

KLONDIKE III WIND PROJECT:
FINAL ORDER ON AMENDMENT #2

TABLE OF CONTENTS

I.	INTRODUCTION.....	1
II.	PROCEDURAL HISTORY AND AMENDMENT PROCESS.....	1
III.	DESCRIPTION OF THE PROPOSED AMENDMENT.....	1
	1. AMENDMENT PROCEDURE	2
	2. AMENDMENTS TO THE SITE CERTIFICATE AS PROPOSED BY KIII	2
	3. DESCRIPTION OF THE FACILITY AS AUTHORIZED BY AMENDMENT #2	3
IV.	THE COUNCIL’S SITING STANDARDS: FINDINGS AND CONCLUSIONS	5
	1. GENERAL STANDARD OF REVIEW	6
	2. STANDARDS ABOUT THE APPLICANT.....	6
	(a) Organizational Expertise	6
	(b) Retirement and Financial Assurance	7
	3. STANDARDS ABOUT IMPACTS OF CONSTRUCTION AND OPERATION	11
	(a) Land Use	11
	(b) Soil Protection.....	16
	(c) Protected Areas	16
	(d) Scenic Resources.....	18
	(e) Recreation.....	20
	(f) Public Health and Safety Standards for Wind Energy Facilities	20
	(g) Siting Standards for Wind Energy Facilities	21
	(h) Siting Standards for Transmission Lines.....	23
	4. STANDARDS TO PROTECT WILDLIFE	23
	(a) Threatened and Endangered Species	23
	(b) Fish and Wildlife Habitat	25
	5. STANDARDS NOT APPLICABLE TO SITE CERTIFICATE ELIGIBILITY	27
	(a) Structural Standard	27
	(b) Historic, Cultural and Archaeological Resources.....	28
	(c) Public Services	29
	(d) Waste Minimization	29
V.	OTHER APPLICABLE REGULATORY REQUIREMENTS: FINDINGS AND CONCLUSIONS	30
	1. REQUIREMENTS UNDER COUNCIL JURISDICTION	30
	(a) Noise Control Regulations	30
	(b) Removal-Fill Law.....	33
	(c) Ground Water Act	34
	(d) Public Health and Safety	34
	2. REQUIREMENTS THAT ARE NOT UNDER COUNCIL JURISDICTION.....	35
	(a) Federally-Delegated Programs	35
	(b) Requirements That Do Not Relate to Siting.....	35
VI.	GENERAL APPLICATION OF CONDITIONS	35
VII.	GENERAL CONCLUSION	36
	1. THE DEPARTMENT’S RECOMMENDED REVISIONS	36
VIII.	ORDER	47

LIST OF TABLES

Table 1: MHI-1 Micrositing Area Coordinates	4
Table 2: Site Restoration Cost Estimate (2006 Dollars)	9
Table 3: Area Occupied by the Power Generation Facility.....	15
Table 4: Maximum Area of Affected Higher-Value Habitat (Worst-Case).....	26

LIST OF ABBREVIATIONS

Council	Energy Facility Siting Council
CRP	Conservation Reserve Program
Department	Oregon Department of Energy
dB(A)	The “A-weighted” sound pressure level. The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighted filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
DEQ	Oregon Department of Environmental Quality
Figure 2	Figure 2, Turbine and Receptor Locations, Request for Amendment #2
kV	kilovolt or kilovolts
LCDC	Land Conservation and Development Commission
PPM	PPM Energy, Inc.
MHI-1	the turbine location within the new micrositing area addressed by Amendment #2
MW	megawatt or megawatts
O&M	Operations and maintenance
ODFW	Oregon Department of Fish and Wildlife
SCCP	Sherman County Comprehensive Plan
SCZO	Sherman County Zoning Ordinance
WRD	Oregon Water Resources Department

**KLONDIKE III WIND PROJECT:
FINAL ORDER ON AMENDMENT #2**

I. INTRODUCTION

1 The Oregon Energy Facility Siting Council (Council) issues this final order in
2 accordance with ORS 469.405 and OAR 345-027-0070. This order addresses a request by the
3 certificate holder for amendment of the site certificate for the Klondike III Wind Project
4 (KWP). The certificate holder is Klondike Wind Power III LLC (KIII).

5 On June 30, 2006, the Council issued a site certificate for the KWP, a wind energy
6 facility with a peak generating capacity of approximately 272 megawatts (MW) to be built in
7 Sherman County, Oregon. On November 3, 2006, the Council approved Site Certificate
8 Amendment #1. The facility is under construction.

