*
33 *adjacent to existing public or private rights-of-way so as to avoid dividing existing*
34 *farm or forest units; and transmission lines should be located within existing*
35 *corridors as much as possible.*¹⁴¹

36 The proposed expansion of the HWPF would include aboveground collector lines and
37 an optional aboveground 230-kV transmission line. These lines would be located on private
38 land and would not be located within existing public right of way. The certificate holder

¹³⁸ UCCP, Chapter XIV, p. 2.

¹³⁹ UCCP, Chapter XIV, p. 3.

¹⁴⁰ UCCP, Chapter XIV, p. 4.

¹⁴¹ UCCP, Chapter XIV, p. 6.

1 would be bound by the site certificate to comply with Conditions 37 and 38, which require the
2 certificate holder to consult with the landowners to reduce adverse impacts on farming
3 practices and, where feasible, to locate transmission lines along the margins of cultivated
4 areas.

5 Transportation

6 *Policy 20: The county will review right-of-way acquisitions and proposals for*
7 *transmission lines and pipelines so as to minimize adverse impacts on the*
8 *community.*¹⁴²

9 The proposed expansion of the HWPF would not require acquisition of public rights-
10 of-way for the proposed transmission lines. The collector lines and 230-kV interconnection
11 line would be located on private land subject to landowner lease agreements or easements.
12 The certificate holder would be bound by the site certificate to comply with the site certificate
13 conditions. Condition 87 requires the certificate holder to consult with the Utility Safety and
14 Reliability Section of the Oregon Public Utility Commission to ensure that the designs and
15 specifications for transmission lines are consistent with applicable codes and standards.
16 Condition 17 requires the certificate holder to design, construct and operate transmission lines
17 in accordance with the requirements of the National Electrical Safety Code and to develop
18 and implement a program that provides reasonable assurance that all fences, gates, cattle
19 guards, trailers, or other objects or structures of a permanent nature that could become
20 inadvertently charged with electricity are grounded or bonded throughout the life of the line.
21 Condition 86 requires the certificate holder to take reasonable steps to reduce or manage
22 human exposure to electromagnetic fields.

23 Energy Conservation

24 *Policy 1: Encourage rehabilitation/weatherization of older structures and the*
25 *utilization of locally feasible renewable energy resources through use of tax and*
26 *permit incentives.*¹⁴³

27 The proposed amendment would expand the HWPF and increase the generating
28 capacity of the wind power facility. The HWPF uses a “locally feasible renewable energy
29 resource” (wind).

30 Zoning Permit

31 UCDC Section 152.612(D) provides that an applicant granted a conditional use permit
32 or land use decision must obtain a county zoning permit before beginning construction.
33 UCDC Section 152.616(HHH)(4) provides that prior to beginning construction of a wind
34 power generation facility, the applicant must obtain “all other necessary permits” including a
35 county zoning permit. The county has defined “zoning permit” in UCDC Section 152.003, as
36 follows:

37 **ZONING PERMIT.** *An official finding that a planned use of a property, as*
38 *indicted by an application, complies with the requirements of this chapter or meets*
39 *the special conditions of a variance or conditional use permit (see also*
40 *DEVELOPMENT PERMIT).*

¹⁴² UCCP, Chapter XV, p. 5.

¹⁴³ UCCP, Chapter XVI, p. 1.

1 For the reasons discussed herein, the Council finds that the proposed expansion of the
2 HWPF complies with the requirements of the applicable county ordinances.

Conclusions of Law

3 Based on the findings of fact, reasoning and conditions discussed above, the Council
4 finds that the HWPF, with the changes proposed by Amendment #1, would comply with all
5 applicable substantive criteria from Umatilla County. The Council concludes that the HWPF
6 would comply with the Land Use Standard if Amendment #1 were approved.

(b) Soil Protection

OAR 345-022-0022

7 *To issue a site certificate, the Council must find that the design, construction and*
8 *operation of the facility, taking into account mitigation, are not likely to result in a*
9 *significant adverse impact to soils including, but not limited to, erosion and*
10 *chemical factors such as salt deposition from cooling towers, land application of*
11 *liquid effluent, and chemical spills.*
12

Findings of Fact

13 In the *Final Order on the Application*, the Council found that the design, construction
14 and operation of the HWPF would not result in a significant adverse impact to soils.¹⁴⁴ Those
15 findings are incorporated herein by this reference. The Council adopted Conditions 37, 45, 55,
16 56, 77, 78, 79, 82 and 89 to address soil protection measures such as hazardous material
17 handling, spill prevention, stormwater management, compaction, dust control, weed control,
18 revegetation and site restoration.

19 The proposed amendment would expand the HWPF site by approximately 13,027
20 acres, increasing the total area within the expanded site boundary to approximately 20,613
21 acres.¹⁴⁵ Based on the proposed current layout of the facility, construction activities would
22 occur on approximately 1,100 acres within the site boundary, as shown on Table 5 below at
23 page 90. Of this total area, approximately 966 acres would be temporarily disturbed (an
24 increase of approximately 650 acres, compared with the previously-approved facility) and
25 approximately 134 acres would be occupied by permanent facility structures and roads (an
26 increase of approximately 85 acres). Approximately 82 percent of the area affected by
27 construction of the expanded facility is agricultural land. The applicants submitted an updated
28 soils survey addressing the area within the proposed expanded site boundary.¹⁴⁶

29 Although the proposed amendment would increase the area affected by the facility, it
30 would not result in any soil impacts of a kind that the Council has not already addressed in the
31 *Final Order on the Application*. The Council adopts a change to Condition 56 to address the
32 optional construction of a second O&M facility and the Council finds that no other changes to
33 the site certificate conditions related to soil protection are needed. The Council finds that the
34 design, construction and operation of the expanded HWPF, as proposed in the amendment

¹⁴⁴ *Final Order on the Application*, pp. 68-70.

¹⁴⁵ Request for Amendment #1, Section 3, p. 1.

¹⁴⁶ *Addendum to Helix Wind Power Facility Geology Analysis: Preliminary Geotechnical and Geological Reconnaissance Summary*, August 10, 2010 (Request for Amendment #1, Attachment 5).

1 request, would not likely result in significant adverse impacts to soils, taking into account the
2 mitigation required by the site certificate conditions.

Conclusions of Law

3 For the reasons discussed above and subject to the site certificate conditions described
4 herein, the Council concludes that the HWPF would comply with the Soil Protection Standard
5 if Amendment #1 were approved.

(c) Protected Areas

OAR 345-022-0040

6
7 *(1) Except as provided in sections (2) and (3), the Council shall not issue a site*
8 *certificate for a proposed facility located in the areas listed below. To issue a site*
9 *certificate for a proposed facility located outside the areas listed below, the*
10 *Council must find that, taking into account mitigation, the design, construction*
11 *and operation of the facility are not likely to result in significant adverse impact to*
12 *the areas listed below. References in this rule to protected areas designated under*
13 *federal or state statutes or regulations are to the designations in effect as of May*
14 *11, 2007:*

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

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

20 *(c) Wilderness areas established pursuant to The Wilderness Act, 16 U.S.C.*
21 *1131 et seq. and areas recommended for designation as wilderness areas pursuant*
22 *to 43 U.S.C. 1782;*

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

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

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

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

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

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

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

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

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

11 (m) Agricultural experimental stations established by the College of
12 Agriculture, Oregon State University, including but not limited to:

13 Coastal Oregon Marine Experiment Station, Astoria

14 Mid-Columbia Agriculture Research and Extension Center, Hood River

15 Agriculture Research and Extension Center, Hermiston

16 Columbia Basin Agriculture Research Center, Pendleton

17 Columbia Basin Agriculture Research Center, Moro

18 North Willamette Research and Extension Center, Aurora

19 East Oregon Agriculture Research Center, Union

20 Malheur Experiment Station, Ontario

21 Eastern Oregon Agriculture Research Center, Burns

22 Eastern Oregon Agriculture Research Center, Squaw Butte

23 Central Oregon Experiment Station, Madras

24 Central Oregon Experiment Station, Powell Butte

25 Central Oregon Experiment Station, Redmond

26 Central Station, Corvallis

27 Coastal Oregon Marine Experiment Station, Newport

28 Southern Oregon Experiment Station, Medford

29 Klamath Experiment Station, Klamath Falls;

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

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

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

* * *

Findings of Fact

In the *Final Order on the Application*, the Council found that the design, construction and operation of the HWPF were not likely to result in significant adverse impacts to protected areas.¹⁴⁷ These findings are incorporated herein by reference. The amendment request addresses potential impacts to protected areas as a result of construction and operation of facility components within the proposed expanded site boundary.

The analysis area for the protected areas under this standard is the area within the site boundary and 20 miles from the site boundary, including areas outside the state. Table 3 lists all protected areas within the expanded analysis area, a reference to the applicable subparagraph of OAR 345-022-0040(1), the approximate distance from the site boundary, the direction of each protected area from the proposed facility and the state in which each area is located. There are no protected areas within the proposed expanded site boundary, but there are three protected areas within the analysis area that were not considered by the Council in the *Final Order on the Application* (highlighted in boldface).¹⁴⁸

Table 3: Protected Areas within 20 Miles

| Protected Area | 345-022-0040(1) Subparagraph Reference | Distance ¹⁴⁹ (Miles) | Direction from the HWPF | State |
|--|--|---------------------------------|-------------------------|-----------|
| McNary National Wildlife Refuge Headquarters Unit ¹⁵⁰ | (d) | 11 | N to NW | WA |
| Juniper Canyon and Stateline Unit | (d) | 1 | W | OR and WA |
| Wallula Unit | (d) | 5 | N to NW | WA |
| Two Rivers Unit | (d) | 9 | N to NW | WA |
| Peninsula Unit | (d) | 9.5 | N to NW | WA |
| Cold Springs National Wildlife Refuge | (d) | 11 | SW | OR |
| Whitman Mission National Historic Site | (a) | 12 | NE | WA |
| Hat Rock State Park | (h) | 11 | W | OR |
| McKay Creek National Wildlife Refuge | (d) | 18 | S | OR |
| Hermiston Agricultural Research and Extension Center | (m) | 20 | SW | OR |

¹⁴⁷ *Final Order on the Application*, pp. 72-75.

¹⁴⁸ Request for Amendment #1, Section 4, p. 23, Table 4-2.

¹⁴⁹ The Department estimated the distances from the closest edge of the proposed HWPF site boundary as shown on Figure 10a (Request for Amendment #1, Attachment 1).

¹⁵⁰ In 2000, under a Cooperative Agreement between the U.S. Fish and Wildlife Service (USFWS) and the U.S. Army Corps of Engineers, USFWS assumed management authority over the Peninsula, Two Rivers, Wallula, Juniper Canyon and Stateline units. Accordingly, the McNary National Wildlife Refuge includes the management units listed in the table. *McNary National Wildlife Refuge Comprehensive Conservation Plan and Management Direction*, December 2008, Chapter 1, p. 10

A. Noise

1 In the *Final Order on the Application*, the Council found that noise generated during
2 construction and operation of the HWPF would not result in significant adverse impacts to
3 protected areas. The predicted noise levels generated by operation of the HWPF, including the
4 additional turbines proposed in the amendment request, would comply with the Oregon noise
5 control regulations discussed below, beginning at page 99. All of the identified protected
6 areas lie beyond the 36-dBA noise contours.¹⁵¹ Noise generated during facility operation
7 would therefore not exceed the 45-dBA standard for “quiet areas.”¹⁵² Noise produced during
8 construction is exempt from the regulations under OAR 340-035-0035(5)(g). Considering the
9 distance of construction activity from the protected areas as well as the temporary nature of
10 the activity, construction noise is not likely to result in any significant adverse impacts to
11 these areas. The Council finds that noise generated by the operation of the HWPF, including
12 the proposed expansion, would not result in significant adverse impacts to any protected
13 areas.

B. Traffic

14 In the *Final Order on the Application*, the Council found that facility-related road use
15 during construction and operation would not result in significant adverse impacts to any
16 protected area. The applicants predict that construction of the proposed expanded HWPF
17 would not significantly increase the daily truck traffic volume on nearby roads during
18 construction or operation compared to daily truck traffic volumes without the amendment,
19 although the expansion would extend the period of time in which construction workers will
20 utilize state and county roadways.¹⁵³

21 To reduce traffic impacts in the City of Helix, the applicants propose a modification of
22 the primary transportation route that would be used during construction.¹⁵⁴ The proposed
23 primary route to the site would leave I-84 going north on I-82 and then east on US Highway
24 730 to US Highway 12. The route approaches the site from the north, using Hatch Grade
25 Road and Dorran Road.¹⁵⁵ The modified route might increase construction traffic on US
26 Highway 730, compared to the route described in the site certificate application.¹⁵⁶ US
27 Highway 730 provides access to the Wallula and Juniper Canyon/Stateline management units
28 and to Hat Rock State Park. Annual Average Daily Traffic volume (AADT) for US Highway
29 730 east of Oregon Highway 207 is less than 3,000 vehicles and has actually decreased since
30 2002.¹⁵⁷ The applicants estimate that average truck traffic during construction would average

¹⁵¹ Request for Amendment #1, Attachment 12, Figures 1 and 2. Predicted maximum facility noise levels are below 36 dBA at all locations beyond the 36-dBA noise contour line.

¹⁵² The L₅₀ statistical noise level must not exceed 45 dBA, as specified by DEQ Table 9, which is incorporated by reference in OAR 340-035-0035(1)(c). OAR 340-035-0015 defines “quiet area” as “any land or facility designated by the [Environmental Quality] Commission as an appropriate area where the qualities of serenity, tranquility, and quiet are of extraordinary significance and serve an important public need, such as, without being limited to, a wilderness area, national park, state park, game reserve, wildlife breeding area, or amphitheater.”

¹⁵³ Request for Amendment #1, Section 4, p. 43.

¹⁵⁴ Request for Amendment #1, Section 4, p. 43.

¹⁵⁵ The proposed primary transport route is shown on Figure 4 (Request for Amendment #1, Attachment 1).

¹⁵⁶ The previously-proposed primary and secondary routes are described in the *Final Order on the Application*, pp. 122-123.

¹⁵⁷ 2009 Transportation Volume Tables (http://www.oregon.gov/ODOT/TD/TDATA/tsm/docs/2009_TVT.pdf) and Application for a Site Certificate for the Helix Wind Power Facility, Exhibit U, Table U-3.

1 35 truck trips per day.¹⁵⁸ The increased volume of traffic on US Highway 730 is unlikely to
2 result in a significant adverse impact on access to the Wallula and Juniper Canyon/Stateline
3 units or to Hat Rock State Park.

C. Water Use and Wastewater Disposal

4 During construction of the proposed expanded facility, approximately 21 million
5 gallons of water would be needed for dust control, road and earthwork compaction, and
6 concrete mixing, which is an increase of almost 11 million gallons compared with the
7 estimated amount of water needed for construction of the previously-approved HWPF
8 components.¹⁵⁹ Water for construction purposes would be obtained from sources authorized
9 by OWRD, as discussed herein at page 107. Water used for construction purposes would
10 evaporate or be absorbed on the site. No water would be discharged into wetlands or other
11 water bodies. Water use during operation would not increase substantially if the facility is
12 expanded as proposed in the amendment request. Water for operations will come from onsite
13 wells at the previously-approved O&M building and the proposed optional second O&M
14 building. Water use during operation will not exceed 5,000 gallons per day for both O&M
15 buildings. Sanitary wastewater generated during operation would be disposed of in on-site
16 septic systems at the O&M facilities. The Council finds that water use and disposal during
17 construction and operation of the expanded facility would not affect water quantity or water
18 quality within any protected area.

D. Visual Impacts

19 The certificate holder conducted a Zone of Visual Influence (ZVI) analysis to
20 determine the extent to which the turbines within the proposed expanded HWPF site boundary
21 would be visible from the protected areas within the analysis area. A ZVI analysis is a
22 conservative modeling analysis of line-of-sight visibility. The computer model does not
23 account for screening from vegetation or structures that might block the line-of-sight between
24 a viewpoint and the turbine towers. The model does not account for factors such as weather
25 conditions, haze or background landscape that might obscure visibility. The analysis considers
26 a turbine to be “visible” if any part of the turbine structure is within a line-of-sight, based on
27 the maximum blade tip height. The results of the analysis are illustrated by color-coded maps,
28 showing the approximate density of turbine towers or structures visible from any angle in the
29 landscape.

30 To assess the visual impact on protected areas, the applicant’s ZVI maps illustrate
31 potential turbine visibility within 20 miles of the site boundary. The amendment request
32 contains two ZVI maps, one for the maximum turbine layout and one for the minimum
33 turbine layout.¹⁶⁰ The visibility patterns for the expanded facility are similar to the visibility
34 patterns for the previously-approved facility.¹⁶¹

¹⁵⁸ Request for Amendment #1, Section 4, p. 43.

¹⁵⁹ Request for Amendment #1, Section 4, p. 42.

¹⁶⁰ Request for Amendment #1, Attachment 1, Figures 10a (maximum turbine layout) and 10b (minimum turbine layout). The maximum turbine layout includes 134 1.5-MW turbines with a blade tip height of 119 meters; the minimum turbine layout includes 67 3.0-MW turbines with a blade tip height of 150 meters (Request for Amendment #1, Section 4, pp. 3 and 30).

¹⁶¹ ZVI maps for the previously-approved facility are contained in the Application for a Site Certificate for the Helix Wind Power Facility, Exhibit L, Figures L-1 and L-2.

1 The ZVI maps indicate that HWPF wind turbines are not likely to be visible from Hat
2 Rock State Park or from the Stateline/Juniper Canyon units. From most locations in Wallula
3 Unit, no turbines would be visible, and the few turbines that might be visible from some parts
4 of the unit would be at least six miles away. HWPF turbines might be visible from parts of the
5 Cold Springs National Wildlife Refuge in Oregon (at least 11 miles away), from the McNary
6 Wildlife Refuge Headquarters Unit in Washington (at least 11 miles away), and from the Two
7 Rivers and Peninsula management units (9 to 10 miles away). These areas are managed
8 primarily for wildlife habitat and not for scenic views.

9 HWPF wind turbines might be visible from higher elevations within the McKay Creek
10 National Wildlife Refuge. Considering that the closest wind turbines would be at least 18
11 miles away, the visual impact is not likely to be significant. The area is managed primarily for
12 wildlife habitat and not for scenic views.