9 The definitions in ORS 469.300 and OAR 345-001-0010 apply to terms used in this
10 order, except where otherwise stated or where the context indicates otherwise.

II. PROCEDURAL HISTORY AND AMENDMENT PROCESS

11 On April 12, 2007, KIII submitted to the Oregon Department of Energy (Department)
12 a request to amend the site certificate.¹ On April 25, 2007, the Department notified KIII that
13 the proposed order would be issued no later than June 24, 2007. On April 25, as required
14 under OAR 345-027-0070, the Department instructed the certificate holder to send copies of
15 the request to the appropriate officers, agencies and tribes listed in OAR 345-020-0040. The
16 Department requested agency comments by May 25. Also as required under the rule, the
17 Department sent notice of the amendment request to all persons on the Council's mailing list
18 and to persons on an updated list of property owners supplied by KIII. The Department set a
19 deadline of May 29 for public comments on the amendment request. The Department received
20 no comments from reviewing agencies or from the public about the amendment request.

21 The Department issued a proposed order on June 19, 2007, recommending that the
22 Council approve the amendment request, subject to site certificate revisions. The Department
23 issued notice of the proposed order in accordance with OAR 345-027-0070 specifying a
24 deadline for public comments and requests for a contested case proceeding. No adverse
25 comments or contested case requests were received by the deadline of July 19, 2007.

26 The Council considered the amendment request at a meeting on July 27, 2007, and
27 voted to approve the amendment request subject to the revisions discussed herein.

III. DESCRIPTION OF THE PROPOSED AMENDMENT

28 KIII requests an amendment of the site certificate that, if approved, would authorize
29 approximately 18.5 acres of additional micrositing area. The amendment would authorize the
30 construction of a single wind turbine, an access road and a collector line within this new
31 micrositing area. The amendment would allow the certificate holder to select any turbine type
32 for construction within the new area, subject to the restrictions that the hub height does not
33 exceed 80 meters, the rotor diameter does not exceed 92.5 meters, the peak generating

¹ "Second Request for Amendment to the Klondike III Wind Project," referred to herein as Request for Amendment #2.

1 capacity does not exceed 2.4 megawatts (MW) and the maximum sound power level does not
2 exceed 110 dBA.

1. Amendment Procedure

3 Under OAR 345-027-0050(1), the certificate holder must request a site certificate
4 amendment “to design, construct, operate or retire a facility in a manner different from the
5 description in the site certificate” if the proposed change:

- 6 a) Could result in a significant adverse impact that the Council has not addressed in
7 an earlier order and the impact affects a resource protected by Council standards;
- 8 b) Could impair the certificate holder’s ability to comply with a site certificate
9 condition; or
- 10 c) Could require a new condition or a change to a condition in the site certificate.

11 Construction of a turbine, access road and collector line within a new 18.5-acre
12 micrositing area could have adverse impacts that the Council did not evaluate and address in
13 the Final Order on the Application or the Final Order on Amendment #1. Such impacts could
14 affect the resources protected by standards in Divisions 22 and 24. The proposed amendment
15 would require changes to current site certificate conditions. For these reasons, amendment of
16 the site certificate is needed to allow construction and operation of the KWP as proposed in
17 the amendment request.

18 The proposed amendment would enlarge the site of the KWP facility. For those areas
19 where the site boundary would be enlarged, the Council must consider whether the facility
20 complies with all Council standards (OAR 345-027-0070(10)(a)). For all site certificate
21 amendments, the Council must consider whether the amount of the bond or letter of credit
22 required under OAR 345-022-0050 is adequate (OAR 345-027-0070(10)(d)).

2. Amendments to the Site Certificate as Proposed by KIII

23 In its request for Amendment #2, KIII proposed the following amendments of the
24 language of the site certificate. Proposed additions are double-underlined and proposed
25 deletions have a strikethrough. The Department recommended revisions to the site certificate
26 that incorporate the substance of these amendments but that include additional language
27 consistent with KIII’s request. The Department’s recommended revisions are discussed in
28 Section VII.1.

29 *Page 1, lines 6-13:*

30 The findings of fact, reasoning and conclusions of law underlying the terms and conditions of
31 this site certificate are set forth in the following documents related to the facility, which are
32 incorporated herein by this reference: (a) the Council’s Final Order on the Application and (b)
33 the Council’s Final Order on Amendment #1. In interpreting this site certificate, any
34 ambiguity will be clarified by reference to the following, in order of priority: (1) this Second
35 Amended Site Certificate, (2) the Final Order on Amendment #2, (3) the First Amended Site
36 Certificate, (24) the Final Order on Amendment #1, (~~35~~) the Final Order on the Application
37 and (~~46~~) the record of the proceedings that led to the Final Orders on the Application and
38 Amendment #1. [~~Amendments #1 and #2~~]

1 *Page 1, lines 24-30:*

2 3. This site certificate does not address, and is not binding with respect to, matters that
3 were not addressed in the Council's Final Orders on the Application and Amendments
4 #1 and #2. Such matters include, but are not limited to: building code compliance, wage,
5 hour and other labor regulations, local government fees and charges and other design or
6 operational issues that do not relate to siting the facility (ORS 469.401(4)) and permits
7 issued under statutes and rules for which the decision on compliance has been delegated
8 by the federal government to a state agency other than the Council. 469.503(3).
9 [Amendments #1 and #2]

10 *Page 2, lines 22-29:*

11 The energy facility is an electric power generating plant with an average electric generating
12 capacity of approximately 95 megawatts and a peak generating capacity of not more than 285
13 megawatts that produces power from wind energy. The facility consists of not more than 165
14 wind turbines, each with a peak generating capacity of not more than 2.4 megawatts. Turbines
15 are mounted on tubular steel towers. The turbine towers are about 263 feet tall at the turbine
16 hub and have an overall height of not more than 415 feet including the radius swept by the
17 turbine blades. The energy facility is described further in the Final Order on Amendments #1
18 and #2. [Amendments #1 and #2]

19 *Page 10, lines 17-36:*

20 (28) The certificate holder shall construct a facility that includes up to 165 wind turbines
21 substantially as described in the site certificate, subject to the following restrictions on
22 turbine selection:
23 (a) For any turbine string, the certificate holder may select any combination of GE
24 1.5-megawatt or Vestas V82 1.65-megawatt wind turbines.
25 (b) For turbine strings K, L, M, N, R, S, U, V, W and X as identified in Table 1 of the
26 Final Order on Amendment #1, in addition to the turbine types listed in (a), the certificate
27 holder may select any turbine type such that the hub height does not exceed 80 meters,
28 the rotor diameter does not exceed 92.5 meters, the peak generating capacity does not
29 exceed 2.4 megawatts and the maximum sound power level does not exceed 107 dBA.
30 (c) Notwithstanding the restriction described in (b) and in addition to the turbine
31 types listed in (a), the certificate holder may select any turbine type for both location K-
32 02 and the expanded site boundary addressed in Amendment #2 as shown on Figure B-1
33 as described in the Final Order on Amendment #1², such that the hub height does not
34 exceed 80 meters, the rotor diameter does not exceed 92.5 meters, the peak generating
35 capacity does not exceed 2.4 megawatts and the maximum sound power level does not
36 exceed 110 dBA.
37 [Amendments #1 and #2]

3. Description of the Facility as Authorized by Amendment #2

38 If the Council approves Amendment #2, the certificate holder would be authorized to
39 construct and operate the KWP facility as described in the Final Order on Amendment #1,
40 except as modified by the changes described below.

Turbine Selection

41
42 In the amendment request, KIII has proposed the construction of a single turbine in a
43 new micrositing area south of Gosson Lane. The new micrositing area is identified by a green

1 shaded area on Figure 2 of the Request for Amendment #2.² Table 1 identifies the location of
2 the new micrositing area by the coordinate locations of its corners.

Table 1: MHI-1 Micrositing Area Coordinates

Corner	Longitude	Latitude
NW	-120.596819	45.561556
NE	-120.593313	45.561559
SE	-120.593306	45.559239
SW	-120.596826	45.559267

3 If approved by the Council, the certificate holder would be permitted to construct any
4 turbine type in this area, subject to the restrictions that that the hub height does not exceed 80
5 meters, the rotor diameter does not exceed 92.5 meters, the peak generating capacity does not
6 exceed 2.4 megawatts and the maximum sound power level does not exceed 110 dBA. The
7 turbine location is identified as “MHI-1” by the certificate holder’s engineering and
8 construction team.³

9 The amendment would not increase the maximum number of turbines authorized for
10 construction at the KWP site and would not increase the overall peak generating capacity of
11 the facility. The site certificate authorizes a wind energy facility that includes not more than
12 165 turbines with a maximum combined peak generating capacity of 285 MW.

13 The Department recommended that the Council modify Conditions 28 and 92 to allow
14 the certificate holder to construct a turbine within the new micrositing area subject to the
15 restrictions described above. The revised language for Condition 28 is shown in Revision 20
16 below at page 44, and the revised language for Condition 92 is shown in Revision 23 below at
17 page 46.