13 In the *Final Order on the Application*, the Council found that distant views of turbines
14 would not adversely impact the Whitman Mission National Historic Site.¹⁶² Turbines that
15 would be built in the expansion area would be farther from the Mission site and therefore
16 would have less visual impact than the previously-approved HWPF turbines. The Council
17 found that the “scenic resources” and “historic setting of the Mission area” identified by the
18 historic site’s General Management Plan refer primarily to the area immediately adjacent to
19 the Mission and not too distant areas that might be visible from the Mission.

20 The Hermiston Agricultural Research & Extension Center is an extension service of
21 the Oregon State University Agricultural Experiment Station. The Center performs research
22 on the agricultural, biological, social and environmental sciences for the economic, social and
23 environmental benefit of Oregon.¹⁶³ The Center is approximately 20 miles from the western
24 end of the HWPF transmission interconnection corridor and at least 24 miles away from the
25 nearest proposed wind turbine locations. It is unclear from the ZVI maps whether any HWPF
26 wind turbines would be visible from the Center, but considering the distance, the visual
27 impact of any visible turbines is not likely to be significant. The Center is managed for
28 educational and research purposes, not scenic views.

Conclusions of Law

29 For the reasons discussed above, the Council finds that the proposed HWPF expansion
30 area is not within in any protected area listed in OAR 345-022-0040 and that the design,
31 construction and operation of the HWPF, with the changes proposed by Amendment #1, are
32 not likely to result in a significant adverse impact to any protected area. Based on these
33 findings, the Council concludes that the HWPF would comply with the Protected Areas
34 Standard if Amendment #1 were approved.

(d) Scenic Resources

OAR 345-022-0080

35 *(1) Except for facilities described in section (2), to issue a site certificate, the*
36 *Council must find that the design, construction and operation of the facility, taking*
37 *into account mitigation, are not likely to result in significant adverse impact to*
38

¹⁶² *Final Order on the Application*, p. 75.

¹⁶³ Request for Amendment #1, Section 4, p. 24.

1 scenic resources and values identified as significant or important in local land use
2 plans, tribal land management plans and federal land management plans for any
3 lands located within the analysis area described in the project order.

4 * * *

Findings of Fact

5 In the *Final Order on the Application*, the Council found that the design, construction
6 and operation of the HWPF were not likely to result in significant impacts to significant or
7 important scenic resources and values within the analysis area.¹⁶⁴ Those findings are
8 incorporated herein by reference. The Council adopted Conditions 97, 98 and 99 to mitigate
9 the visual impacts of the facility. The proposed amendment would expand the HWPF site
10 boundary and authorize construction of additional wind turbines and associated related or
11 supporting facilities.

12 The expanded HWPF site would consist of facility components spread out within an
13 area of approximately 20,613 acres. The amendment would authorize the certificate holder to
14 construct up to 134 wind turbines within the site boundary. The towers would have a
15 maximum hub height of 100 meters (328 feet) and maximum blade tip height of 150 meters
16 (492 feet). In addition, the amendment would authorize construction of up to four 80-meter
17 (263-foot) meteorological towers, aboveground transmission lines on support structures up to
18 100 feet tall, two 8,000-square-foot O&M buildings and two substations.

19 The amendment request provides information regarding potential impacts to scenic
20 resources within the analysis area (the area within the proposed expanded site boundary and
21 within 10 miles of the site boundary).¹⁶⁵ The certificate holder provided a Zone of Visual
22 Influence (ZVI) analysis using Environmental Systems Research Institute ArcGIS software,
23 which identified areas from which turbines within the expanded HWPF site boundary might
24 be visible from vantage points within the analysis area.¹⁶⁶ The ZVI analysis for the
25 “maximum turbine layout” included 134 1.5-MW turbines with a blade tip height of 119
26 meters (389 feet); the analysis for the “minimum turbine layout” included 67 3.0-MW
27 turbines with a blade tip height of 150 meters (492 feet).¹⁶⁷

28 To decide whether the expanded facility would comply with the Council’s standard,
29 the Council must first determine whether the applicable land use or land management plans
30 for a particular area identify significant or important scenic resources and values. The Council
31 must then decide whether the proposed facility could be visible from areas addressed by those
32 plans and, if so, whether the visibility of the proposed facility would result in significant
33 adverse impacts to the identified scenic resources and values. In the amendment request, the
34 applicants identified applicable local, tribal and federal land management plans within the

¹⁶⁴ *Final Order on the Application*, pp. 76-81.

¹⁶⁵ Request for Amendment #1, Section 4, pp. 29-38.

¹⁶⁶ The results of the ZVI analysis are shown in Figures 11a and 11b (Request for Amendment #1, Attachment 1). The ZVI analysis is a conservative modeling analysis of line-of-sight visibility. The computer model does not account for screening from vegetation or structures that might block the line-of-sight between a viewpoint and the turbine towers. The model does not account for factors such as weather conditions, haze or background landscape that might obscure visibility. The analysis considers a turbine to be “visible” if any part of a turbine or transmission structure is within a line-of-sight, based on the maximum blade tip or transmission structure height.

¹⁶⁷ Request for Amendment #1, Section 4, p. 30.

1 analysis area. The applicants determined that some portion of the proposed expanded facility
 2 might be visible within the managed areas listed in Table 4 below. There are five management
 3 areas that were not considered by the Council in the *Final Order on the Application*
 4 (highlighted in boldface).

Table 4: Land Management Areas

| Management Area | Management | Location | Distance from the HWPf Site Boundary (miles)¹⁶⁸ |
|--|-------------------|------------------------------|---|
| City of Helix | City | Oregon | 2 |
| Umatilla County | County | Oregon | the entire facility site lies within the county |
| Walla Walla County | County | Washington | 1 |
| Benton County | County | Washington | 2.5 |
| Juniper Canyon BLM Lands | Federal | Oregon | 0.5 |
| Lewis and Clark National Historic Trail | Federal | Oregon and Washington | 2 |
| McNary National Wildlife Refuge | | | |
| Juniper Canyon and Stateline Unit | Federal | Oregon | 1 |
| Wallula Unit | Federal | Washington | 5 |
| Two Rivers Unit | Federal | Washington | 9 |
| Peninsula Unit | Federal | Washington | 9.5 |
| Lake Wallula | Federal | Oregon and Washington | 2 |
| Umatilla Indian Reservation | Tribal | Oregon | 9 |

5 City of Helix, Oregon

6 The applicable land use plan for the City of Helix is the *City of Helix Comprehensive*
 7 *Plan* (CHCP). CHCP Goal 5: Open Space, Scenic Areas, Historical Sites, and Natural
 8 Resources, states the following goals:

- 9 *To conserve open space and protect natural and scenic resources.*
- 10 1. *To identify open spaces, scenic and historic areas, and natural resources that*
 11 *should be preserved from urban development.*
- 12 2. *To maintain open space to allow visual relief and space for active and passive*
 13 *recreation.*

14 Under Goal 5, the CHCP includes the following finding:

15 *Hillside sites within and adjacent to the city have views of the Blue Mountains*
 16 *down a primary view corridor to the southeast. Views of the surrounding wheat*
 17 *country are also present throughout much of the community.*

18 The HWPf site lies to the northwest of Helix, and its structures would not interfere
 19 with views of the Blue Mountains to the southeast or with most views of the surrounding

¹⁶⁸ Distance from the management area to the nearest part of the site boundary estimated by the Department based on Figure 11a (Request for Amendment #1, Attachment 1).

1 wheat country from within the city limits. Although portions of some HWPF turbines might
2 be visible from vantage points in the city when a viewer looks northwest across the
3 surrounding wheat country, the CHCP does not identify any specific viewpoints as significant
4 or important. The nearest turbine locations would be at least two miles away from the city
5 limits.¹⁶⁹ The Council finds the proposed expanded HWPF would have no significant adverse
6 impacts on scenic resources that the CHCP identifies as significant or important.

7 Umatilla County, Oregon

8 The UCCP is the applicable local land use plan for the county. In the *Final Order on*
9 *the Application*, the Council made findings regarding scenic resources identified in the
10 UCCP.¹⁷⁰ The Council found that the only significant scenic resource identified in the UCCP
11 is Wallula Gap, a narrow segment of the Columbia River. Wallula Gap is approximately three
12 miles from the nearest portion of the site boundary containing the proposed 230-kV
13 transmission line and approximately eight miles from the nearest portion of the site boundary
14 containing proposed turbine locations. Based on the ZVI analysis, the Council previously
15 found no turbines or transmission structures would be visible from Wallula Gap. The
16 additional structures that would be authorized by the amendment would not affect this
17 finding. The Council finds the proposed expanded HWPF would have no significant adverse
18 impacts on scenic resources that the UCCP identifies as significant or important.

19 Walla Walla County, Washington

20 The applicable local land use plan in Walla Walla County is the *Walla Walla County*
21 *Comprehensive Plan*. In the *Final Order on the Application*, the Council found that the only
22 significant scenic resources identified in the county's plan are the "spectacular views of the
23 Columbia River" from the Wallula Gap National Natural Landmark.¹⁷¹ The additional
24 structures that would be authorized by the amendment would not affect this finding. The
25 Council finds the proposed expanded HWPF would have no significant adverse impacts on
26 scenic resources that the *Walla Walla County Comprehensive Plan* identifies as significant or
27 important.

28 Benton County, Washington

29 The applicable local land use plan in Benton County, Washington, is the *Benton*
30 *County Comprehensive Land Use Plan* (BCCP), most recently amended in November
31 2009.¹⁷² The BCCP includes Goal 40-1, as follows:¹⁷³

32 *To conserve as undeveloped and unmarked for posterity, the visually prominent*
33 *naturally vegetated steep slopes and elevated ridges that define the Columbia*
34 *Basin landscape and are uniquely a product of the ice Age Floods.*

35 The nearest parts of Benton County are at least three miles from the HWPF site
36 boundary and at least eight miles from the nearest proposed turbine locations in the expansion
37 area.¹⁷⁴ Most views from within Benton County toward "visually prominent naturally

¹⁶⁹ Request for Amendment #1, Section 4, p. 34.

¹⁷⁰ *Final Order on the Application*, pp. 78-79.

¹⁷¹ *Final Order on the Application*, p. 79.

¹⁷² Available on-line from the Benton County, Washington, website (www.co.benton.wa.us).

¹⁷³ Benton County Comprehensive Land Use Plan, Chapter 3, p. 14.

¹⁷⁴ Request for Amendment #1, Attachment 1, Figures 11a and 11b.

1 vegetated steep slopes and elevated ridges” do not include a line of sight toward the locations
2 of HWPF turbines and other structures. The Council finds that any HWPF structures that
3 would be visible from vantage points within Benton County are unlikely to cause significant
4 adverse impacts on scenic resources that the BCCP identifies as significant or important.

5 The Benton County Zoning Code provides for designation of Highway Scenic
6 Districts.¹⁷⁵ In the *Final Order on the Application*, the Council found that State Route 14 (SR
7 14) is designated as a Scenic Highway in Benton County. The Council found that SR 14 is
8 more than 20 miles from the HWPF site boundary. The Scenic Highway is outside the scenic
9 resources analysis area for the HWPF (any facility structures that might be visible at that
10 distance would not have a significant visual impact). The additional structures that would be
11 authorized by the amendment would not affect the Council’s previous findings.

12 Juniper Canyon BLM Lands

13 The U.S. Department of the Interior, Bureau of Land Management (BLM), manages
14 several separate tracts of land in and around Juniper Canyon. In the *Final Order on the*
15 *Application*, the Council found that the closest Juniper Canyon BLM land is about a half-mile
16 south of the HWPF transmission corridor.¹⁷⁶ The closest turbine locations in the proposed
17 expansion area are at least three miles from the BLM land. The BLM lands are within the
18 management area addressed by the Baker Area Resource Management Plan (Baker RMP).¹⁷⁷
19 The Baker RMP does not identify any significant or important scenic resources associated
20 with the Juniper Canyon BLM lands.

21 Lewis and Clark National Historic Trail

22 A portion of the Lewis and Clark National Historic Trail (LCNHT) is located within
23 the analysis area. The *Lewis and Clark National Historic Trail Comprehensive Plan for*
24 *Management and Use* is the applicable management plan. The management plan recommends
25 the development of “opportunities for retracement of nearly all portions of the historic
26 Expedition route, either as a water trail, a land trail, or a motor route.”¹⁷⁸ Portions of the
27 “Columbia River Segment” and the “Wallula to Weipe Return Segment” of the LCNHT lie
28 within the HWPF analysis area. The management plan recommends two types of development
29 within these segments: a “water trail” and a “motor route.”¹⁷⁹ The “water trail” lies along the
30 Columbia River, approximately two miles from the HWPF site boundary and seven miles
31 from the nearest proposed turbine locations in the expansion area. The “motor route” lies
32 along modern roads that closely follow the historic route. The nearest segments of the motor
33 route are at least five miles from the HWPF site boundary and at least six miles from the
34 nearest proposed HWPF turbine locations.¹⁸⁰ The management plan does not identify any
35 specific scenic resources within the analysis area as significant or important.¹⁸¹

¹⁷⁵ Benton County Zoning Code, Title 11.40.

¹⁷⁶ *Final Order on the Application*, p. 80.

¹⁷⁷ *Baker Area Resource Management Plan*, Bureau of Land Management, June 1989.

¹⁷⁸ *Lewis and Clark National Historic Trail Comprehensive Plan for Management and Use*, National Park Service, U.S. Department of the Interior (January 1982), p. 3.

¹⁷⁹ *Lewis and Clark National Historic Trail Comprehensive Plan for Management and Use*, p. 69, and pp. 79-80. The water trail and the motor route are shown on Figures 11a and 11b (Request for Amendment #1, Attachment 1).

¹⁸⁰ HWPF Request for Amendment #1, Section 4.5.1, p. 4-36.

¹⁸¹ *Lewis and Clark National Historic Trail Comprehensive Plan for Management and Use*, pp. 69-81.

1 McNary National Wildlife Refuge

2 The Juniper Canyon/Stateline and Wallula management units of the McNary National
3 Wildlife Refuge are located within the analysis area as are portions of the Two Rivers and
4 Peninsula management units. These areas are managed by the U.S. Fish and Wildlife Service
5 (USFWS) under the *McNary National Wildlife Refuge Comprehensive Conservation Plan*.
6 The McNary National Wildlife Refuge is managed primarily for wildlife conservation.¹⁸² The
7 management plan does not identify any significant or important scenic resources.

8 Lake Wallula

9 Lake Wallula is a segment of the Columbia River that consists of the reservoir behind
10 the McNary Dam and extending approximately 64 miles upstream. Wallula Gap is a narrow
11 segment of Lake Wallula that lies just south of the confluence of the Columbia and Walla
12 Walla Rivers. The U.S. Army Corps of Engineers manages much of the shoreline of Lake
13 Wallula under the guidance of the *McNary Master Plan*.¹⁸³ Wallula Gap was declared a
14 National Natural Landmark in 1980 and has been approved for inclusion in the National
15 Registry of Natural Landmarks.¹⁸⁴ In the *Final Order on the Application*, the Council found
16 that some HWPF wind turbines and transmission structures could be visible from parts of
17 Lake Wallula. The Council found that the facility would not be visible from Wallula Gap and
18 therefore the HWPF would have no impact on this identified scenic resource.¹⁸⁵ The
19 additional structures that would be authorized by the amendment would not affect these
20 findings.

21 Umatilla Indian Reservation

22 The westernmost edge of the Umatilla Indian Reservation lies within the analysis area,
23 approximately nine miles southeast of the HWPF site boundary. The reservation is managed
24 under the *Confederated Tribes of the Umatilla Indian Reservation Comprehensive Plan*. The
25 Plan addresses land conservation and protection of natural resources, but it does not identify
26 specific important or significant scenic resources.¹⁸⁶

Conclusions of Law

27 For the reasons discussed above, the Council concludes that the HWPF would comply
28 with the Scenic Resources Standard if Amendment #1 were approved.

(e) **Recreation**

29 **OAR 345-022-0100**

30 *(1) Except for facilities described in section (2), to issue a site certificate, the*
31 *Council must find that the design, construction and operation of a facility, taking*
32 *into account mitigation, are not likely to result in a significant adverse impact to*

¹⁸² *McNary National Wildlife Refuge Comprehensive Conservation Plan*, U.S. Fish and Wildlife Service, December 2008, Chapter 2, pp. 6-44.

¹⁸³ *McNary Master Plan – Lake Wallula*, U.S. Army Corps of Engineers, (<http://www.nww.usace.army.mil/planning/ER/mcnary/default.htm>).

¹⁸⁴ *McNary Master Plan*, Section 4, at 4.01(c)(5).

¹⁸⁵ *Final Order on the Application*, p. 81.

¹⁸⁶ *Confederated Tribes of the Umatilla Indian Reservation Comprehensive Plan*, Confederated Tribes of the Umatilla Indian Reservation, September 2010, pp. 51-128.

1 *important recreational opportunities in the analysis area as described in the*
2 *project order. The Council shall consider the following factors in judging the*
3 *importance of a recreational opportunity:*

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

5 (b) *The degree of demand;*

6 (c) *Outstanding or unusual qualities;*

7 (d) *Availability or rareness;*

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

9 * * *

Findings of Fact

10 In the *Final Order on the Application*, the Council found only one recreational
11 opportunity in the analysis area—the local park and recreation facilities in Touchet,
12 Washington—that could be categorized as important under OAR 345-022-0100.¹⁸⁷ The
13 Council found that the HWPF turbines would not interfere with recreational activities in
14 Touchet. The Council concluded that the design, construction and operation of the proposed
15 HWPF were not likely to result in significant adverse impacts to recreational opportunities in
16 the analysis area. Those findings are incorporated herein by this reference.

17 All land within the proposed expansion area is privately owned. There are no county,
18 state or federally designated recreational lands or facilities within the expanded analysis area
19 (the area within five miles from the proposed site boundary). Recreational opportunities in the
20 analysis area include camping, hiking, nature and wildlife observation, and pheasant
21 hunting.¹⁸⁸ Similar opportunities for each of these activities are available on public and
22 private lands outside the analysis area. Turbines constructed in the expansion area would lie to
23 the south of the previously-approved HWPF turbines and would be less visible from Touchet,
24 which is located approximately 4 miles to the north of the site boundary.¹⁸⁹

25 Local park and recreation facilities exist in Helix, Oregon, approximately two miles
26 south of the expanded site boundary. The park's recreational facilities may be important in
27 Helix because of limited availability. The community park has playground equipment, a
28 picnic gazebo and a public pool.¹⁹⁰ Use of the park is in high demand, although it does not
29 have unique or irreplaceable recreational features. The proposed HWPF turbines are not likely
30 to have an adverse impact on the recreational opportunity. The Council finds that the design,
31 construction and operation of the proposed expansion of the HWPF are not likely to result in
32 significant adverse impacts on important recreational opportunities in Helix.

Conclusions of Law

33 For the reasons discussed above, the Council finds that the design, construction and
34 operation of the HWPF, with the changes proposed by Amendment #1, are not likely to result

¹⁸⁷ *Final Order on the Application*, p. 82.

¹⁸⁸ Request for Amendment #1, Section 4, p. 40.

¹⁸⁹ Request for Amendment #1, Attachment 1, Figure 11a.

¹⁹⁰ Email from Carrie Bennett, member of the Helix Park District board, November 29, 2010.

1 in a significant adverse impact to any important recreational opportunities in the analysis area.
2 The Council concludes that HWPF would comply with the Recreation Standard if
3 Amendment #1 were approved.

(f) Public Health and Safety Standards for Wind Energy 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

13 In the *Final Order on the Application*, the Council found that the certificate holder
14 could design, construct and operate the HWPF to exclude members of the public from close
15 proximity to turbine blades and electrical equipment, to preclude structural failure of the
16 tower or blades that could endanger public safety, and to have adequate safety devices and
17 testing procedures.¹⁹¹ Those findings are incorporated herein by this reference. To ensure
18 public safety, the Council included Conditions 12, 23, 26, 43, 52, 54, 55, 58, 64, 65, 66, 67,
19 68, 69, and 76, and 97 in the site certificate.

20 The proposed amendment would increase the maximum number of wind turbines at
21 the facility from 60 to 134. Revision 14, discussed below at page 116, would modify
22 Condition 26 to reflect this increase. Because the proposed facility expansion would be
23 located on private property, public access would be restricted. The additional wind turbines
24 would be designed and built with the same features to protect public safety as the previously-
25 approved turbines and would be subject to the same site certificate conditions.

26 The proposed amendment would increase the maximum combined length of
27 aboveground 34.5-kV collector line, authorize an optional second substation and authorize an
28 optional segment of 230-kV transmission line (to connect the second substation to the
29 previously-approved substation). The design and construction of these additional components
30 would not result in any new or increased risk of harm to public safety. The new components
31 would be subject to the same site certificate conditions as the previously-approved
32 components.

Conclusions of Law

33 For the reasons discussed above and subject to the site certificate conditions described
34 herein, the Council concludes that the HWPF would comply with the Public Health and
35 Safety Standards for Wind Energy Facilities if Amendment #1 were approved.

¹⁹¹ *Final Order on the Application*, p 84.

(g) Siting Standards for Wind Energy Facilities

OAR 345-024-0015

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

(1) Using existing roads to provide access to the facility site, or if new roads are needed, minimizing the amount of land used for new roads and locating them to reduce adverse environmental impacts.

(2) Using underground transmission lines and combining transmission routes.

(3) Connecting the facility to existing substations, or if new substations are needed, minimizing the number of new substations.

(4) Designing the facility to reduce the risk of injury to raptors or other vulnerable wildlife in areas near turbines or electrical equipment.

(5) Designing the components of the facility to minimize adverse visual features.

(6) Using the minimum lighting necessary for safety and security purposes and using techniques to prevent casting glare from the site, except as otherwise required by the Federal Aviation Administration or the Oregon Department of Aviation.

Findings of Fact

In the *Final Order on the Application*, the Council found that the certificate holder could design and construct the HWPF to reduce cumulative adverse environmental impacts in the vicinity by practicable measures in accordance with the requirements of OAR 345-024-0015.¹⁹² Those findings are incorporated herein by this reference. To address cumulative impacts, the Council included Conditions 38, 57, 68, 91, 94, 97 and 99 in the site certificate.

The proposed amendment would expand the HWPF site and increase the number of wind turbines authorized for construction. Some cumulative impacts would increase, but, for the reasons discussed in the subsections below and subject to the site certificate conditions described herein, the Council finds that the proposed design and construction of the HWPF, with the changes proposed by Amendment #1, would reduce cumulative adverse environmental effects in the vicinity by practicable measures in accordance with the requirements of OAR 345-024-0015.

A. Cumulative Impacts Analysis

The Council's previous findings were based in part on an analysis of cumulative impacts to avian and bat species prepared by Western EcoSystems Technology, Inc., (WEST) that was submitted as an attachment to the site certificate application.¹⁹³ The applicants

¹⁹² *Final Order on the Application*, pp. 84-89.

¹⁹³ Johnson and Erickson, *Avian and Bat Cumulative Effects Associated with 6,100 Megawatts of Wind Energy Development in the Columbia Plateau Ecoregion of Eastern Washington and Oregon*, July 2008 (App, Exhibit P, Attachment P-9).

1 included a more recent cumulative impacts analysis in the Request for Amendment #1.¹⁹⁴ The
2 Council has previously considered this 2010 analysis in the *Final Order on the Application*
3 *for the Montague Wind Power Facility*.¹⁹⁵ The Council incorporates herein its findings from
4 the *Montague* order. In summary, the cumulative impacts analysis estimated annual fatalities
5 of birds and bats in the Columbia Plateau region that might be anticipated if 6,700 MW of
6 wind energy capacity were built in the future. WEST based its estimates on the calculated
7 mean fatality rates derived from the fatality monitoring data from 11 operating wind energy
8 facilities in the region. The data show that 67 percent of all avian fatalities are fatalities of
9 passerines and that 44 percent of passerine fatalities are fatalities of horned larks, one of the
10 most abundant species of songbirds in the region. The rate of horned lark fatalities was
11 considered “not significant from a population standpoint.”

12 WEST reported that wind energy facilities do not appear to have a large impact on
13 migratory birds.”¹⁹⁶ Nevertheless, a nocturnal migrant species, the golden-crowned kinglet,
14 represented the second most common species among the avian fatalities found at existing
15 wind energy facilities, after horned larks.¹⁹⁷ Fatalities of golden-crowned kinglets made up
16 5.6 percent of all avian fatalities. WEST estimated that there would be 938 cumulative
17 fatalities of golden-crowned kinglets per year resulting from 6,700 MW of wind energy
18 facilities in the region. Based on an estimated breeding population of 720,000 in the region,
19 WEST estimated that the fatalities of golden-crowned kinglets would represent 0.13 percent
20 of the breeding population. WEST addressed the cumulative impacts on other species groups,
21 including upland gamebirds, waterfowl/waterbirds/shorebirds, and species classified as
22 sensitive in Oregon or Washington. WEST concluded that there would not be significant
23 population consequences for these species groups.¹⁹⁸

24 WEST concluded that the cumulative impacts of 6,700 MW of wind power would not
25 have significant adverse population consequences for the two State Sensitive raptor species
26 found in the region: Swainson’s hawk and ferruginous hawk.¹⁹⁹ Both species are listed as
27 Birds of Conservation Concern.²⁰⁰ Under OAR 635-100-0040, a wildlife species is eligible to
28 be included on the Sensitive Species list if “its numbers are declining at a rate such that it may
29 become eligible for listing as a threatened species” or if “its habitat is threatened or declining
30 in quantity or quality such that it may become eligible for listing as a threatened species.”²⁰¹
31 WEST estimated that if 6,700 MW of wind power were developed in the region, there would
32 be a cumulative impact of 29 ferruginous hawk fatalities per year. WEST calculated that the
33 fatalities would represent 2.9 percent of the breeding population. WEST estimated that there

¹⁹⁴ Johnson and Erickson, *Avian, Bat and Habitat Cumulative Impacts Associated with Wind Energy Development in the Columbia Plateau Ecoregion of Eastern Washington and Oregon*, February 2010 (Request for Amendment #1, Attachment 9).

¹⁹⁵ *Final Order on the Application for the Montague Wind Power Facility* (September 2010), pp. 81-84

¹⁹⁶ Request for Amendment #2, Attachment 9, p. 13.

¹⁹⁷ Request for Amendment #2, Attachment 9, Table 3.

¹⁹⁸ Request for Amendment #2, Attachment 9, pp. 11-13.

¹⁹⁹ Request for Amendment #2, Attachment 9, pp. 9-11.

²⁰⁰ “Birds of Conservation Concern” are species of migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act. The USFWS lists species as “Birds of Conservation Concern” under a 1988 amendment to the Fish and Wildlife Conservation Act.

²⁰¹ See further discussion of State Sensitive species in the *Final Order on the Application*, p. 107.

1 would be a cumulative impact of 44 Swainson’s hawk fatalities per year, representing only
2 0.44 percent of the Swainson’s hawks in the region.

3 WEST found that only one golden eagle fatality has been recorded at a wind energy
4 facility in the Columbia Plateau region.²⁰² WEST estimated that if 6,700 MW of wind power
5 were developed in the region, there would be a cumulative impact of seven golden eagle
6 fatalities per year.²⁰³ WEST calculated that the fatalities would represent 0.4 percent of the
7 breeding population.

8 Bat species most likely to be affected by wind energy development in the region are
9 silver-haired bats and hoary bats.²⁰⁴ Most fatalities are found in the fall migration period.
10 WEST estimated that fatalities of approximately 3,795 silver haired bats and 3,714 hoary bats
11 would occur in the region per year as a result of 6,700 MW of wind energy development.
12 Hoary bats and silver-haired bats occupy forested habitats during the breeding season, and
13 there is little forested habitat in the region.²⁰⁵ These two bat species are widely distributed
14 throughout North America. WEST concluded that “mortality levels on the order of one to two
15 bats per MW are likely not significant to populations.”

B. Access Roads

16 The Council’s standard encourages the use of existing roads to provide access to the
17 facility site, minimizing the amount of land used for new roads and locating new roads in a
18 manner that reduces adverse environmental impacts. Within the proposed expansion area, the
19 certificate holder would build new gravel roads where existing roads do not provide access to
20 wind turbine locations. The proposed amendment would authorize the construction of 31.2
21 miles of additional gravel access roads and the widening of up to 0.7 miles of existing private
22 roads within the new area. The amendment would increase the total maximum length of new
23 access roads at the HWPF to 47.4 miles. Condition 38 requires that roads be the minimum
24 size necessary for safe operation of the facility. Condition 91 requires the certificate holder to
25 locate new roads to avoid or minimize significant impacts wildlife habitat.

C. Transmission Lines and Substations

26 The standard encourages the use of underground transmission lines, combining
27 transmission routes and minimizing the number of new substations. The Council previously
28 approved construction of up to 18.1 miles of 34.5-kV electric collector cables to connect the
29 turbines to a facility substation. The proposed amendment would increase to overall length of
30 the collector system by 32.7 miles. Condition 85 limits the maximum length of aboveground
31 collector line segments to no more than 30 percent of the total length of the collector system.
32 Under the proposed amendment, the maximum length of aboveground segments of the
33 collector system would increase from approximately 5.4 miles to not more than 15.2 miles.

34 The Council previously approved an aboveground 230-kV transmission line up to 15
35 miles in length to connect the facility substation to an interconnection station. The proposed
36 amendment would authorize construction of an optional 230-kV connection to a new

²⁰² Request for Amendment #2, Attachment 9, Table 3.

²⁰³ Request for Amendment #2, Attachment 9, p. 11.

²⁰⁴ Request for Amendment #2, Attachment 9, p. 14.

²⁰⁵ Request for Amendment #2, Attachment 9, p. 14.

1 substation, but the maximum length of 230-kV transmission line at the HWPF would not
2 increase.²⁰⁶

3 The proposed amendment would authorize the construction of an additional collector
4 substation. The certificate holder would have the option of connecting the collector lines from
5 the new turbines to the previously-approved substation near Butler Grade Road or to a new
6 substation within the proposed expansion area near Juniper Canyon Road.²⁰⁷

D. Wildlife Protection

7 The standard encourages facility design that reduces the risk of injury to raptors or
8 other vulnerable wildlife in areas near turbines or electrical equipment. Condition 94 requires
9 the certificate holder to design and construct the facility to reduce the risk of injuries to avian
10 species, including adhering to the 2006 Avian Powerline Interaction Committee (APLIC)
11 suggested practices for raptor protection on power lines. Condition 91 requires the certificate
12 holder to avoid impacts to Category 1 wildlife habitat and to locate facility components to
13 minimize impacts to high quality native habitat and to retain habitat cover in the general
14 landscape where practicable. Condition 92 requires construction restrictions within 1,300 feet
15 of active Swainson's hawk and ferruginous hawk nests during the sensitive breeding period.
16 Condition 95 requires the certificate holder to provide environmental training to construction
17 and operation personnel, including information on the sensitive species present onsite,
18 precautions to avoid injuring or destroying wildlife or sensitive wildlife habitat, exclusion
19 areas, permit requirements and other environmental issues. Condition 96 requires the
20 certificate holder to impose and enforce a speed limit of 20 miles per hour throughout the
21 facility site during construction and operation (reduced to 10 miles per hour from one hour
22 before sunset to one hour after sunrise on the access road near the known Washington ground
23 squirrel colony). Condition 90 requires the certificate holder to create, enhance, maintain and
24 protect a habitat mitigation area in accordance with the *Habitat Mitigation Plan*.

25 Based on the projected fatalities of raptors, the WEST cumulative impacts analysis
26 concludes that 6,700 MW of wind energy development in the region would not result in
27 significant adverse population impacts. Nevertheless, because Swainson's hawks, ferruginous
28 hawks and golden eagles are all protected under the Migratory Bird Treaty Act (and golden
29 eagles are also protected under the Bald and Golden Eagle Protection Act), any fatalities of
30 these species must be considered significant. The Council finds that the site certificate
31 conditions discussed above are reasonable measures to avoid fatalities of migratory birds.
32 While recognizing that it is not possible to entirely prevent adverse impacts to migratory
33 species, the Council advises certificate holders to identify and implement reasonable and
34 prudent measures to avoid fatalities of migratory species, in addition to the requirements
35 contained in site certificate conditions.²⁰⁸

²⁰⁶ Request for Amendment #1, Section 1, p. 3.

²⁰⁷ The proposed location of the new substation is shown in Figures 2 and 3 (Request for Amendment #1, Attachment 1).

²⁰⁸ An example of measures that may be undertaken voluntarily by a certificate holder is IBR's Avian and Bat Protection Plan, discussed below at page 79.

E. Visual Features

1 The standard encourages facility design that minimizes adverse visual features.
2 Condition 97 requires that turbine towers, nacelles and rotors be uniformly painted in a
3 neutral white color. Pad-mounted cabinets at the base of each turbine tower would be
4 uniformly painted in a neutral gray, white, off-white or earth-tone color to help them blend
5 into the landscape. Low-reflectivity finishes would be used on the O&M building and
6 substation equipment and fencing. No advertising signs would be posted at the facility.
7 Condition 98 requires the certificate holder to design and construct the O&M buildings to be
8 generally consistent with the character of similar buildings used by commercial farmers or
9 ranchers in the area.

F. Lighting

10 The standard requires the use of the minimum lighting necessary for safety and
11 security purposes. Condition 99 restricts the use of turbine lighting to the minimum
12 recommended by the Federal Aviation Administration and requires the use of techniques to
13 prevent casting glare from the site from security lighting at the O&M facilities and substation.
14 The condition requires the minimum lighting necessary nighttime repairs or emergencies.

Conclusions of Law

15 For the reasons discussed above and subject to the site certificate conditions described
16 herein, the Council concludes that the HWPF would comply with the Siting Standards for
17 Wind Energy Facilities if Amendment #1 were approved.

(h) Siting Standards for Transmission Lines

OAR 345-024-0090

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

*(1) Can design, construct and operate the proposed transmission line so that
alternating current electric fields do not exceed 9 kV per meter at one meter above
the ground surface in areas accessible to the public;*

*(2) Can design, construct and operate the proposed transmission line so that
induced currents resulting from the transmission line and related or supporting
facilities will be as low as reasonably achievable.*

Findings of Fact

27 Section (1) of OAR 345-024-0090 sets a limit for electric fields from transmission
28 lines of not more than 9 kV per meter at one meter above the ground surface in areas that are
29 accessible to the public. Section (2) requires measures to reduce the risk of induced current. In
30 the *Final Order on the Application*, the Council found that the certificate holder could design,
31 construct and operate the proposed transmission line components of the HWPF in accordance
32 with the standards described in OAR 345-024-0090.²⁰⁹ Those findings are incorporated herein
33 by reference.

²⁰⁹ *Final Order on the Application*, pp. 89-90.

1 In the *Final Order on the Application*, the Council addressed electric fields generated
2 by aboveground 34.5-kV collector lines and aboveground 230-kV interconnection
3 transmission lines.²¹⁰ The proposed expansion of the HWPF would increase the combined
4 length of aboveground collector lines. In addition, the amendment would allow the option of
5 building a second substation and an additional segment of aboveground 230-kV transmission
6 line to connect the two substations. Alternatively, the applicants request the option to transmit
7 the power generated by the turbines in the expansion area to the previously-approved
8 substation using two parallel, double-circuit, aboveground 34.5-kV collector lines.²¹¹

9 The Council has previously found that the 230-kV transmission line would generate a
10 maximum electric field well below the 9 kV per meter standard.²¹² The Council has also
11 found that single-circuit and double-circuit lines aboveground 34.5-kV collector lines would
12 generate a maximum electric field well below the 9 kV per meter standard.²¹³ The Council
13 has not previously considered the electric field generated by two parallel double-circuit,
14 aboveground 34.5-kV collector lines.

15 The applicants calculated the electric field that would be produced by two parallel
16 double-circuit collector lines using the Electric Power Research Institute's ENVIRO program.
17 Each double-circuit line would be supported by monopole structures, and the two parallel
18 lines would be spaced approximately 75 feet apart.²¹⁴ The assumed peak line loading for the
19 four-circuit system was 100 MW (or 25 MW per circuit), resulting in peak loading value of
20 approximately 418 amperes per phase conductor. The minimum conductor ground clearance
21 was assumed to be 25 feet from the ground at mid-span.²¹⁵ The calculated maximum electric
22 field strength for two parallel double-circuit 34.5-kV lines at one meter above ground surface
23 was 0.208 kV per meter.²¹⁶ This modeled electric field strength is well below the 9-kV
24 electric field standard.