18 **Power Collection System**

19 As described in the Final Order on Amendment #1, the power collection system
20 consists of approximately 59 miles of 34.5-kV collector lines. Nearly all of the collector lines
21 would be installed outside of county road right-of way within the leasehold lands of the
22 project. The total length of aboveground segments would not exceed 12 miles. A new
23 segment of underground collector line would serve the new turbine location. The length of
24 this segment would be up to 900 feet, but the certificate holder does not expect that this
25 segment would change the overall collector length of 59 miles for the facility as a whole.⁴

26 **Access Roads**

27 As described in the Final Order on Amendment #1, the certificate holder would
28 construct approximately 22 miles of access roads. A new access road segment would be built
29 from Gosson Lane to the new turbine location. The length of this segment would be up to 900
30 feet, but the certificate holder does not expect that this segment would change the overall
31 access road length of 22 miles for the facility as a whole.⁵

² All references herein to “Figure 2” are to Figure 2 of the Request for Amendment #2.

³ E-mail from Jesse Gronner, May 4, 2007.

⁴ E-mail from Jesse Gronner, May 14, 2007.

⁵ E-mail from Jesse Gronner, May 14, 2007.

1 **Temporary Disturbance Areas**

2 Under the proposed amendment, the total area of potential temporary disturbance
3 during construction would increase by about 2.5 acres. The total area of construction
4 disturbance for the KWP facility would be approximately 226 acres. All of the additional area
5 of temporary disturbance would be located within the new micrositing area shown on Figure 2
6 of the amendment request.

The Site and Site Boundary

7 The “site boundary” is the perimeter of the site of the proposed energy facility, its
8 related or supporting facilities, all temporary laydown and staging areas and all micrositing
9 corridors for turbine strings, roads, collector lines and crane paths. Under the proposed
10 amendment, the area within the site boundary would be increased to include the new
11 micrositing area. As described in the amendment request, the new micrositing area is a 900-
12 foot by 900-foot area (18.5 acres), as shown on Figure 2.

13 The “site” of the KWP is described in the Final Order on Amendment #1. The “site”
14 of a facility is the final footprint area (excluding temporary laydown and staging areas and
15 areas within the micrositing areas not needed for facility operation). Amendment #2 would
16 add a new “turbine site corridor” surrounding the new turbine location. This site corridor
17 would be defined as the area within a radius from the turbine equal to the rotor diameter plus
18 100 feet. In addition, the site would include the area within 30 feet of the centerline of the
19 collector line serving the new turbine location as well as the area within 30 feet of the
20 centerline of the access road serving the new turbine location.

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

21 The Council must decide whether the amendment complies with the facility siting
22 standards adopted by the Council. In addition, the Council must impose conditions for the
23 protection of the public health and safety, for the time of commencement and completion of
24 construction, and to ensure compliance with the standards, statutes and rules addressed in the
25 project order. ORS 469.401(2).

26 The Council is not authorized to determine compliance with regulatory programs that
27 have been delegated to another state agency by the federal government. ORS 469.503(3).
28 Nevertheless, the Council may consider these programs in the context of its own standards to
29 ensure public health and safety, resource efficiency and protection of the environment.

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

33 In making its decision on an amendment of a site certificate, the Council applies the
34 applicable state statutes, administrative rules and local government ordinances that are in
35 effect on the date the Council makes its decision, except when applying the Land Use
36 Standard. In making findings on the Land Use Standard, the Council applies the applicable
37 substantive criteria in effect on the date the certificate holder submitted the request for
38 amendment. OAR 345-027-0070(10).

1. General Standard of Review

OAR 345-022-0000

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

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

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

* * *

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

2. Standards about the Applicant

(a) Organizational Expertise

OAR 345-022-0010

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

(2) The Council may base its findings under section (1) on a rebuttable presumption that an applicant has organizational, managerial and technical

1 expertise, if the applicant has an ISO 9000 or ISO 14000 certified program and
2 proposes to design, construct and operate the facility according to that program.

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

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

Findings of Fact

18 In the Final Order on the Application and the Final Order on Amendment #1, the
19 Council found that KIII has the organizational, managerial and technical expertise to construct
20 and operate the KWP. The proposed enlargement of the facility site and location of a single
21 turbine within the new micro-siting area would not affect the Council's previous finding.

22 The Council finds that PPM continues to have experience in power project
23 engineering, design, development, construction and operation. There has been no other
24 change of circumstances or underlying facts that affects the Council's findings under this
25 standard.

Conclusions of Law

26 Based on the findings stated above, the Council concludes that KIII would meet the
27 Council's Organizational Expertise Standard if Amendment #2 were approved.