25 Condition 17 requires the certificate holder to design and construct transmission lines
26 in accordance with the requirements of the National Electrical Safety Code and to implement
27 a program that provides for proper grounding of nearby structures that could become charged
28 with an induced voltage from the facility's transmission lines. Conditions 85 and 86 address
29 reasonable steps to reduce or manage human exposure to electromagnetic fields from
30 transmission lines.

Conclusions of Law

31 For the reasons discussed above, the Council concludes that the HWPF would comply
32 with the Siting Standards for Transmission Lines if Amendment #1 were approved.

²¹⁰ For underground collector lines, the electric field is totally contained within the insulation of the cable, and there would be no measurable electric field at the surface.

²¹¹ Request for Amendment #1, Section 4, p. 48.

²¹² *Final Order on the Application*, p. 90. If a new segment of 230-kV line is used to transmit power from the proposed expansion area, it would have the same design characteristics as the 230-kV interconnection line previously considered by the Council.

²¹³ *Final Order on the Application*, p. 89. Additional segments of aboveground collector built for the expansion would have the same design characteristics as the collector lines previously considered by the Council.

²¹⁴ Request for Amendment #1, Attachment 11, p. 2, and Figure 1.

²¹⁵ Request for Amendment #1, Attachment 11, p. 3.

²¹⁶ Request for Amendment #1, Attachment 11, Table 1 and Appendix

4. Standards to Protect Wildlife

(a) Threatened and Endangered Species

OAR 345-022-0070

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

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

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

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

In the *Final Order on the Application*, the Council found that the design, construction and operation of the HWPF would not have the potential to significantly reduce the likelihood of the survival or recovery of any Threatened or Endangered plant or wildlife species listed under Oregon law.²¹⁷ Those findings are incorporated herein by this reference. The proposed amendment would enlarge the facility site and authorize the construction of additional wind turbines and other facility components.

On behalf of the applicants, Northwest Wildlife Consultants (NWC) conducted biological investigations of the proposed expanded site. The NWC investigations included database queries and agency consultations to identify state-listed Threatened and Endangered plant and wildlife species documented to occur within five miles of the expanded site boundary. NWC performed field surveys for special status plant species within the expanded site boundary in May 2010. Raptor nest surveys were conducted in May 2010 within a two-mile buffer of the proposed expanded turbine areas and within a half-mile buffer of the proposed transmission line. A few nest locations were checked on the ground, and transect surveys for special status species were also conducted. The amendment request includes a report on the results of these biological investigations.²¹⁸ No federal or state-listed Threatened or Endangered plant or wildlife species were found within the proposed expanded site boundary based on the field investigations and database reviews.²¹⁹

²¹⁷ *Final Order on the Application*, pp. 90-98.

²¹⁸ NWC, *Helix Wind Power Facility 2010 Biological Investigations for the Proposed Expanded Site Boundary* (August 10, 2010), Request for Amendment, Attachment 8.

²¹⁹ Request for Amendment #1, Attachment 8, p. 10.

1 Washington ground squirrels (a state-listed endangered species) have been observed
2 within 1.25 miles of the expanded site boundary. Condition 91 requires a pre-construction
3 survey of the previously-identified Washington ground squirrel colony to ensure that the
4 sensitive use area is correctly marked with exclusion flagging and avoided during
5 construction. The colony area and a 785-foot buffer area (within suitable foraging or
6 burrowing habitat) is considered Category 1 habitat. Condition 91 requires the certificate
7 holder to avoid any permanent or temporary impacts to Category 1 habitat.

8 The Council has previously found that bald eagles (a state-listed Threatened species)
9 are known to nest and forage along fish-bearing streams throughout Oregon and Washington
10 from late winter to early summer and are known to winter near the Columbia and Walla Walla
11 rivers.²²⁰ Bald eagles may make limited use area within the expanded site boundary for
12 scavenging. The certificate holder would mitigate the risk to bald eagles from wire strikes and
13 electrocution by placing most of the facility collector lines underground. Condition 94
14 requires the certificate holder to design all aboveground transmission line structures according
15 to the APLIC suggested practices for raptor protection on power lines to reduce the risks of
16 wire strikes and electrocution.

17 Condition 95 requires the certificate holder to have a qualified biologist provide
18 environmental training and monitoring during construction. The training includes information
19 on the sensitive species present on the site, precautions to avoid injuring or destroying wildlife
20 or sensitive wildlife habitat, exclusion areas, permit requirements and other environmental
21 issues.

Conclusions of Law

22 For the reasons discussed above, the Council finds that the design, construction and
23 operation of the expanded HWPF do not have the potential to significantly reduce the
24 likelihood of the survival or recovery of any threatened or endangered plant or wildlife
25 species listed under Oregon law. Based on these findings and subject to the site certificate
26 conditions described herein, the Council concludes that the facility would comply with the
27 Threatened and Endangered Species Standard if Amendment #1 were approved.

(b) Fish and Wildlife Habitat

OAR 345-022-0060

28 *To issue a site certificate, the Council must find that the design, construction and*
29 *operation of the facility, taking into account mitigation, are consistent with the fish*
30 *and wildlife habitat mitigation goals and standards of OAR 635-415-0025 in effect*
31 *as of September 1, 2000.*
32

Findings of Fact

33 In the *Final Order on the Application*, the Council found that the design, construction
34 and operation of the HWPF would be consistent with the ODFW habitat mitigation goals and
35 standards.²²¹ The Council made findings regarding the characteristics of the habitat types
36 within the HWPF site boundary.²²² The Council made findings regarding potential habitat

²²⁰ *Final Order on the Application*, p. 95.

²²¹ *Final Order on the Application*, p. 115.

²²² *Final Order on the Application*, pp. 102-107.

1 impacts and mitigation requirements.²²³ Those findings are incorporated herein by this
2 reference.

3 In the amendment request, the applicants assessed the proposed expansion area for
4 special status plant and wildlife species. NWC performed biological investigations that
5 addressed potential impacts to other special-status species. Through database queries and
6 agency consultations, NWC identified special status plant and wildlife species that could
7 occur within the expanded site boundary. NWC performed field surveys for special status
8 species in May 2010. Only one Oregon special status wildlife species was observed: the State
9 Sensitive – Vulnerable grasshopper sparrow.²²⁴ Condition 93 requires the certificate holder to
10 implement measures to avoid or mitigate impacts to sensitive wildlife habitat during
11 construction.

12 Raptor nest surveys were conducted in May 2010 within a two-mile buffer of the
13 proposed expanded turbine areas and within a half-mile buffer of the proposed transmission
14 line. Sixteen active raptor nests and 21 inactive nests were observed within the survey area.
15 The active nests included nests used by red-tailed hawk, ferruginous hawk, Swainson’s hawk,
16 great-horned owl and long-eared owl. Ferruginous hawk is a State Sensitive – Critical species
17 and Swainson’s hawk is State Sensitive – Vulnerable. Overall raptor nest density within the
18 expansion survey area is 0.19 active nests per square mile, which is below the average nest
19 density of other wind projects surveyed.²²⁵ Condition 92 requires restricted construction
20 activity within 1,300 feet of any active ferruginous or Swainson’s hawk nests during the
21 sensitive nesting period. Condition 94 requires the certificate holder to implement measures to
22 reduce the risk of injuries to avian species, including designing all aboveground transmission
23 line structures according to the APLIC suggested practices for raptor protection. Condition 91
24 requires the certificate holder to perform a pre-construction raptor nest survey within a half-
25 mile of the final route of the 230-kV interconnection line in areas not previously surveyed.

26 In June 2010, NWC contacted the Oregon Biodiversity Information Center (ORBIC)
27 to request records of any documented golden eagle nest sites within six miles of the proposed
28 expanded site boundary.²²⁶ Although ORBIC does not actively track golden eagles, it
29 maintains a Point of Observation Database (a repository of information on less-rare native
30 vertebrates in Oregon, which was started in 2006). No confirmed records of golden eagle
31 nests were found within six miles of the expanded site boundary.²²⁷ The golden eagle is not a
32 state-listed or federally-listed threatened or endangered species; nor is it a State Sensitive
33 Species. Golden eagles, however, are protected under the federal Migratory Bird Treaty Act
34 and under the Bald and Golden Eagle Protection Act.

35 The applicants identified habitat categories and subtypes within the proposed
36 expansion area.²²⁸ No habitat types or subtypes were found in the expansion area other than
37 those that occur within the previously-approved HWPF site boundary.²²⁹ The proposed

²²³ *Final Order on the Application*, pp. 108-114.

²²⁴ Request for Amendment #1, Attachment 8, p. 9.

²²⁵ Request for Amendment #1, Attachment 8, Table 4.

²²⁶ Request for Amendment, Attachment 8, p. 5.

²²⁷ Request for Amendment #1, Attachment 8, p. 8.

²²⁸ Request for Amendment #1, Section 4, pp. 26-28, and Attachment 8.

²²⁹ All habitat types within the HWPF site boundary are described in the *Final Order on the Application*, pp. 105-107.

1 amendment would add approximately 13,027 acres to the HWPF site. The applicants assessed
 2 the habitat within the expansion area and estimated the areas of permanent and temporary
 3 impacts.²³⁰ Based on the current layout, the estimated habitat impacts of the HWPF, including
 4 the proposed expansion, are shown in Table 5.²³¹

Table 5: Current Layout Habitat Impacts

| Category and Habitat Description | Habitat Subtype | Acres Within the Site Boundary | Temporary Impact (Acres) | Permanent Impact (Acres) |
|--|-----------------|--------------------------------|--------------------------|--------------------------|
| Category 1 | | | | |
| Conservation Reserve Program Fields | CRP | 4.7 | 0 | 0 |
| Grassland-Steppe | GS | 47.5 | 0 | 0 |
| Subtotal | | 52.2 | 0 | 0 |
| Category 2 | | | | |
| Conservation Reserve Program Fields | CRP | 32 | 0.5 | 0.1 |
| Grassland-Steppe | GS | 412.8 | 27.7 | 3.4 |
| Riparian | RI | 8.3 | 0.2 | <0.01 |
| Low Shrub/Shrub Steppe | SS | 168.4 | 0.7 | <0.01 |
| Upland Trees | UT | 1 | 0 | 0 |
| Subtotal | | 622.5 | 29.1 | 3.5 |
| Category 3 | | | | |
| Conservation Reserve Program Fields | CRP | 2,353.7 | 114.3 | 12.7 |
| Grassland-Steppe | GS | 908.5 | 10.1 | 0.9 |
| Low Shrub/Shrub Steppe | SS | 58.5 | 0.8 | 0.08 |
| Subtotal | | 3,320.7 | 125.2 | 13.68 |
| Category 4 | | | | |
| Conservation Reserve Program Fields | CRP | 254 | 3.5 | 0.01 |
| Grassland-Steppe | GS | 867.9 | 16.7 | 1.18 |
| Low Shrub/Shrub Steppe | SS | 1.2 | 0.1 | 0.02 |
| Subtotal | | 1,123.1 | 20.3 | 1.21 |
| Category 5 | | | | |
| Conservation Reserve Enhancement Prog. | CREP | 0.1 | 0 | 0 |
| Grassland-Steppe | GS | 0.3 | 0.01 | 0.02 |
| Sand Dune – Unstable | SDU | 87.7 | 0 | 0 |
| Subtotal | | 88.1 | 0.01 | 0.02 |

²³⁰ Request for Amendment #1, Attachment 4, Tables 3 and 4, as revised by the applicants' response to the Department's requests for additional information (November 2, 2010).

²³¹ Based on the applicant's habitat assessment for the expansion area and the habitat impacts shown in the *Final Order on the Application*, Tables 8 and 9.

| | | | | |
|-------------------|-----------------|-----------------|---------------|--------------|
| Category 6 | | | | |
| Agriculture | AG | 15,335.5 | 790.7 | 112.7 |
| Developed | DE | 70.8 | 0.82 | 2.6 |
| | Subtotal | 15,406.3 | 791.52 | 115.3 |
| Total Area | | 20,612.9 | 966.1 | 133.7 |

1 The amendment would increase the permanent footprint of the facility by
2 approximately 85.5 acres. Based on the current layout, more than 99 percent of the increase in
3 the permanent footprint (about 85.1 acres) is within Category 6 habitat. Temporary
4 construction impacts would increase by approximately 650 acres, and almost 98 percent of the
5 additional temporary disturbance area (approximately 635 acres) is within Category 6 habitat.
6 Condition 89 requires the certificate holder to restore all temporary disturbance areas after
7 completion of construction, in compliance with the *Revegetation Plan*.

8 For micro-siting purposes, the applicants estimated the maximum habitat impacts that
9 could occur within the expansion area. To estimate maximum impacts, the applicants shifted
10 the layout of component locations into higher-rated habitats within the micro-siting areas. The
11 applicant illustrated the hypothetical maximum habitat impacts layout in Figure 3 of the
12 amendment request.²³² Based on the maximum habitat impact layout, the estimated habitat
13 impacts of the HWPF, including the proposed expansion, are shown in Table 6.²³³

Table 6: Maximum Habitat Impacts

| Category and Habitat Description | Habitat Subtype | Temporary Impact (Acres) | Permanent Impact (Acres) |
|---|------------------------|---------------------------------|---------------------------------|
| Category 1 | | | |
| Conservation Reserve Program Fields | CRP | 0 | 0 |
| Grassland-Steppe | GS | 0 | 0 |
| | Subtotal | 0 | 0 |
| Category 2 | | | |
| Conservation Reserve Program Fields | CRP | 2.8 | 1 |
| Grassland-Steppe | GS | 135.6 | 10.6 |
| Riparian | RI | 0.5 | <.01 |
| Low Shrub/Shrub Steppe | SS | 4.2 | 0.2 |
| Upland Trees | UT | 0 | 0 |
| | Subtotal | 143.1 | 11.8 |

²³² Request for Amendment #1, Attachment 4, Figure 3.

²³³ Based on the applicant's maximum habitat impact assessment for the expansion area and the habitat impacts shown in the *Final Order on the Application*, Table 8.

| | | | |
|--|------|----------------|--------------|
| Category 3 | | | |
| Conservation Reserve Program Fields | CRP | 132.1 | 11.9 |
| Grassland-Steppe | GS | 37.2 | 3.1 |
| Low Shrub/Shrub Steppe | SS | 3.8 | 0.34 |
| Subtotal | | 173.1 | 15.34 |
| Category 4 | | | |
| Conservation Reserve Program Fields | CRP | 3.5 | 0.01 |
| Grassland-Steppe | GS | 73.3 | 8.4 |
| Low Shrub/Shrub Steppe | SS | 0.09 | 0.02 |
| Subtotal | | 76.89 | 8.43 |
| Category 5 | | | |
| Conservation Reserve Enhancement Prog. | CREP | 0 | 0 |
| Grassland-Steppe | GS | 0.01 | 0.02 |
| Sand Dune – Unstable | SDU | 0 | 0 |
| Subtotal | | 0.01 | 0.02 |
| Category 6 | | | |
| Agriculture | AG | 748.8 | 99.3 |
| Developed | DE | 1.22 | 2.6 |
| Subtotal | | 750.02 | 101.9 |
| Total Area | | 1,143.1 | 137.5 |

1 The maximum habitat impacts analysis allows for facility micrositing while ensuring
2 that the certificate holder can mitigate for the habitat impacts of any micrositing
3 configuration. The maximum habitat impacts analysis shapes the upper bounds of the quantity
4 and quality of mitigation acres that would be required. Condition 91 requires the certificate
5 holder to avoid or minimize temporary and permanent impacts to high quality native habitat
6 in the final design. In addition, Condition 91 prohibits the construction of facility components
7 within Category 1 habitat and prohibits temporary construction disturbance of Category 1
8 habitat.

9 Condition 90 requires the certificate holder to implement the *Habitat Mitigation Plan*.
10 In Revision 25, the modification of Condition 90 incorporates changes in the *Habitat*
11 *Mitigation Plan* as shown in Attachment C. The changes to the plan reflect the increased
12 acreages potentially affected by the expanded facility as shown in Table 6. Under Condition
13 30, the certificate holder must provide to the Department a description of the final design
14 configuration and an assessment of the affected habitats before beginning construction.²³⁴ The
15 actual habitat impacts and the size of the mitigation area required under Condition 90 are
16 determined according to the final configuration of facility components. Condition 30 requires
17 consultation with ODFW at the time of the pre-construction habitat assessment and allows the

²³⁴ The certificate holder also must provide this information to the Umatilla County Planning Department.

1 Department to employ a qualified contractor to confirm the habitat assessment by on-site
2 inspection.

3 In the *Final Order on the Application*, the Council made findings regarding mitigation
4 of potential adverse impacts to wildlife and wildlife habitat.²³⁵ Those findings are
5 incorporated herein by this reference. Condition 88 requires the certificate holder to
6 implement the *Wildlife Monitoring and Mitigation Plan* (WMMP).²³⁶ Condition 89 requires
7 the certificate holder to implement the *Revegetation Plan*.²³⁷

8 In addition to the measures to protect wildlife and wildlife habitat that are addressed
9 by site certificate conditions, IBR has developed the Avian and Bat Protection Plan (ABPP) in
10 coordination with the U.S. Fish and Wildlife Service (USFWS).²³⁸ The ABPP is intended to
11 comply with USFWS regulations, the Endangered Species Act, the Migratory Birds Treaty
12 Act, and the Bald and Golden Eagle Protection Act. As described by IBR, the ABPP
13 “identifies a series of best practices that facilitate adherence to the USFWS guidelines and
14 promote operation [of wind energy facilities] in an environmentally sustainable manner.” The
15 ABPP is a voluntary measure that is above and beyond the requirements of the site certificate.
16 IBR is developing a Wildlife Monitoring and Reporting System (WMRS), which is “a
17 systematic approach to monitoring and reporting bird and bat fatalities for the life of the
18 project and to assessing long-term operational impacts (trends) of the project.” The WMRS
19 program addresses the requirements in Section 5 of the WMMP (“Ongoing Reporting and
20 Handling of Wildlife Injuries and Fatalities”).²³⁹

Conclusions of Law

21 For the reasons discussed above and subject to the site certificate conditions described
22 herein, the Council concludes that the expanded HWPF would comply with the Fish and
23 Wildlife Habitat Standard if Amendment #1 were approved.

5. Standards Not Applicable to Site Certificate Eligibility

24 Under ORS 469.501(4), the Council may issue a site certificate without making the
25 findings required by the standards discussed in this section (Structural Standard, Historic,
26 Cultural and Archaeological Resources Standard, Public Services Standard and Waste
27 Minimization Standard).²⁴⁰ Nevertheless, the Council may impose site certificate conditions
28 based on the requirements of these standards.

²³⁵ *Final Order on the Application*, pp. 110-113.

²³⁶ *Final Order on the Application*, Attachment A.

²³⁷ *Final Order on the Application*, Attachment B.

²³⁸ Applicant’s table of responses to the Department’s request for additional information (November 2, 2010), pp. 7-8 (responding to comments from the USFWS).

²³⁹ *Final Order on the Application*, Attachment A, pp. 17-18.

²⁴⁰ This statute provides that the Council may not impose certain standards “to approve or deny an application for an energy facility producing power from wind.” ORS 469.300 defines an “application” as “a request for approval of a particular site or sites for the construction and operation of an energy facility or the construction and operation of an additional energy facility upon a site for which a certificate has already been issued, filed in accordance with the procedures established pursuant to ORS 469.300 to 469.563, 469.590 to 469.619, 469.930 and 469.992.” Although ORS 469.501(4) does not explicitly refer to a request for a site certificate amendment, we assume that the Legislature intended it to apply.

(a) Structural Standard

OAR 345-022-0020

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

(a) The applicant, through appropriate site-specific study, has adequately characterized the site as to Maximum Considered Earthquake Ground Motion identified at International Building Code (2003 Edition) Section 1615 and maximum probable ground motion, taking into account ground failure and amplification for the site specific soil profile under the maximum credible and maximum probable seismic events; and

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

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

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

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

* * *

Proposed Conditions

In the *Final Order on the Application*, the Council made findings regarding the seismic, geological and soil hazards within the HWPF site boundary.²⁴¹ Those findings are incorporated herein by reference. Council rules include mandatory conditions regarding geotechnical investigation and protection of the public from seismic hazards (Conditions 12, 13 and 14). The Council adopted Conditions 52, 53, 54 and 77 to address the potential seismic and non-seismic geologic hazards at the facility site.

The amendment request contains a geological reconnaissance analysis of the proposed expansion area.²⁴² The expansion area is geologically similar to the previously-approved HWPF site. The Council finds that no changes to the site certificate conditions related to the Structural Standard are needed.

²⁴¹ *Final Order on the Application*, pp. 116-117.

²⁴² *Addendum to Helix Wind Power Facility Geology Analysis: Preliminary Geotechnical and Geological Reconnaissance Summary* (August 10, 2010), Request for Amendment #1, Attachment 5.

(b) Historic, Cultural and Archaeological Resources

OAR 345-022-0090

(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that the construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impacts to:

(a) Historic, cultural or archaeological resources that have been listed on, or would likely be listed on the National Register of Historic Places;

(b) For a facility on private land, archaeological objects, as defined in ORS 358.905(1)(a), or archaeological sites, as defined in ORS 358.905(1)(c); and

(c) For a facility on public land, archaeological sites, as defined in ORS 358.905(1)(c).

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

* * *

Proposed Conditions

In the *Final Order on the Application*, the Council reviewed survey information regarding historic, cultural and archaeological resources (collectively referred to herein as “cultural resources”) for the area within the proposed HWPF site boundary.²⁴³ The Council’s previous findings are incorporated herein by this reference. The Council adopted Conditions 48, 49, 50 and 51 to safeguard cultural resources within the HWPF site boundary. The applicants hired CH2M HILL to conduct cultural resource surveys for the expansion area and provided an addendum to the cultural resources survey report.²⁴⁴ The cultural resource surveys were conducted in consultation with the State Historic Preservation Office (SHPO) and the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). On-site field investigation was performed in May 2010 by CH2MHILL and CTUIR cultural resources staff. The surveyors identified five historic-era archaeological sites and three historic-era isolates.

SHPO reviewed the addendum report and advised the Department that the proposed expansion would have no effect on any known cultural resources.²⁴⁵ SHPO recommended that 30-meter no-entry construction buffers be flagged during construction to protect the five historic sites identified in the report. Construction buffers are addressed by Condition 48, which provides for a 50-foot buffer. In the amendment request, the applicants propose a modification of Condition 48 to increase the buffer to 30 meters, and the Council adopts the revision, as discussed in Revision 17 below at page 118.²⁴⁶

²⁴³ *Final Order on the Application*, pp. 117-119.

²⁴⁴ Request for Amendment #1, Section 4, pp. 38-39, and Attachment 10 (confidential submission).

²⁴⁵ Letter from Susan White, SHPO, December 9, 2010.

²⁴⁶ The applicants’ proposed site certificate revisions are shown in the Request for Amendment #1, Attachment 3.

1 The CTUIR also reviewed the addendum report. The CTUIR does not anticipate that
2 the proposed expansion would have any direct or indirect impacts on traditional use areas or
3 historic properties with cultural or religious significance.²⁴⁷

4 Condition 49 requires on-site pre-construction investigations of any areas that would
5 be disturbed by construction that lie outside previously-surveyed areas. The applicants
6 propose a modification of Condition 49 to include a reference to the cultural resource surveys
7 conducted in 2010, and the Council adopts the modification, as discussed below in Revision
8 18. Condition 50 requires an environmental training course for construction workers,
9 including information on avoiding impacts to cultural resources. Condition 51 requires the
10 certificate holder to cease all ground-disturbing activities in the immediate area if any cultural
11 resources are found during construction of the facility. Except as described in Revisions 17
12 and 18, the Council finds that no changes to the site certificate conditions related to the
13 Historic, Cultural and Archaeological Resources Standard are needed.

(c) Public Services

OAR 345-022-0110

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

21
22 *(2) The Council may issue a site certificate for a facility that would produce power*
23 *from wind, solar or geothermal energy without making the findings described in*
24 *section (1). However, the Council may apply the requirements of section (1) to*
25 *impose conditions on a site certificate issued for such a facility.*

26 * * *

Proposed Conditions

27 In the *Final Order on the Application*, the Council addressed the potential impacts of
28 construction and operation of HWPF on the ability of providers within the analysis area to
29 provide public services.²⁴⁸ The Council's previous findings are incorporated herein by this
30 reference. The Council adopted Conditions 27, 41, 43, 71, 72, 75, 77, 82, 83, 103, 104, 105
31 and 106 related to traffic impacts, solid waste and wastewater, operational water use and
32 measures to protect health and safety. The amendment request would expand the facility site
33 boundary and increase the number of turbines and other facility components but would not
34 substantially change the analysis of impacts to public services.

35 Condition 77 requires the certificate holder to conduct construction activities in
36 accordance with the NPDES Storm Water Discharge General Permit #1200-C, which ensures
37 appropriate on-site handling of storm water and measures to reduce erosion. The applicants

²⁴⁷ Email from Teara Farrow Ferman, CTUIR, December 16, 2010.

²⁴⁸ Final Order on the Application, pp. 119-123.

1 have prepared a revised Erosion and Sediment Control Plan to prevent and mitigate potential
2 impacts to soils from construction activities within the expanded facility site boundary.²⁴⁹

3 The applicants estimate that up to 10.6 million gallons of water would be needed for
4 construction of the previously approved components of the HWPF and an additional 10.7
5 million gallons of water would be needed for construction of the facility components in the
6 proposed expansion area.²⁵⁰ The applicants' preferred source of water is the City of Helix
7 under the City's existing municipal water right. Alternatively, water could be obtained from
8 private wells in the area under limited licenses issued to the construction contractor by
9 OWRD. Water use is described further herein below at page 107.

10 The amendment request describes an additional 50 workers needed for construction of
11 the proposed HWPF expansion, for a total of up to 170 construction workers for the facility as
12 a whole, and up to 17 permanent staff required for facility operation.²⁵¹ These increases are
13 not likely to add a significant burden to local housing, schools, hospitals or other public
14 service providers. The increased duration of construction needed for the expanded HWPF
15 would extend the duration of fire risks but would not add a new type of risk or significantly
16 affect local emergency response providers.²⁵²

17 The amendment request describes the expected increased truck volumes on local
18 roads.²⁵³ To reduce traffic impacts in the City of Helix, the applicants propose a modification
19 of the primary transportation route that would be used during construction.²⁵⁴ The proposed
20 primary route to the site would leave I-84 going north on I-82 and then east on US Highway
21 730 to US Highway 12. The route approaches the site from the north, using Hatch Grade
22 Road and Dorran Road.²⁵⁵ The increased construction period would extend the time that
23 construction workers are using local roads and extend the duration of traffic risks but would
24 not create a significant new traffic safety risk. Although there might be traffic delays on state,
25 county or local roadways during construction, the applicants anticipate that the delays would
26 be short-term and temporary.²⁵⁶ The applicants anticipate that road modifications might be
27 needed on some county and local roads to accommodate construction traffic.²⁵⁷ Condition 41
28 requires the certificate holder to obtain the approval of local transportation officials before
29 constructing any modifications to public roads.

30 As described below in Revision 16, the Council adopts a change to Condition 41 to
31 include road modifications related to the proposed expansion. In addition, the Council adopts
32 changes to Conditions 83 and 104 to address the optional construction of a second O&M
33 facility.

²⁴⁹ Request for Amendment #1, Attachment 6.

²⁵⁰ Request for Amendment #1, Section 4, p. 42.

²⁵¹ Request for Amendment #1, Section 4, p. 43.

²⁵² Request for Amendment #1, Section 4, p. 43.

²⁵³ Request for Amendment #1, Section 4, pp. 43-44.

²⁵⁴ Request for Amendment #1, Section 4, p. 43. The modified route

²⁵⁵ The proposed primary transport route is shown on Figure 4 (Request for Amendment #1, Attachment 1).

²⁵⁶ Request for Amendment #1, Section 4, p. 43.

²⁵⁷ Request for Amendment #1, Section 4, p. 44.

(d) Waste Minimization

OAR 345-022-0120

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

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

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

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

Proposed Conditions

In the *Final Order on the Application*, the Council made findings regarding the solid waste and wastewater likely to be generated during the construction, operation and retirement of HWPF and the impact on surrounding communities.²⁵⁸ The Council’s previous findings are incorporated herein by reference. The Council adopted Conditions 55, 56, 103, 104, 105 and 106 to address waste management concerns.

The proposed amendment would expand the site boundary and add turbines and other wind facility components, but the proposed changes would not affect the analysis of waste minimization.²⁵⁹ The Council finds that no changes to the site certificate conditions related to the Waste Minimization Standard are needed.

V. OTHER APPLICABLE REGULATORY REQUIREMENTS: FINDINGS AND CONCLUSIONS

1. Requirements under Council Jurisdiction

Under ORS 469.503(3) and under the Council’s General Standard of Review (OAR 345-022-0000), the Council must determine whether a facility complies with “all other Oregon statutes and administrative rules identified in the project order, as amended, as applicable to the issuance of a site certificate for the proposed facility.” Other Oregon statutes and administrative rules that are applicable to the changes requested in Amendment #1 include the Department of Environmental Quality (DEQ) noise control regulations, the regulations adopted by the Department of State Lands (DSL) for removal or fill of material affecting waters of the state, the OWRD regulations for water rights and the Council’s statutory authority to consider protection of public health and safety.

²⁵⁸ Final Order on the Application, pp. 124-126.

²⁵⁹ Request for Amendment #1, Section 4, pp. 44-45.

(a) Noise Control Regulations

The applicable noise control regulations are as follows:

OAR 340-035-0035

Noise Control Regulations for Industry and Commerce

(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.

1 (IV) For purposes of determining whether a proposed wind energy facility
2 would satisfy the ambient noise standard where a landowner has not waived the
3 standard, noise levels at the appropriate measurement point are predicted
4 assuming that all of the proposed wind facility's turbines are operating between
5 cut-in speed and the wind speed corresponding to the maximum sound power level
6 established by IEC 61400-11 (version 2002-12). These predictions must be
7 compared to the highest of either the assumed ambient noise level of 26 dBA or to
8 the actual ambient background L10 and L50 noise level, if measured. The facility
9 complies with the noise ambient background standard if this comparison shows
10 that the increase in noise is not more than 10 dBA over this entire range of wind
11 speeds.

12 (V) For purposes of determining whether an operating wind energy facility
13 complies with the ambient noise standard where a landowner has not waived the
14 standard, noise levels at the appropriate measurement point are measured when
15 the facility's nearest wind turbine is operating over the entire range of wind
16 speeds between cut-in speed and the windspeed corresponding to the maximum
17 sound power level and no turbine that could contribute to the noise level is
18 disabled. The facility complies with the noise ambient background standard if the
19 increase in noise over either the assumed ambient noise level of 26 dBA or to the
20 actual ambient background L10 and L50 noise level, if measured, is not more than
21 10 dBA over this entire range of wind speeds.

22 (VI) For purposes of determining whether a proposed wind energy facility
23 would satisfy the Table 8 standards, noise levels at the appropriate measurement
24 point are predicted by using the turbine's maximum sound power level following
25 procedures established by IEC 61400-11 (version 2002-12), and assuming that all
26 of the proposed wind facility's turbines are operating at the maximum sound
27 power level.

28 (VII) For purposes of determining whether an operating wind energy facility
29 satisfies the Table 8 standards, noise generated by the energy facility is measured
30 at the appropriate measurement point when the facility's nearest wind turbine is
31 operating at the windspeed corresponding to the maximum sound power level and
32 no turbine that could contribute to the noise level is disabled.

33 * * *

Findings of Fact

34 In the *Final Order on the Application*, the Council concluded that the HWPF, subject
35 to site certificate conditions, would comply with the state noise control regulations.²⁶⁰ The
36 Council's findings were based on an analysis of predicted noise levels for two default layouts:
37 one layout contained 68 GE 1.5-MW turbines and the other layout contained 34 Vestas 3.0-
38 MW turbines.²⁶¹ The Council found that the HWPF would comply with the applicable noise
39 regulations if it were constructed in accordance with the default layouts and if the certificate

²⁶⁰ *Final Order on the Application*, p. 133.

²⁶¹ The layouts included wind turbines east of Butler Grade Road, but these turbine locations were subsequently removed from the project (*Final Order on the Application*, p. 130).

1 holder acquired noise waivers from the owners of five properties where the predicted noise
2 levels exceeded the ambient degradation limit.²⁶²

3 In the amendment request, the applicants provided a noise analysis based on two
4 revised turbine layouts.²⁶³ The 1.5-MW turbine layout contains 43 turbines within the
5 previously-approved area and 91 turbines within the proposed expansion area for a total of
6 134 GE 1.5-MW wind turbines.²⁶⁴ The 3.0-MW turbine layout contains 28 turbines within the
7 previously-approved area and 39 turbines within the proposed expansion area for a total of 67
8 Vestas 3.0-MW V100 turbines.²⁶⁵ The analysis includes the noise generated by the wind
9 turbines (operating between cut-in wind speed and maximum sound power level wind speed)
10 and the noise that would radiate to each receiver from the power transformers located at the
11 two proposed substations. The applicants' noise analysis was conducted by Mr. Mark
12 Bastasch, P.E., of CH2M HILL. Mr. Kerrie Standlee, P.E. of Daly-Standlee & Associates,
13 Inc., reviewed the analysis for the Department.

14 Under the regulations, noise generated by a new wind energy facility located on a
15 previously unused site must comply with two tests: the "ambient degradation test" and the
16 "maximum allowable test." For the ambient degradation test, the applicants elected to use the
17 assumed ambient hourly L₅₀ noise level of 26 dBA for the background ambient noise level, as
18 allowed under OAR 340-035-0035(1)(b)(B)(iii)(I).²⁶⁶ Accordingly, to comply with the
19 ambient degradation test based on the assumed background level, the noise generated by the
20 facility must not cause the hourly L₅₀ noise level at any noise sensitive receiver to exceed 36
21 dBA.²⁶⁷

22 To comply with the maximum allowable test, facility-generated noise must not exceed
23 the noise limits specified in Table 8 of the regulation. Specifically, the noise generated by the
24 facility must not exceed an hourly L₅₀ noise level of 50 dBA at any noise sensitive receiver.²⁶⁸

25 Based on the applicants' data, the maximum predicted noise levels generated by the
26 HWPF, including the expansion proposed by the amendment request, are as shown in Table 7
27 below. Data shown in boldface exceed the 36-dBA ambient degradation limit that applies
28 when the assumed background ambient hourly L₅₀ noise level of 26 dBA is used. The data are

²⁶² *Final Order on the Application*, p. 132.

²⁶³ *Addendum to Helix Wind Power Facility Noise Analysis*, August 10, 2010 (Request for Amendment #1, Attachment 12).

²⁶⁴ Request for Amendment #1, Attachment 12, Figure 1, and Revised Figure 1, Certificate Holder Responses (November 2, 2010), Attachment 6.

²⁶⁵ Request for Amendment #1, Attachment 12, Figure 2, and Revised Figure 2, Certificate Holder Responses (November 2, 2010), Attachment 6.

²⁶⁶ In this discussion, "dBA" refers to sound levels in decibels as measured on a sound level meter using the A-weighted filter network, which corresponds closely to the frequency response of the human ear.

²⁶⁷ The regulation applies the test "as measured at an appropriate measurement point." The "appropriate measurement point," as defined by OAR 340-035-0015(3), is "25 feet (7.6 meters) toward the noise source from that point on the noise sensitive building nearest the noise source" or "that point on the noise sensitive property line nearest the noise source," whichever is farther from the source. OAR 340-035-0015(38) defines "noise sensitive property" as "real property normally used for sleeping, or normally used as schools, churches, hospitals, or public libraries." Private residences are the only "noise sensitive properties" potentially affected by the HWPF. We refer to these as the "noise sensitive receivers."

²⁶⁸ An hourly L₅₀ noise level of 50 dBA is the maximum allowable nighttime noise limit (10:00 PM to 7:00 AM), as shown on Table 12 in the *Final Order on the Application*, p. 129.

1 presented in two columns, representing the two turbine layouts that were analyzed. Where no
 2 value is shown, the predicted noise level is below 32 dBA.²⁶⁹

3 Public comments on the Department’s proposed order indicated that three noise
 4 sensitive receivers had been omitted from the noise contour maps and noise level tables that
 5 the applicants submitted in August 2010. In response to the Department’s request, the
 6 applicants provided corrected maps and tables.²⁷⁰ The Department posted the corrected maps
 7 and tables on the Department’s website and notified the public of this information in a public
 8 notice dated March 11, 2011, which also extended the public comment deadline to April
 9 11.²⁷¹ Table 7 below includes predicted noise levels at the three previously omitted receivers
 10 (R-86a, R-133 and R-136).