(b) Retirement and Financial Assurance

OAR 345-022-0050

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

29
30 (1) The site, taking into account mitigation, can be restored adequately to a useful,
31 non-hazardous condition following permanent cessation of construction or
32 operation of the facility.

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

Findings of Fact

A. Site Restoration

1 The Department analyzed the effect of the proposed changes on the cost of site
2 restoration. Site restoration would be done as described in the Final Order on the Application.
3 The additional area of temporary disturbance (due to removal of the turbine and access road in
4 the new micrositing area) could affect the cost of site restoration. Approval of Amendment #2
5 would not affect the Council's previous finding that the site can be adequately restored to a
6 useful, non-hazardous condition.

B. Estimated Cost of Site Restoration

7 To provide a fund that is adequate for the State of Oregon to pay site restoration costs
8 if the certificate holder fails to perform its obligation to restore the site under Condition 32 of
9 the site certificate, the Council assumes circumstances under which the restoration cost would
10 be greatest.

11 In the Final Order on Amendment #1, the Council found that the value of the financial
12 assurance bond or letter of credit for restoring the site of the proposed KWP would be
13 \$1,089,000 (2005 dollars), subject to the base cost and annual adjustments described above.
14 This finding was based on an estimated gross site restoration cost of \$6,250,163 with an
15 estimated credit for the scrap value of steel and other metals of \$5,418,832.

16 The cost of a performance bond is generally a percentage of the demolition contract
17 amount. Accordingly, the estimated performance bond amount should be based on the gross
18 site restoration cost estimate. The Department believes that 1-percent is a conservative
19 estimate for this bond, although it could be more.

20 The Council recently found that a future developments contingency adder of 10
21 percent would be appropriate for a wind energy facility.⁶ In consideration of the low risk of
22 unanticipated site restoration costs for a wind facility compared to a fossil-fueled power plant,
23 the Council finds that the future developments contingency adder for the KWP can be reduced
24 from 20-percent to 10-percent.

25 In recent site certificate proceedings (including the proceedings on Amendment #1 for
26 the KWP), the Department based its recommendations on the understanding that the State
27 would have an enforceable claim to the scrap value unencumbered by the claims of creditors
28 or other third parties. As a result of concerns expressed by Council members regarding the
29 adequacy of financial assurance, the Department conducted an internal review of the risks
30 involved in allowing a deduction for scrap or salvage value in calculating the financial
31 assurance amount. In a memo dated December 8, 2006, to site certificate holders and
32 applicants, the Department concluded that there is a significant risk that the scrap or salvage
33 value might be inaccessible and unavailable to the State. After internal discussion and a
34 presentation of the issue to the Council, the Department recommended that in pending and
35 future site certificate proceedings, the Council should not include a deduction for scrap or
36 salvage value in calculating the appropriate financial assurance amount.

37 Under the proposed amendment, the maximum number of turbines allowed under the
38 site certificate would not increase. Accordingly, there would be no increase in the turbine

⁶ Final Order on Amendment #2 for the Biglow Canyon Wind Farm.

1 removal components of the overall site restoration costs estimate. If the certificate holder
 2 builds a turbine within the new micrositing area, an access road, junction box and collector
 3 line would be needed to serve that turbine. The collector line would have no effect on the site
 4 restoration cost estimate, because there would be no increase in the expected maximum of 12
 5 miles of aboveground collector line in the project as a whole.⁷ Likewise, the new access road
 6 segment would not increase the overall length of access road area used in the estimate (22
 7 miles).

8 Approval of the amendment request would allow an increase in the amount of
 9 temporary disturbance due to construction of facility components within the new micrositing
 10 area. KIII estimated that the amendment would increase the temporary disturbance area by
 11 approximately 2.5 acres. Accordingly, the Department estimates that site restoration could
 12 temporarily disturb approximately 198.5 acres of land if Amendment #2 were approved.⁸

13 With the changes discussed above and with the adders for the performance bond (1-
 14 percent), administration and project management costs (10-percent) and future developments
 15 contingency (10-percent), the total site restoration cost estimate for the facility with the
 16 changes requested in Amendment #2 is shown in Table 2.