Table 7: Predicted Noise Levels

| Receiver | 1.5-MW Turbine Layout Predicted Maximum Hourly L ₅₀ Noise Level (dBA) | 3.0-MW Turbine Layout Predicted Maximum Hourly L ₅₀ Noise Level (dBA) |
|-----------------|---|---|
| R-1 | | 35 |
| R-2 | 37 | 41 |
| R-3 | 47 | 50 |
| R-5 | 47 | 48 |
| R-9 | 44 | 49 |
| R-10 | 44 | 48 |
| R-11 | 36 | 41 |
| R-12 | 36 | 41 |
| R-13 | 36 | 40 |
| R-14 | 35 | 39 |
| R-15 | 37 | 41 |
| R-16 | 37 | 41 |
| R-17 | 37 | 40 |
| R-24 | 37 | 37 |
| R-45 | | 33 |
| R-68 | 42 | 46 |

²⁶⁹ Receiver identification numbers match those shown on Figures 1 and 2, Request for Amendment #1, Attachment 12.

²⁷⁰ Email from Chase Whitney, March 15, 2011. The applicants removed one previously listed receiver (R-97) from the tables after confirming with the property owner that the residence has been abandoned and removed from the Umatilla County tax rolls (email from Chase Whitney, March 2, 2011).

²⁷¹ The Department later extended the public comment period further, to April 27.

| | | |
|-------|-----------|-----------|
| R-69 | 40 | 45 |
| R-72 | 40 | 45 |
| R-73 | 48 | 50 |
| R-75 | 45 | 46 |
| R-76 | 42 | 46 |
| R-81 | 45 | 48 |
| R-82 | 41 | 45 |
| R-83 | 43 | 46 |
| R-84 | 39 | 42 |
| R-85 | 37 | 40 |
| R-86 | 38 | 42 |
| R-86a | 39 | 43 |
| R-87 | 40 | 44 |
| R-88 | | 33 |
| R-89 | | 34 |
| R-90 | | 35 |
| R-91 | | 34 |
| R-92 | 33 | 36 |
| R-93 | | 33 |
| R-94 | | 34 |
| R-95 | 45 | 35 |
| R-96 | 40 | 37 |
| R-133 | 39 | 42 |
| R-136 | 44 | 47 |

1 The data in Table 7 show that the predicted noise levels at all receivers would comply
2 with the 50-dBA maximum allowable test under either layout. The noise level generated by
3 the HWPf is predicted to be at or just below the 50 dBA limit at several residences.

4 The maximum allowable noise level limit specified in Table 8 of the regulation applies
5 to each industrial or commercial noise source, independent of any other noise source that may
6 exist near the receiver. For example, a hypothetical residence that is located near wind
7 turbines that belong to two different wind energy facilities could receive noise from both

1 facilities. If the property owner has granted noise waivers to the operators of both wind
2 facilities and if the noise received at the residence from one wind facility is 50 dBA and
3 between 41 and 50 dBA from the second wind energy facility, then the combined maximum
4 noise level from the two energy facilities could be 51 to 53 dBA at the residence (noise levels
5 are combined by logarithmic summation). The noise from each facility, however, would be in
6 compliance with the maximum allowable test.²⁷² In this hypothetical example, the property
7 owner could decline to grant a noise waiver to either facility and effectively prevent wind
8 turbine noise from ever reaching these levels at the residence.²⁷³

9 The ambient degradation test sets a significantly lower noise limit than the maximum
10 allowable test. The ambient degradation test prohibits an increase of more than 10 dBA
11 compared to the ambient noise levels that occur at the receiver if the wind facility is not built.
12 The ambient degradation test, therefore, takes into account the cumulative effect of a new
13 facility together with pre-existing noise sources. Based on the information in Table 7, if an
14 expanded HWPf were built according to the 1.5-MW turbine layout, operation of the facility
15 could increase the ambient statistical noise level by more than 10 dBA above the assumed
16 background L₅₀ ambient noise level of 26 dBA (therefore exceeding the ambient degradation
17 limit) at 27 receivers (R-2, R-3, R-5, R-9, R-10, R-15 through R-17, R-24, R-68, R-69, R-72,
18 R-73, R-75, R-76, R-81 through R-87, R-95, R-96, R-133 and R-136). If an expanded HWPf
19 were built according to the 3.0-MW turbine layout, operation of the facility could exceed the
20 ambient degradation limit at 30 receivers (R-2, R-3, R-5, R-9 through R-17, R-24, R-68, R-
21 69, R-72, R-73, R-75, R-76, R-81 through R-87, R-96, R-133 and R-136). OAR 340-035-
22 0035(1)(b)(B)(iii)(III) relieves the applicant from having to show compliance with the
23 ambient degradation test “if the person who owns the noise sensitive property executes a
24 legally effective easement or real covenant that benefits the property on which the wind
25 energy facility is located” (a “noise waiver”). If the property owner declines to grant a noise
26 waiver, then the ambient degradation test controls the facility’s maximum permissible noise
27 impact at the residence.

28 Based on this analysis, the ambient noise degradation limit would be exceeded at each
29 of the properties where the predicted noise level exceeds 36 dBA. The certificate holder must
30 either alter the layout of the turbines in the final layout to reduce noise levels to 36 dBA (or
31 less) at all noise sensitive receivers or obtain noise waivers from the owners of those
32 properties where the noise levels would rise above the 36-dBA limit.²⁷⁴ The proposed
33 expanded HWPf facility would comply with the applicable noise regulations if it were
34 constructed according to the layouts presented in the amendment request (using the same

²⁷² A measurement of noise in excess of 50 dBA at the receiver *could* indicate that a violation of the regulation had occurred. In such an instance, to determine whether one of the energy facilities was out of compliance with the regulation, it might be necessary to temporarily curtail operation of the other facility to perform a measurement of the noise from the facility in question before an accurate assessment could be made of the noise.

²⁷³ If noise waivers were not granted to either facility, then the noise from each facility would not be permitted to increase the ambient background level by more than 10 dBA. Therefore, if both facilities were designed based on the assumed background ambient level of 26 dBA, the noise generated by each facility at the residence would not be permitted to exceed 36 dBA, and the cumulative noise would not exceed 39 dBA.

²⁷⁴ The certificate holder would also have the option to conduct measurements to determine the actual ambient L₁₀ and L₅₀ background levels rather than using an assumed background L₅₀ ambient noise level of 26 dBA.

1 turbine types analyzed above) and if the certificate holder acquired noise waivers from the
2 owners of those properties shown in boldface in Table 7.²⁷⁵

3 Condition 3 requires the certificate holder to operate the facility in accordance with all
4 applicable state laws and administrative rules. Condition 101 ensures that the final design
5 configuration of the facility would comply with the noise control regulations. The condition
6 requires the certificate holder to provide information about the turbines selected and about the
7 final design layout to the Department before beginning construction. The condition requires
8 the certificate holder to provide a noise analysis based on that final design and to demonstrate
9 to the satisfaction of the Department that the facility would comply with the applicable noise
10 control regulations. Consistent with the Council’s discussion on May 18, 2011, the Council
11 clarifies Condition 101 by specifying that conservative assumptions must be used in the noise
12 modeling. In particular, the analysis should add the uncertainty of the reference sound level
13 data provided by the turbine manufacturer to the stated sound level data. In predicting sound
14 levels, the analysis should assume that all wind turbines could contribute to the predicted
15 noise level at a receiver even though there are instances where some turbines, due to the fact
16 that they are located downwind of the receiver, would contribute less sound to the receiver
17 than is predicted. The analysis should assume atmospheric conditions in the calculations that
18 will result in the highest sound propagation between the source and the receiver, and the
19 analysis should minimize the amount of ground attenuation that might be found between the
20 source and the receiver. In general, the noise modeling should use parameters that provide
21 assurance that the actual noise levels from the facility when it is operational will not exceed
22 the noise levels predicted through modeling.

23 The Council has the authority to act in the place of the DEQ to enforce OAR 340-035-
24 0035(4)(a) and require the owner of an operating noise source to monitor and record the
25 statistical noise levels upon written notification.²⁷⁶ Condition 102 requires the certificate
26 holder to notify the Department of any complaints received about noise from the facility as
27 well as the actions taken to address them. In the event of a complaint regarding noise levels
28 during operation of HWPF, the Council may require the certificate holder to verify that the
29 facility is operating in compliance with the noise control regulations.

Conclusions of Law

30 For the reasons discussed above and subject to the site certificate conditions described
31 herein, the Council concludes that the HWPF would comply with the applicable noise control
32 regulations in OAR 340-035-0035 if Amendment #1 were approved.

(b) Removal-Fill Law

33 The Oregon Removal-Fill Law (ORS 196.795 through 196.990) and regulations (OAR
34 141-085-0500 through 141-085-0785) adopted by DSL require a permit if 50 cubic yards or
35 more of material is removed, filled or altered within any “waters of the state” at the proposed
36 site.²⁷⁷ The Council must determine whether a permit is needed and should be issued. The
37 U.S. Army Corps of Engineers administers Section 404 of the Clean Water Act, which

²⁷⁵ The facility must comply with the applicable noise limits at all noise sensitive receivers, including any receivers that are omitted from the maps and tables submitted by the applicants.

²⁷⁶ *Final Order on the Application*, pp. 132-133.

²⁷⁷ ORS 196.800(14) defines “Waters of this state.” The term includes wetlands and certain other water bodies.

1 regulates the discharge of fill into waters of the United States (including wetlands), and
2 Section 10 of the Rivers and Harbors Appropriation Act of 1899, which regulates placement
3 of fill in navigable waters. Federal law may require a Nationwide or Individual fill permit for
4 the proposed facility if waters of the United States are affected. A single application form
5 (Joint Permit Application) is used to apply for both the state and federal permits.

Findings of Fact

6 In the *Final Order on the Application*, the Council found that construction of the
7 previously-approved components of the HWPF would result in removal or fill of less than 50
8 cubic yards of material from state-jurisdictional waters and concluded that the facility would
9 not need a Removal/Fill Permit.²⁷⁸

10 The applicants engaged CH2M HILL to perform a field investigation of the proposed
11 expansion area. CH2M HILL conducted a wetlands and waters delineation in June 2010 and
12 submitted an addendum report.²⁷⁹ No wetlands were identified within the expansion area.
13 CH2M HILL identified nine stream channels but characterized only two stream channels as
14 potentially subject to state jurisdiction under the Removal/Fill Law (Vansycle Canyon and
15 Juniper Canyon Road Unnamed Drainage). CH2M HILL characterized the other seven
16 drainages as ephemeral and not food-producing areas for food or game fish and therefore
17 potentially exempt from state jurisdiction. CH2M HILL's determinations of potential state
18 jurisdiction for delineated wetlands and other waters are preliminary until they are confirmed
19 by DSL. DSL has previously concurred that the Juniper Canyon Road Unnamed Drainage is
20 subject to state jurisdiction.²⁸⁰

21 The applicants submitted the CH2M HILL expansion area delineation report to DSL
22 on August 12, 2010.²⁸¹ DSL responded with requests for technical corrections and
23 clarifications, and the applicants answered those requests in October.²⁸² DSL reviewed the
24 report and concurred in finding that Vansycle Canyon and the Juniper Canyon Road Unnamed
25 Drainage (drainage S06) are the only waterways that are subject to the permit requirements of
26 the state Removal/Fill Law.²⁸³ DSL recommended that the certificate holder work with DSL
27 staff on site design to avoid and minimize impacts to wetlands.

28 The applicants state that construction of the proposed HWPF expansion would not
29 affect Vansycle Canyon or the Juniper Canyon Road Unnamed Drainage.²⁸⁴ Because no
30 additional removal or fill is proposed in state-jurisdictional waters, the Council finds that a
31 Removal-Fill Permit is not required for the expanded HWPF.

32 Condition 80 requires pre-construction investigations of any areas that would be
33 disturbed by construction that lie outside previously-surveyed areas to determine whether any
34 jurisdictional waters of the state exist in those locations. The applicants propose a
35 modification of Condition 80 to include a reference to the wetlands and waters delineation

²⁷⁸ *Final Order on the Application*, pp. 133-135.

²⁷⁹ *Addendum to Helix Wind Power Facility Wetlands and Waters Delineation Report, Umatilla County, Oregon*, August 10, 2010, Request for Amendment #1, Attachment 13.

²⁸⁰ *Final Order on the Application*, p. 134.

²⁸¹ Response to RAI J1, Certificate Holder Responses (November 2, 2010).

²⁸² Email from Claudia Steinkoenig. CH2M HILL, October 27, 2010.

²⁸³ Letter from Lynne McAllister, DSL, December 13, 2010.

²⁸⁴ Request for Amendment #1, Section 4, p. 51.

1 surveys conducted in 2010, and the Council adopts the modification, as discussed below in
2 Revision 22 at page 120.

3 Condition 81 requires the certificate holder to construct stream crossings substantially
4 as described in the *Final Order on the Application* and limits the removal and fill of material
5 from waters of the state to 50 cubic yards. The applicants propose adding a reference to the
6 *Final Order on Amendment #1*, but because the amendment request does not describe any
7 proposed stream crossings, the Council makes no change to Condition 81.

Conclusions of Law

8 For the reasons discussed above, the Council concludes that a Removal/Fill Permit
9 would not be needed for the HWPF if Amendment #1 were approved.

(c) Ground Water Act

10 Under ORS Chapters 537 and 540 and OAR Chapter 690, OWRD administers water
11 rights for appropriation and use of the water resources of the state. Under OAR 345-022-
12 0000(1), the Council must determine whether the proposed HWPF complies with these
13 statutes and administrative rules.

Findings of Fact

14 In the *Final Order on the Application*, the Council found that the certificate holder
15 would need up to 10.6 million gallons of water would be needed for dust control, road and
16 earthwork compaction and concrete mixing during the construction of the HWPF.²⁸⁵ The
17 Council found that the certificate holder could obtain water for construction from the City of
18 Helix under an existing municipal water right. As an alternative, the certificate holder could
19 obtain water from a private well under a limited license issued to the construction contractor.

20 In the amendment request, the applicants estimate that up to 10.7 million additional
21 gallons of water for construction of the proposed additional components. The applicants
22 propose to obtain this additional water from the City of Helix (a total of up to 21.3 million
23 gallons of water for the entire expanded facility).²⁸⁶ As an alternative, the construction
24 contractor might supply the additional water from landowners' private wells under new
25 limited licenses issued by OWRD. A construction contractor with wind energy facility
26 experience has evaluated several potential water sources and has determined that at least one
27 source has a well with sufficient flow rate to supply the water that would be needed for
28 construction of the HWPF expansion.²⁸⁷

29 In the *Final Order on the Application*, the Council found that, during facility
30 operation, water would be used for domestic and incidental purposes at the O&M building
31 and for washdown of equipment. In the amendment request, the applicants state that approval
32 of the amendment would result in a "small increase" in water use during facility operation.²⁸⁸
33 Water would be supplied from the on-site well at the previously-approved O&M building or
34 from a new on-site well at the proposed optional second O&M building. In Revision 23, a

²⁸⁵ *Final Order on the Application*, p. 135.

²⁸⁶ Request for Amendment #1, Section 4, p. 42.

²⁸⁷ Email from Chase Whitney, December 7, 2010.

²⁸⁸ Request for Amendment #1, Section 4, p. 42.

1 modification of Condition 83 requires that less than 5,000 gallons of water per day would be
2 taken from all on-site wells for operational uses. In addition, Condition 84 would allow blade-
3 washing, subject to the restrictions recommended by DEQ.²⁸⁹

4 The Council finds that the certificate holder would not need to obtain any new water
5 rights for the facility as a result of the changes requested by this amendment.

Conclusions of Law

6 Based on the findings discussed above and the site certificate conditions described
7 herein, the Council concludes that the HWPF would comply with the Ground Water Act of
8 1955 and the applicable OWRD rules if Amendment #1 were approved.

(d) Public Health and Safety

9 Under ORS 469.310, the Council is charged with ensuring that the “siting,
10 construction and operation of energy facilities shall be accomplished in a manner consistent
11 with protection of the public health and safety...” State law further provides that “the site
12 certificate shall contain conditions for the protection of the public health and safety...” ORS
13 469.401(2).

Findings of Fact

14 We discuss the Council’s Public Health and Safety Standards for Wind Energy
15 Facilities above at page 80. In this section, we discuss the issues of fire protection, magnetic
16 fields and coordination with the Oregon Public Utility Commission (PUC).

A. Fire Protection

17 In the *Final Order on the Application*, the Council made findings and adopted
18 Conditions 57, 58, 59, 60, 61, 62, and 63 regarding fire prevention and emergency response
19 for the HWPF. The Council’s previous findings are incorporated herein by reference.²⁹⁰ The
20 proposed amendment would enlarge the HWPF site to accommodate additional wind turbines
21 and other facility components. The changes requested by the amendment would not result in
22 new fire risks that would be different from the types of risk already considered by the
23 Council. The Council finds that no new fire protection conditions are needed.

24 Public comments on the Department’s proposed order expressed concerns about the
25 fire response plan required under Condition 60. Consistent with the Council’s discussion on
26 May 18, 2011, the Council clarifies the requirements of Condition 60.

27 **Condition 60 :** During construction and operation of the facility, the certificate holder shall
28 develop and implement fire safety plans in consultation with the Milton-Freewater Rural Fire
29 Department to minimize the risk of fire and to respond appropriately to any fires that occur on
30 the facility site. In developing the fire safety plans, the certificate holder shall take into
31 account the dry nature of the region and shall address risks on a seasonal basis. The certificate
32 holder shall meet annually with local fire protection agency personnel to discuss emergency
33 planning and shall invite local fire protection agency personnel to observe any emergency drill
34 or tower rescue training conducted at the facility.

²⁸⁹ *Final Order on the Application*, p. 136.

²⁹⁰ *Final Order on the Application*, pp. 136-137.