Table 2: Site Restoration Cost Estimate (2006 Dollars)

Cost Estimate Component	Quantity	Unit Cost	Extension
<u>Turbines</u>			
Disconnect electrical and ready for disassembly (per turbine)	165	\$981	\$161,865
Remove turbine blades, hubs and nacelles (per turbine)	165	\$5,207	\$859,155
Remove turbine towers (per net ton of steel)	36,368	\$67.02	\$2,437,383
Remove and load pad transformers (per turbine)	165	\$2,251	\$371,415
Foundation and transformer pad removal, restoration and reseeded (per turbine)	165	\$1,937	\$319,605
<u>Met Towers</u>			
Dismantle and dispose of met towers (per tower)	3	\$7,298	\$21,894
<u>Substation and O&M Building</u>			
Dismantle and dispose of substation	1	\$136,463	\$136,463
Dismantle and dispose of O&M building	1	\$87,573	\$87,573
<u>Transmission Line</u>			
Removal of 34.5 kV aboveground transmission line (per mile)	12	\$3,172	\$38,064
Junction boxes - remove electrical to 4' below grade (each)	10	\$1,322	\$13,220
<u>Access Roads</u>			
Road removal, grading and seeding (per mile)	22	\$46,266	\$1,017,852
<u>Temporary Areas</u>			
Restore area disturbed during restoration work (per acre)	198.5	\$2,775	\$550,838

⁷ Underground collector lines do not add to the site restoration cost estimate because they would be left in place.

⁸ This estimate adds 2.5 acres to the 196 acres of temporary disturbance shown on Table 3 of the Final Order on Amendment #1.

General Costs		
Permits, mobilization, engineering, overhead, utility disconnects		\$440,702
Subtotal		\$6,456,029
Performance Bond	1%	\$64,560
Gross Cost		\$6,520,589
Administration and Project Management	10%	\$652,059
Future Developments Contingency	10%	\$652,059
Total Site Restoration Cost (rounded to nearest \$1,000)		\$7,825,000

C. Adjustment of the Financial Assurance Amount

1 The Council finds that the estimated cost of site restoration for the proposed KWP,
2 with the changes proposed under Amendment #2, would be \$7.825 million (2006 dollars) as
3 shown in Table 2 or a lesser amount based on the final design configuration. In October 2006,
4 the certificate holder provided a letter of credit for \$2.524 million, based on the amount
5 required under Condition 32 of the First Amended Site Certificate, adjusted to 2006 dollars as
6 of the date of issuance. The Council revises Condition 32 to require the certificate holder to
7 submit a new or amended letter of credit in the amount described above within 60 days after
8 the effective date of the Second Amended Site Certificate. The proposed modification of
9 Condition 32 is described in Revision 21 below at page 45.

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

10 In the Final Order on the Site Certificate Application, the Council found that there was
11 a “reasonable likelihood” that the Royal Bank of Scotland would provide an annual letter of
12 credit for the KWP, based on a letter from the bank. The letter indicated that PPM Energy (the
13 parent company of KIII) had sufficient available credit with the bank to support a letter of
14 credit in the amount of \$2.5 million.

15 The certificate holder has provided a letter from the Royal Bank of Scotland that
16 acknowledges the increase in the financial assurance amount.⁹ The letter indicates that there is
17 a “reasonable likelihood” that the bank would increase the amount of the letter of credit to an
18 amount in the range of \$8 million to \$15 million (including annual inflation adjustments). The
19 Council finds that, with the changes that would be allowed under Amendment #2, it is
20 reasonably likely that KIII can obtain a letter of credit in an amount satisfactory to the
21 Council.

Conclusions of Law

22 Based on proposed findings and recommendations stated above, the Council concludes
23 that KIII would meet the Council’s Retirement and Financial Assurance Standard if
24 Amendment #2 were approved.

⁹ Letter from The Royal Bank of Scotland, June 13, 2007.

3. Standards about Impacts of Construction and Operation

(a) Land Use

1 **OAR 345-022-0030**

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

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

6 ***

7 *(b) The applicant elects to obtain a Council determination under ORS*
8 *469.504(1)(b) and the Council determines that:*

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

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

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

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

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

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

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

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

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

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

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

10 * * *

Findings of Fact

11 In the Final Order on the Application, the Council found the proposed KWP would
12 comply with the statewide planning goals based on a land use analysis under ORS
13 469.504(1)(b)(B). The Council found that the facility complied with the applicable
14 substantive criteria identified by the local government, except for two provisions of the
15 Sherman County Zoning Ordinance (SCZO), Sections 3.1.4 and 5.8.16(d).¹⁰

16 The Council then considered whether the facility would comply with the applicable
17 statewide planning goal (Goal 3). The Council found that the facility would not comply with
18 OAR 660-033-0130(22), a Land Conservation and Development Commission (LCDC)
19 administrative rule for implementing the requirements for agricultural land as defined by
20 Goal 3. Under the rule, a “power generation facility” must not preclude more than 20 acres of
21 land from use as a “commercial agricultural enterprise.”