1 Without limiting the scope of this condition, the Council finds that this condition
2 requires the certificate holder to consult not only with the Milton-Freewater Rural Fire
3 Department but also with fire protection agency personnel at all fire departments in the
4 vicinity of the HWPF that potentially could respond to any fires that occur on the site and to
5 develop a plan for coordinated response. Before construction begins, the certificate holder
6 shall conduct a fire risk assessment of the site and develop a specific fire response plan, taking
7 into account the final design and layout of the facility, the locations and size of turbines, the
8 locations of access roads and O&M buildings, and an assessment of the level of staffing and
9 the abilities and training needs of on-site personnel. Because the on-site personnel will be in
10 the best position to respond rapidly to any fire that occurs on the site, they should be trained
11 and equipped to respond even before local fire departments can reach the fire location. The
12 certificate holder shall modify the plan appropriately during the transition from facility
13 construction to facility operation. The plan should address the need for training on an ongoing
14 basis. The plan should address what equipment and fire suppression water supplies should be
15 on site and in what locations. Emergency planning shall be updated on an annual basis
16 through meetings with local fire protection personnel.

17 The certificate holder must demonstrate compliance with Condition 60 before
18 beginning construction of the facility and must continue to comply with the condition
19 throughout the life of the facility until the facility site is restored and the site certificate is
20 terminated. That is, before construction begins, the certificate holder should develop a
21 comprehensive fire plan and submit the plan for review by ODOE. Before operation begins,
22 the certificate holder should revise the plan, making changes appropriate to facility operation,
23 and the certificate holder should revise and update the plan as needed based on changed
24 circumstances or comments from ODOE. The certificate holder should submit all revisions of
25 the plan to ODOE for review.

B. Magnetic Fields

26 Electric transmission lines create both electric and magnetic fields. The electric fields
27 associated with the proposed expanded HWPF are addressed above at page 85. In the *Final*
28 *Order on the Application*, the Council made findings regarding the magnetic fields that could
29 be produced by the transmission line configurations proposed in the application. Those
30 findings, incorporated herein by reference, include references to scientific literature on the
31 potential health effects from exposure to magnetic fields.²⁹¹ The Council adopted Conditions
32 85 and 86, which address reasonable steps to reduce or manage human exposure to
33 electromagnetic fields from transmission lines.

34 In the amendment request, the applicants requested the option to construct a portion of
35 the 34.5-kV collection system using two parallel, double-circuit, aboveground 34.5-kV
36 collector lines, a configuration not evaluated in the *Final Order on the Application*. Using the
37 Electric Power Research Institute's ENVIRO program, the applicants calculated the
38 maximum magnetic field likely to be generated by two parallel double-circuit collector lines.
39 Assuming a peak line loading of 418 amperes per phase and a minimum ground clearance of
40 25 feet, the applicants estimated the maximum magnetic field strength would be 25.10

²⁹¹ *Final Order on the Application*, pp. 137-138.

1 milligauss (diminishing to 0.28 mG at 200 feet from centerline).²⁹² There are no residences
2 within 200 feet of the proposed aboveground collector lines.²⁹³

3 The Council has not found sufficient information upon which to set health-based
4 limits for exposure to magnetic fields.²⁹⁴ Nevertheless, the Council has encouraged applicants
5 to implement low-cost measures to reduce or manage public exposure to magnetic fields from
6 transmission lines under the Council’s jurisdiction. Condition 86 requires the certificate
7 holder to take reasonable steps to reduce or manage human exposure to electromagnetic
8 fields, including the specific measures listed in the condition.

C. Coordination with the PUC

9 The PUC Safety and Reliability Section has requested that the Council ensure that
10 certificate holders coordinate with PUC staff on the design and specifications of electrical
11 transmission lines. Under ORS 757.035, the PUC administers power line safety rules
12 contained in OAR Chapter 860, Division 24. Condition 87 requires the certificate holder to
13 coordinate the design of 230-kV and 34.5-kV transmission lines with the PUC.

Conclusions of Law

14 Based on the findings discussed above and subject to the site certificate conditions
15 discussed herein, the Council concludes that the HWPF would comply with requirements to
16 protect public health and safety if Amendment #1 were approved.

2. Requirements That Are Not Under Council Jurisdiction

(a) Federally-Delegated Programs

17 Under ORS 469.503(3), the Council does not have jurisdiction for determining
18 compliance with statutes and rules for which the federal government has delegated the
19 decision on compliance to a state agency other than the Council. Nevertheless, the Council
20 may rely on the determinations of compliance and the conditions in the federally-delegated
21 permits issued by these state agencies in deciding whether the proposed facility meets other
22 standards and requirements under its jurisdiction.

(b) Requirements That Do Not Relate to Siting

23 Under ORS 469.401(4), the Council does not have authority to preempt the
24 jurisdiction of any state agency or local government over matters that are not included in and
25 governed by the site certificate or amended site certificate. Such matters include
26 design-specific construction or operating standards and practices that do not relate to siting.
27 Nevertheless, the Council may rely on the determinations of compliance and the conditions in
28 the permits issued by these state agencies and local governments in deciding whether the
29 facility meets other standards and requirements under its jurisdiction.

²⁹² Request for Amendment #1, Attachment 11, Appendix. The calculated magnetic field strengths are shown in the “Magnetic Field Profile” table as the “RMS resultant” values.

²⁹³ Request for Amendment #1, Attachment 11, p. 6.

²⁹⁴ A recent review of the scientific literature confirmed the Council’s earlier findings (Golder Associates, *EMF Report*, November 23, 2009).

VI. GENERAL APPLICATION OF CONDITIONS

1 The conditions referenced in this order include conditions that are specifically required
2 by OAR 345-027-0020 (Mandatory Conditions in Site Certificates), OAR 345-027-0023 (Site
3 Specific Conditions), OAR 345-027-0028 (Monitoring Conditions) or OAR Chapter 345,
4 Division 26 (Construction and Operation Rules for Facilities). The conditions referenced in
5 this order include conditions based on representations in the request for amendment and the
6 supporting record. The Council deems these representations to be binding commitments made
7 by the certificate holder. This order also includes conditions that the Council finds necessary
8 to ensure compliance with the siting standards of OAR Chapter 345, Divisions 22 and 24, or
9 to protect public health and safety.

10 In addition to all other conditions referenced or included in this order, the site
11 certificate holder is subject to all conditions and requirements contained in the rules of the
12 Council and in local ordinances and state law in effect on the date the amended site certificate
13 is executed.²⁹⁵ Under ORS 469.401(2), upon a clear showing of a significant threat to the
14 public health, safety or the environment that requires application of later-adopted laws or
15 rules, the Council may require compliance with such later-adopted laws or rules.

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

VII. GENERAL CONCLUSION

20 The proposed amendment would expand the facility site to allow a larger micrositing
21 area for wind turbines and other components. The amendment would increase the maximum
22 number of turbines at the facility to 134 and would increase the facility's maximum peak
23 generating capacity to 201 MW. The amendment would transfer the site certificate from IBR
24 to its subsidiary, Helix Wind Power Facility LLC. The Council adopts revisions to the site
25 certificate as described in the section that follows.

26 Based on the findings and conclusions discussed above regarding the proposed
27 amendment, the Council makes the following findings:

- 28 1. The transferee, Helix Wind Power Facility LLC, complies with the standards
29 described in OAR 345-022-0010 and OAR 345-022-0050 and, upon completion of
30 the transfer of HWPF assets from IBR, will be lawfully entitled to possession or
31 control of the Helix Wind Power Facility as described in the site certificate as
32 amended by this order.
- 33 2. The proposed Amendment #1 complies with the requirements of the Oregon
34 Energy Facility Siting statutes, ORS 469.300 to ORS 469.570 and 469.590 to
35 469.619.
- 36 3. The proposed Amendment #1 complies with the applicable standards adopted by
37 the Council pursuant to ORS 469.501.

²⁹⁵ With regard to land use, the applicable local criteria are those in effect on the date the applicants submitted the request for amendment.

1 4. The proposed Amendment #1 complies with all other Oregon statutes and
2 administrative rules applicable to the amendment of the site certificate that are
3 within the Council's jurisdiction.

4 Accordingly, the Council finds that the facility complies with the General Standard of
5 Review (OAR 345-022-0000). The Council concludes, based on a preponderance of the
6 evidence in the record, that the site certificate may be amended as requested by the certificate
7 holder, subject to the revisions recommended by the Department and set forth below.

1. The Department's Recommended Revisions

8 New text proposed by the Department is shown with a single underline. New text
9 proposed by the certificate holder with concurrence by the Department is shown with a double
10 underline. Deletions are shown with a strikethrough. Text proposed by the certificate holder
11 but not recommended by the Department is not shown.²⁹⁶ The parenthetical references in
12 square brackets follow standard practice and provide a historical reference of when changes
13 were made to the site certificate. Page references are to the *Site Certificate for the Helix Wind*
14 *Power Facility* (July 31, 2009).

Revision 1

15 *Page 1, lines 1-5:*

16 The Oregon Energy Facility Siting Council (Council) issues this site certificate for the Helix
17 Wind Power Facility (the facility) in the manner authorized under ORS Chapter 469. This site
18 certificate is a binding agreement between the State of Oregon (State), acting through the
19 Council, and ~~Iberdrola Renewables, Inc.~~ Helix Wind Power Facility LLC (certificate holder)
20 authorizing the certificate holder to construct and operate the facility in Umatilla County,
21 Oregon. [Amendment #1]

Revision 1 Explanation

22 This revision identifies the new certificate holder.

Revision 2

23 *Page 1, lines 6-11:*

24 The findings of fact, reasoning and conclusions of law underlying the terms and conditions of
25 this site certificate are set forth in the following documents, incorporated herein by this
26 reference: (a) the ~~Council's Final Order on the Application~~ for the facility issued on July 31,
27 2009, and ~~incorporated herein by this reference~~(b) the Final Order on Amendment #1. In
28 interpreting this site certificate, any ambiguity will be clarified by reference to the following,
29 in order of priority: (1) this ~~Site Certificate~~First Amended Site Certificate, (2) the Final Order
30 on Amendment #1, (23) the Final Order on the Application and (34) the record of the
31 proceedings that led to the Final Order on the Application and the Final Order on Amendment
32 #1. [Amendment #1]

²⁹⁶ The certificate holder proposed changes to the site certificate as shown in a red-line markup of the site certificate (Request for Amendment #1, Attachment 3).

Revision 2 Explanation

1 This revision adds a reference in the site certificate to the findings of fact, reasoning
2 and conclusions in support of the present amendment. The revision establishes the order of
3 priority in which the underlying documents should be considered in resolving any ambiguity.

Revision 3

4 *Page 1, lines 22-28:*

5 3. This site certificate does not address, and is not binding with respect to, matters that were
6 not addressed in the Council's ~~Final Order on the Application~~ Final Orders on the
7 Application and Amendment #1 for the facility. Such matters include, but are not limited
8 to: building code compliance, wage, hour and other labor regulations, local government
9 fees and charges and other design or operational issues that do not relate to siting the
10 facility (ORS 469.401(4)) and permits issued under statutes and rules for which the
11 decision on compliance has been delegated by the federal government to a state agency
12 other than the Council. 469.503(3). [Amendment #1]

Revision 3 Explanation

13 This revision adds the matters addressed in the *Final Order on Amendment #1* to the
14 scope of matters addressed in the site certificate.

Revision 4

15 *Page 2, lines 20-23:*

16 The energy facility is an electric power generating facility with an average electric generating
17 capacity of up to ~~3467~~ megawatts and a peak generating capacity of not more than ~~402201~~
18 megawatts that produces power from wind energy. The facility consists of not more than
19 ~~60134~~ wind turbines. The energy facility is described further in the *Final Order on the*
20 Application Final Orders on the Application and Amendment #1. [Amendment #1]

Revision 4 Explanation

21 This revision increases the maximum number of wind turbines and the maximum
22 generating capacity of the facility. The revision adds a cross-reference to the description of
23 the facility in the present order.

Revision 5

24 *Page 2, lines 24-34:*

25 The facility includes the following related or supporting facilities described below and in
26 greater detail in the *Final Order on the Application* Final Orders on the Application and
27 Amendment #1:

- 28 · Power collection system
- 29 · Control system
- 30 · Collector substations
- 31 · 230-kV transmission line
- 32 · Meteorological (met) towers
- 33 · Operations and maintenance (O&M) facilities
- 34 · Access roads
- 35 · Transporter route roadway modifications

1 · Additional construction areas (including crane paths, ~~gravel quarries and batch plant~~)

2 [Amendment #1]

3 Revision 5 Explanation

4 The revision adds a cross-reference to descriptions of the related or supporting
5 facilities in the present order. The revision includes the option to construct more than one
6 substation and more than one O&M facility. The construction contractor would be responsible
7 for obtaining all necessary permits for on-site quarries and the batch plant, if any are
8 developed during construction (*Final Order on the Application*, pp. 15-16). The site
9 certificate does not authorize construction of these facilities, which must be separately
10 permitted by the local government or applicable agencies.

11 Revision 6

12 *Page 3, lines 7-10:*

13 A fiber optic communications network links the control panels within each wind turbine to a
14 host computer at the O&M facilityies. The Supervisory, Control and Data Acquisition
15 (SCADA) system at the O&M facilityies collects operating and performance data from the
16 facility's turbines and met towers. SCADA communication lines would be installed mostly
17 underground. [Amendment #1]

18 Revision 6 Explanation

19 This revision includes the option to connect the SCADA system to more than one
20 O&M facility.

21 Revision 7

22 *Page 3, lines 11-19:*

23 Substations and 230-kV Transmission Lines

24 The power collection system would link each turbine to the proposed Helix Substation. The
25 substation transformer would convert the 34.5-kV power from the collection system to 230-
26 kV. An aboveground, single-circuit 230-kV transmission line up to 15 miles in length would
27 connect the Helix Substation to an interconnection station. The 230-kV line would be
28 supported by H-frame structures with two galvanized steel or wood poles or by galvanized
29 steel or wood monopole structures. The power generated by the facility would connect to the
30 regional transmission grid through either the existing 230-kV transmission line owned by
31 PacifiCorp or the existing 500-kV transmission line owned by the Bonneville Power
32 Administration (BPA).

33 The facility may include a second substation located within the area added to the facility by
34 Amendment #1 adjacent to North Juniper Canyon Road. If the second substation is built, it
35 would be connected to the Helix Substation by a new segment of 230-kV transmission line.
36 [Amendment #1]

37 Revision 7 Explanation

38 This revision includes the option to construct a second substation and a connector line
39 between the substations. The connector line would be a single-circuit 230-kV transmission
40 line.

Revision 8

1 *Page 3, line 21:*

2 The facility includes up to ~~two~~four permanent meteorological (met) towers. [Amendment #1]

Revision 8 Explanation

3 This revision increases the maximum number of met towers to four.

Revision 9

4 *Page 3, lines 22-26:*

5 O&M Facility~~ies~~

6 The certificate holder may construct one or two Operations and Maintenance (O&M)
7 facility~~ies~~. Each O&M facility occupies a 3-acre site, including a fenced and graveled area for
8 parking and storage. ~~Including fenced areas, the field workshop in the northern project area~~
9 ~~occupies about 1.6 acres, and the field workshop in the southern project area occupies about~~
10 ~~1.4 acres.~~ [Amendment #1]

Revision 9 Explanation

11 This revision includes the option to construct two O&M facilities. Deleted text is not
12 relevant to the HWPF and was included in the site certificate in error.

Revision 10

13 *Page 3, lines 28-29:*

14 The facility includes up to ~~16.2~~17.4 miles of new roads that provide access to the turbine
15 strings. The access roads connect to graveled turbine turnouts at the base of each turbine.
16 [Amendment #1]

Revision 10 Explanation

17 This revision increases the maximum combined length of new access roads.

Revision 11

18 *Page 3, lines 35-41:*

19 During construction, a ~~57~~-acre staging/laydown areas may be located adjacent to ~~the each~~ O&M
20 facility site ~~or~~. ~~These two laydown areas may be constructed in an alternate locations, and~~
21 ~~s~~Separate 2-acre staging/laydown areas may be located near each turbine string. The temporary
22 staging/laydown areas are used to stage construction and store supplies and equipment. The
23 facility includes construction crane paths to move construction cranes between turbine strings.
24 ~~The certificate holder may obtain gravel and concrete during construction from up to two new~~
25 ~~gravel quarries and an on-site concrete batch plant. The batch plant would occupy up to 3~~
26 ~~acres; each gravel quarry would occupy up to 5 acres.~~ [Amendment #1]

Revision 11 Explanation

27 This revision includes the option to construct two O&M facilities, each having an
28 associated 5-acre temporary laydown area. The applicants proposed using the term “laydown”
29 to describe these areas, and the Department does not object to the change. The deleted text is
30 consistent with the discussion at pages 15-16 of the *Final Order on the Application*. The
31 construction contractor would be responsible for obtaining all necessary permits for the on-

1 site quarries and the batch plant, if any are developed during construction. The site certificate
2 does not authorize construction of these facilities, which must be separately permitted by the
3 local government or applicable agencies.

Revision 12

4 *Page 4, lines 1-3:*

5 The facility is located in Umatilla County approximately 92 miles northwest of Helix, Oregon,
6 in Townships 5 and 6 North and Ranges 31, 32 and 33 East. The facility is located entirely on
7 private land subject to long-term wind energy leases. [Amendment #1]

Revision 12 Explanation

8 This revision modifies the distance of the facility from the City of Helix.

Revision 13

9 *Page 10, lines 1-14:*

10 24 The certificate holder shall begin construction of the facility ~~within three years after the~~
11 ~~effective date of the site certificate~~ by August 5, 2012. Under OAR 345-015-0085(9), a
12 site certificate is effective upon execution by the Council Chair and the applicant. The
13 Council may grant an extension of the deadline to begin construction in accordance with
14 OAR 345-027-0030 or any successor rule in effect at the time the request for extension
15 is submitted. [Amendment #1]

16 25 The certificate holder shall complete construction of the facility ~~within six years after the~~
17 ~~effective date of the site certificate~~ by August 5, 2015. Construction is complete when: 1)
18 the facility is substantially complete as defined by the certificate holder's construction
19 contract documents, 2) acceptance testing has been satisfactorily completed and 3) the
20 energy facility is ready to begin continuous operation consistent with the site certificate.
21 The certificate holder shall promptly notify the Department of the date of completion of
22 construction. The Council may grant an extension of the deadline for completing
23 construction in accordance with OAR 345-027-0030 or any successor rule in effect at
24 the time the request for extension is submitted. [Amendment #1]

Revision 13 Explanation

25 The effective date of the original site certificate was August 5, 2009. These revisions
26 modify Conditions 24 and 25 to specify a date certain as the deadline for beginning
27 construction and a date certain for completing construction. The revisions do not change the
28 deadlines previously adopted by the Council.