22 Because of the finding that the KWP would not comply with Goal 3, the Council
23 considered whether an exception to the goal was justified. The Council applied the criteria for
24 a “reasons” exception under ORS 469.504(2)(c) and concluded that an exception should be
25 allowed. Based on the exception to Goal 3 and the Council’s other findings, the Council
26 concluded that the KWP would comply with the Land Use Standard.

27 The changes in the facility that would be authorized under the requested amendment
28 would alter design and construction details but would not change the proposed land use. The
29 same land use criteria apply to the amendment as applied to the site certificate application. As
30 discussed below, the land occupied by the facility would increase slightly if Amendment #2
31 were approved, but the changes authorized under the amendment do not substantially alter the
32 underlying facts upon which the Council based its previous findings and conclusions
33 regarding land use.

¹⁰ The Special Advisory Group identified Article 5 of the Sherman County Zoning Ordinance (SCZO) as applicable to the KWP. The Council found that the substantive criteria contained in Article 5 of the SCZO are in Sections 5.2 and 5.8 of the ordinance. The other sections of the article are procedural. Final Order on the Application, p. 22-23. Under SCZO Section 5.2.2, the proposed facility must comply with the requirements of the applicable primary zone and any applicable combining zone. The KWP is located entirely within an Exclusive Farm Use zone, which is designated “F-1” under SCZO Section 3.1. Accordingly, the Council also considered whether the facility would comply with the criteria in SCZO Section 3.1. Final Order on the Application, p. 27. In addition, SCZO Section 5.2.2 requires consideration of other provisions of the SCZO that are determined “applicable to the subject use.” The Council found that SCZO Sections 4.2 and 4.9 were applicable to the proposed use. Final Order on the Application, p. 31.

A. Applicable Substantive Criteria

1 Goal XI

2 On page 25 of the Final Order on the Application, the Council discussed Goal XI of
3 the Sherman County Comprehensive Plan (SCCP):

4 *Goal XI: To maintain all species of fish and wildlife at optimum levels and prevent*
5 *the serious depletion of any indigenous species. [SCCP Section XI]*

6 The Council found the proposed KWP to be compatible with the goal of maintaining
7 fish and wildlife populations, relying in part on an analysis of compliance with the Council's
8 Fish and Wildlife Habitat Standard. The Council found that approximately 87 percent of the
9 land permanently affected and 84 percent of the land temporarily affected by the proposed
10 KWP is cultivated agricultural land that has low potential to become important habitat for
11 wildlife.

12 In the Final Order on Amendment #1, the Council found that, with the changes
13 approved under Amendment #1, approximately 88 percent of the land permanently affected
14 and 90 percent of the land temporarily affected would be cultivated or otherwise developed
15 land. As shown in Table 4 below on page 26, the additional area affected under Amendment
16 #2 would not change these percentages: approximately 88 percent of the permanent impact
17 and 90 percent of the temporary impact would be on cultivated or otherwise developed
18 agricultural land. All of the area within the proposed new micro-siting area is cultivated
19 agricultural land. The increase in the area of permanent impact under the amendment includes
20 no higher-value habitat. The Council finds that the proposed KWP would be compatible with
21 Goal XI of the SCCP if Amendment #2 were approved.

22 SCZO Section 5.8.14(a)

23 SCZO Section 5.8.14(a) requires the location of public facilities to "best serve" the
24 County or area. In addressing this criterion in the Final Order on the application, the Council
25 found that the KWP substations, wind turbines and transmission lines were "public facilities"
26 within the scope of the ordinance. The Council found that to serve their intended purpose, the
27 wind turbines must be located to take optimal advantage of the wind resource for power
28 generation.

29 In the Final Order on Amendment #1, the Council found that the KWP facilities would
30 occupy approximately 0.9 percent of actively farmed acres at or adjacent to the site with the
31 changes approved under Amendment #1.¹¹ The Council found that the location of these
32 facilities would "best serve" the County or the area because they would use a small fraction of
33 agricultural land. Under Amendment #2, less than one acre of additional agricultural land
34 would be occupied by the facility. This would have no effect on the percentage of actively
35 farmed land affected.

36 SCZO Section 5.8.16(a)

37 SCZO Section 5.8.16(a) requires a finding that the proposed use is compatible with
38 farm uses. The Council's findings that the construction and operation of the wind energy
39 facility would be compatible with farm use are discussed on page 35 of the Final Order on the

¹¹ Based on the Department's estimate that there are 7,150 acres of actively farmed land adjacent to the proposed facility (Final Order on the Application, p. 35, fn.47).