Revision 14

29 *Page 10, lines 15-31:*

30 26 The certificate holder shall construct a facility substantially as described in the site
31 certificate and may select turbines of any type, subject to the following restrictions and
32 compliance with all other site certificate conditions. Before beginning construction, the
33 certificate holder shall provide to the Department a description of the turbine types
34 selected for the facility demonstrating compliance with this condition.

35 (a) The total number of turbines at the facility must not exceed ~~60~~134 turbines.

36 (b) The combined peak generating capacity of the facility must not exceed ~~102~~201
37 megawatts and the peak generating capacity of any individual turbine must not exceed
38 3.0 megawatts.

1 (c) The turbine hub height must not exceed 100 meters and the maximum blade tip
2 height must not exceed 150 meters.

3 (d) The minimum blade tip clearance must be 41 meters above ground.

4 (e) The certificate holder shall request an amendment of the site certificate to
5 increase the combined peak generating capacity of the facility beyond ~~402~~201
6 megawatts, to increase the number of wind turbines to more than ~~60~~134 wind turbines or
7 to install wind turbines with a hub height greater than 100 meters, a blade tip height
8 greater than 150 meters or a blade tip clearance less than 41 meters above ground.

9 [Amendment #1]

Revision 14 Explanation

10 This revision increases the maximum number of wind turbines at the facility to 134
11 and increases the maximum generating capacity of the facility to 201 MW.

Revision 15

12 *Page 11, lines 16-46, and page 12, lines 1-6:*

13 31 Before beginning construction, the certificate holder shall submit to the State of Oregon
14 through the Council a bond or letter of credit in the amount described herein naming the
15 State of Oregon, acting by and through the Council, as beneficiary or payee. The initial
16 bond or letter of credit amount is either \$~~6.119~~14.930 million (in ~~2nd~~1st Quarter ~~2009~~11
17 dollars), to be adjusted to the date of issuance as described in (b), or the amount
18 determined as described in (a). The certificate holder shall adjust the amount of the bond
19 or letter of credit on an annual basis thereafter as described in (b).

20 (a) The certificate holder may adjust the amount of the bond or letter of credit based
21 on the final design configuration of the facility and turbine types selected by applying
22 the unit costs and general costs illustrated in Table ~~21~~ in the *Final Order on ~~the~~*
23 *~~Application~~ Amendment #1* and calculating the financial assurance amount as described
24 in that order, adjusted to the date of issuance as described in (b) and subject to approval
25 by the Department.

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

28 (i) Adjust the Subtotal component of the bond or letter of credit amount
29 (expressed in ~~2nd~~ Quarter ~~2009~~10 dollars) to present value, using the U.S. Gross
30 Domestic Product Implicit Price Deflator, Chain-Weight, as published in the Oregon
31 Department of Administrative Services' "Oregon Economic and Revenue Forecast" or
32 by any successor agency (the "Index") and using the ~~2nd~~ Quarter ~~2009~~10 index value for
33 the base year and the quarterly index value for the date of issuance of the new bond or
34 letter of credit. If at any time the Index is no longer published, the Council shall select a
35 comparable calculation to adjust ~~2nd~~ Quarter ~~2009~~10 dollars to present value.

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

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

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

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

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

3 (e) The certificate holder shall describe the status of the bond or letter of credit in the
4 annual report submitted to the Council under Condition 21.

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

7 [Amendment #1]

Revision 15 Explanation

8 This revision increases the financial assurance amount. The default value for the initial
9 financial assurance amount is the amount of the Department’s estimate described herein
10 beginning at page 25 and shown in Table 1. The certificate holder may adjust the initial
11 financial assurance amount based on the final design configuration of the facility as described
12 in subsection (a) of Condition 31. The certificate holder must adjust the financial assurance
13 amount on an annual basis for the life of the facility as described in subsection (b). In making
14 the adjustment, the “base year” index value is the value for 2nd Quarter 2010, because the unit
15 costs shown in Table 1 are expressed in 2nd Quarter 2010 dollars.

Revision 16

16 *Page 13, lines 12-20:*

17 41 To construct any of the transporter route road modifications as described in the *Final*
18 *Order on the Application* and the Final Order on Amendment #1, the certificate holder
19 must obtain approval from the Umatilla County Public Works Director or the
20 appropriate official of the City of Helix, as applicable, including approval of design
21 specifications and any required building permit. For any modifications that affect private
22 property, the certificate holder must obtain the consent of the landowner and provide the
23 Department with written documentation to verify the landowner’s consent. Upon
24 completion of construction of the facility, the certificate holder shall restore the areas
25 affected by any road modifications to a condition approved by the affected landowner
26 and subject to any requirements of the applicable local government. [Amendment #1]

Revision 16 Explanation

27 This revision adds to the scope of Condition 41 any road modifications described in
28 the *Final Order on Amendment #1* (see page 34).

Revision 17

29 *Page 14, lines 12-15:*

30 48 Before beginning construction, the certificate holder shall label all identified historic,
31 cultural or archaeological resource sites on construction maps and drawings as “no
32 entry” areas, and if construction activities will occur within 200 feet of an identified site,
33 the certificate holder shall flag a ~~50-foot~~30-meter no-entry buffer around the site. The
34 certificate holder may use existing private roads within the buffer areas but may not
35 widen or improve private roads within the buffer areas. The no-entry restriction does not
36 apply to public road rights-of-way within the buffer areas or to operational farmsteads.
37 [Amendment #1]

Revision 17 Explanation

1 This revision modifies Condition 48 to make it identical to Condition 47 of the *Site*
2 *Certificate for the Montague Wind Power Facility* (September 10, 2010).

Revision 18

3 *Page 14, lines 16-26:*

4 49 Before beginning construction, the certificate holder shall provide to the Department a
5 map showing the final design locations of all components of the facility, the areas that
6 would be temporarily disturbed during construction, ~~and~~ the areas that were surveyed in
7 2008 as described in the *Final Order on the Application* and the areas that were
8 surveyed in 2010 as described in the *Final Order on Amendment #1*. The certificate
9 holder shall hire qualified personnel to conduct field investigation of all areas to be
10 disturbed during construction that lie outside the previously-surveyed areas. The
11 certificate holder shall provide a written report of the field investigation to the
12 Department and to the Oregon State Historic Preservation Office (SHPO). If any
13 potentially significant historic, cultural, or archaeological resource sites are found during
14 the field investigation, the certificate holder shall instruct all construction personnel to
15 avoid the identified sites and shall implement appropriate measures to protect the sites,
16 including the measures described in Condition 48. [Amendment #1]

Revision 18 Explanation

17 This revision adds a reference to cultural resource surveys that were conducted in
18 2010 as described herein at page 95.

Revision 19

19 *Page 15, lines 17-23:*

20 56 If a spill or release of hazardous material occurs during construction or operation of the
21 facility, the certificate holder shall notify the Department within 72 hours and shall clean
22 up the spill or release and dispose of any contaminated soil or other materials according
23 to applicable regulations. The certificate holder shall make sure that spill kits containing
24 items such as absorbent pads are located on equipment and at the O&M buildings. The
25 certificate holder shall instruct employees about proper handling, storage and cleanup of
26 hazardous materials. [Amendment #1]

Revision 19 Explanation

27 The certificate holder may construct a second O&M building. This revision requires
28 spill kits to be located at all O&M buildings.

Revision 20

29 *Page 15, lines 34-36:*

30 59 During construction and operation of the facility, the certificate holder shall ensure that
31 the O&M facilities ies and all service vehicles are equipped with shovels and portable fire
32 extinguishers of a 4A50BC or equivalent rating. [Amendment #1]

Revision 20 Explanation

33 The certificate holder may construct a second O&M building. This revision requires
34 all O&M facilities to be equipped with shovels and fire extinguishers.

Revision 21

1 Page 16, lines 39-40:

2 69 To protect the public from electrical hazards, the certificate holder shall enclose the
3 facility substations with appropriate fencing and locked gates. [Amendment #1]

Revision 21 Explanation

4 The certificate holder may construct a second substation. This revision requires
5 fencing around all substations.

Revision 22

6 Page 18, lines 12-22:

7 80 Before beginning construction, the certificate holder shall provide to the Department a
8 map showing the final design locations of all components of the facility and the areas
9 that would be disturbed during construction and showing the wetlands and stream
10 channels previously surveyed by CH2M HILL as described in the *Final Order on the*
11 *Application and the Final Order on Amendment #1*. For areas to be disturbed during
12 construction that lie outside of the previously-surveyed areas, the certificate holder shall
13 hire qualified personnel to conduct a pre-construction investigation to determine whether
14 any jurisdictional waters of the State exist in those locations. The certificate holder shall
15 provide a written report on the pre-construction investigation to the Department and the
16 Department of State Lands for approval before beginning construction. The certificate
17 holder shall ensure that construction and operation of the facility will have no impact on
18 any jurisdictional water identified in the pre-construction investigation. [Amendment #1]

Revision 22 Explanation

19 This revision adds a reference to the survey of waters and wetlands conducted in 2010
20 as described herein at page 105.

Revision 23

21 Page 18, lines 30-35:

22 83 During facility operation, the certificate holder shall obtain water for on-site uses from
23 an on-site well located near the O&M building. If two O&M facilities are built, each
24 facility may have an on-site well. The certificate holder shall construct the on-site wells
25 subject to compliance with the provisions of ORS 537.765 relating to keeping a well log.
26 The certificate holder shall not use more than 5,000 gallons of water per day from ~~the~~all
27 on-site wells. The certificate holder may use other sources of water for on-site uses
28 subject to prior approval by the Department. [Amendment #1]

Revision 23 Explanation

29 The certificate holder may construct a second O&M building. This revision allows for
30 construction of a second well, if two O&M facilities are built. Water use during operation will
31 not exceed 5,000 gallons per day for both O&M buildings.

Revision 24

32 Page 19, lines 7-21:

33 86 The certificate holder shall take reasonable steps to reduce or manage human exposure
34 to electromagnetic fields, including but not limited to:

1 (a) Constructing all aboveground transmission lines at least 200 feet from any
2 residence or other occupied structure, measured from the centerline of the transmission
3 line.

4 (b) Constructing all aboveground 34.5-kV transmission lines with a minimum
5 clearance of 25 feet from the ground.

6 (c) Constructing all aboveground 230-kV transmission lines with a minimum
7 clearance of 30 feet from the ground.

8 (d) Fencing the areas around the facility substations to ensure that substation
9 equipment is not accessible to the public.

10 (e) Providing to landowners a map of underground and overhead transmission lines
11 on their property and advising landowners of possible health risks.

12 (f) Designing and maintaining all transmission lines so that alternating current
13 electric fields do not exceed 9 kV per meter at one meter above the ground surface in
14 areas accessible to the public.

15 [Amendment #1]

Revision 24 Explanation

16 The certificate holder may construct a second substation. This revision requires
17 fencing around all substations.

Revision 25

18 *Page 19, lines 33-39:*

19 90 The certificate holder shall acquire the legal right to create, enhance, maintain and
20 protect a habitat mitigation area as long as the site certificate is in effect by means of an
21 outright purchase, conservation easement or similar conveyance and shall provide a copy
22 of the documentation to the Department. Within the habitat mitigation area, the
23 certificate holder shall improve the habitat quality as described in the *Habitat Mitigation*
24 *Plan* that is incorporated in the *Final Order on ~~the Application~~ Amendment #1* as
25 Attachment C and as amended from time to time. [Amendment #1]

Revision 25 Explanation

26 This revision requires compliance with the revised *Habitat Mitigation Plan* that is
27 incorporated in this order as Attachment C.

Revision 26

28 *Page 20, lines 1-31:*

29 91 The certificate holder may construct turbines and other facility components within the
30 site boundary as described in the *Final Order on ~~the Application~~ Amendment #1*, subject
31 to the following requirements addressing potential habitat impact:

32 (a) The certificate holder shall not construct any facility components within areas of
33 Category 1 habitat and shall avoid temporary disturbance of Category 1 habitat.

34 (b) Before beginning construction, the certificate holder shall provide to the
35 Department a map showing the final design locations of all components of the facility,
36 the areas that would be disturbed during construction, ~~and~~ the areas that were surveyed
37 in 2008 as described in the site certificate application and the areas that were surveyed in
38 2010 as described in the *Final Order on Amendment #1*. The certificate holder shall
39 hire a qualified professional biologist to conduct a pre-construction biological
40 investigation of all areas to be disturbed during construction that lie outside of the areas

1 surveyed in 2008 and 2010. The certificate holder shall provide a written report of the
2 investigation to the Department and to the Oregon Department of Fish and Wildlife
3 (ODFW). Based on consultation with the Department and ODFW, the certificate holder
4 shall implement appropriate measures to avoid impacts to any Category 1 habitat or to
5 any State-listed plant or wildlife species found during the investigation.

6 (c) Before beginning construction, the certificate holder's qualified professional
7 biologist shall survey the edge of the previously-identified Washington ground squirrel
8 colony to ensure that the sensitive use area is correctly marked with exclusion flagging
9 and avoided during construction. The certificate holder shall maintain the exclusion
10 markings until construction has been completed.

11 (d) After the certificate holder has determined the final design route of the 230-kV
12 transmission line, the certificate holder shall hire a qualified professional biologist to
13 conduct a pre-construction raptor nest survey within a half-mile buffer of the final route
14 in all areas that were not previously surveyed in 2008 as described in the site certificate
15 application or in 2010 as described in the *Final Order on Amendment #1*. The purpose
16 of the survey is to identify any sensitive raptor nests near the final transmission line
17 route and to provide baseline information on raptor nest use for analysis as described in
18 the *Wildlife Monitoring and Mitigation Plan* referenced in Condition 88.

19 (e) In the final design layout of the facility, the certificate holder shall locate facility
20 components to avoid or minimize temporary and permanent impacts to high quality
21 native habitat and to retain habitat cover in the general landscape where practicable.

22 [Amendment #1]

Revision 26 Explanation

23 This revision adds references to biological surveys that were conducted in 2010 and
24 that are described in this order.

Revision 27

25 *Page 22, lines 7-19:*

26 97 To reduce the visual impact of the facility, the certificate holder shall:

27 (a) Mount nacelles on smooth, steel structures, painted uniformly in a low-
28 reflectivity, neutral white color.

29 (b) Paint the substation structures in a low-reflectivity neutral color to blend with the
30 surrounding landscape.

31 (c) Not allow any advertising to be used on any part of the facility.

32 (d) Use only those signs required for facility safety, required by law or otherwise
33 required by this site certificate, except that the certificate holder may erect a sign near
34 ~~the~~each O&M building to identify the facility, may paint turbine numbers on each tower
35 and may allow unobtrusive manufacturers' logos on turbine nacelles.

36 (e) Design signs in accordance with Umatilla County design requirements for signs
37 as described in UCDC Sections 152.545 through 152.548.

38 (f) Maintain any signs allowed under this condition in good repair.

39 [Amendment #1]

Revision 27 Explanation

40 This revision allows the certificate holder to locate a sign at each O&M building to
41 identify the facility.

Revision 28

1 *Page 22, lines 20-23:*

2 98 The certificate holder shall design and construct the O&M buildings to be generally
3 consistent with the character of similar buildings used by commercial farmers or
4 ranchers in the area and shall paint the building in a low-reflectivity, neutral color to
5 blend with the surrounding landscape. [Amendment #1]

Revision 28 Explanation

6 The certificate holder may construct a second O&M facility. This revision requires all
7 O&M buildings to meet specified design and construction requirements.

Revision 29

8 *Page 22, lines 24-29:*

9 99 The certificate holder shall not use exterior nighttime lighting except:
10 (a) The minimum turbine tower lighting required or recommended by the Federal
11 Aviation Administration.
12 (b) Safety and security lighting at the O&M facilities and substations, if such
13 lighting is shielded or downward-directed to reduce offsite glare.
14 (c) Minimum lighting necessary for repairs or emergencies.
15 (d) Minimum lighting necessary for construction directed to illuminate the work area
16 and shielded or downward-directed to reduce glare.
17 [Amendment #1]

Revision 29 Explanation

18 This revision modifies Condition 99 to make it nearly identical to Condition 104 of the
19 *Site Certificate for the Montague Wind Power Facility* (September 10, 2010). Subsection (b)
20 applies the lighting restrictions to all O&M facilities and substations that are built at the
21 HWPF and adds a reference to “safety” that was omitted in the Montague site certificate.

Revision 30

22 *Page 23, lines 28-31:*

23 104 During operation, the certificate holder shall discharge sanitary wastewater generated at
24 the O&M building to a licensed on-site septic system in compliance with State and
25 County permit requirements. If two O&M facilities are built, each facility may have an
26 on-site septic system. The certificate holder shall design the septic systems for a
27 discharge capacity of less than 2,500 gallons per day. [Amendment #1]

Revision 30 Explanation

28 The certificate holder may construct a second O&M building. This revision allows for
29 construction of a second septic system, if two O&M facilities are built. Each septic system
30 must have a discharge capacity of less than 2,500 gallons per day.

VIII. ORDERS

1 For the reasons discussed herein at pages 3 through 16, the Council finds that the
2 requests for a contested case proceeding did not identify any issue that justifies such a
3 proceeding. The Council hereby denies all requests for a contested case proceeding.

4 The Council approves Amendment #1 and issues an amended site certificate, subject
5 to the terms and conditions set forth above.

Issued this 24th day of June, 2011.

THE OREGON ENERGY FACILITY SITING COUNCIL

By: _____

W. Bryan Wolfe, Chair
Oregon Energy Facility Siting Council

Attachments

Attachment C: Habitat Mitigation Plan

Attachment D: Amendment Request Comments and Department Responses

Attachment E: Proposed Order Comments and Department Responses

Notice of the Right to Appeal

You have the right to appeal this order to the Oregon Supreme Court pursuant to ORS 469.403. To appeal you must file a petition for judicial review with the Supreme Court within 60 days from the day this order was served on you. If this order was personally delivered to you, the date of service is the date you received this order. If this order was mailed to you, the date of service is the date it was mailed, not the day you received it. If you do not file a petition for judicial review within the 60-day time period, you lose your right to appeal.