1 Application. In the Final Order on Amendment #1, the Council found that the facility would
2 occupy 0.9 percent of the adjacent farmed area and would not significantly change the facts
3 underlying the Council's previous findings. The additional land occupied by the facility under
4 Amendment #2 would have no effect on the percentage of actively farmed land affected and
5 would have no effect on the Council's previous findings.

B. Applicable Statewide Planning Goals

6 In the Final Order on the Application, the Council found that the proposed KWP
7 would not comply with SCZO Sections 3.1.4 and 5.8.16(d) and therefore would not comply
8 with all applicable substantive criteria from Sherman County.¹² As required under ORS
9 469.504(1)(b)(B), the Council then considered whether the proposed facility would otherwise
10 comply with Goal 3, the applicable statewide planning goal.

11 In the Final Order on the Application, the Council found that the KWP energy facility
12 is a "commercial utility facility for the purpose of generating power for public use by sale,"
13 which is allowed on agricultural land under ORS 215.283(1)(d), and that the power collection
14 system, meteorological towers, control system and O&M building are part of that principal
15 use.¹³ The Council found that the project substation is a "utility facility necessary for public
16 service," which is allowed on agricultural land under ORS 215.283(1)(d).

17 Amendment #2 would not alter the Council's previous analysis of compliance with
18 Goal 3. For the reasons discussed in the Final Order on the Application, the principal use and
19 the access roads for the KWP, as amended, would not force a significant change in accepted
20 farm practices on surrounding farm land and would not significantly increase the cost of
21 accepted farm practices. With the changes requested under Amendment #2, the KWP would
22 still occupy less than 1 percent of the actively farmed land adjacent to the facility.

23 Under the amendment, the amount of agricultural land temporarily unavailable for
24 crop production during construction of the KWP would increase by approximately 2.5 acres
25 to approximately 200.6 acres or 2.8 percent of the adjacent actively farmed area. In the Final
26 Order on Amendment #1, the Council found that a temporary impact on 2.8 percent of the
27 actively farmed area adjacent to the proposed KWP would not force a significant change in
28 accepted farm practices or significantly increase the cost of accepted farm practices.¹⁴
29 Accordingly, the changes requested under Amendment #2 would not affect the Council's
30 previous finding that the principal use and access roads would comply with the standards of
31 ORS 215.296 and OAR 660-033-0130(5).

32 In the Final Order on the Application and the Final Order on Amendment #1, the
33 Council addressed whether the KWP principal use and access roads would comply with OAR
34 660-033-0130(22), which provides as follows:

¹² SCZO Section 3.1.4 requires a setback of 30 feet from the property line for facility structures, but under Condition 42, aboveground transmission lines and junction boxes could be located in conflict with this setback requirement. SCZO Section 5.8.16(d) requires a finding that the proposed use is "situated upon generally unsuitable land for the production of farm crops and livestock." The Council found that the proposed KWP is located on land "generally suitable" for crop production and does not comply with SCZO Section 5.8.16(d).

¹³ Final Order on the Application, p. 38.

¹⁴ Final Order on Amendment #1, pp. 22-23.

(22) A power generation facility shall not preclude more than 20 acres from use as a commercial agricultural enterprise unless an exception is taken pursuant to ORS 197.732 and OAR chapter 660, division 004.

The Council found that the “power generation facility” here consists of the principal use and the turbine string access roads.¹⁵ KIII estimates that the changes requested under Amendment #2 would add 0.02 acres to the total area occupied by turbine towers and pad areas and 0.71 acres to the total area occupied by access roads. As shown in Table 3, the principal use and access roads would occupy approximately 68 acres. This exceeds the 20 acres allowed under OAR 660-033-0130(22). To issue a site certificate the Council must find that an exception to Goal 3 is justified.

Table 3: Area Occupied by the Power Generation Facility¹⁶

Structure	Acres
Principal use	
Turbine towers, including pad areas and road turnouts	9.93
Meteorological towers	0.03
Aboveground 34.5 kV collector line ¹⁷	0.14
O&M building site	4
Subtotal	14.1
Access roads ¹⁸	53.95
Total	68.05

The changes to the facility that would be allowed under Amendment #2 would not significantly affect the analysis that was the basis of the Council’s previous findings that an exception to Goal 3 should be allowed under ORS 469.504(2)(c).¹⁹ Under the amendment, the proposed facility would occupy approximately 68 acres of agricultural land, which is less than 1 percent of the actively farmed land adjacent to the facility. Most of the area added by Amendment #2 would be occupied by the access road, which would be available for use by the landowner in farm operations. The amendment would not otherwise alter the reasons supporting the exception discussed in the Final Order on the Application. The amendment would not change the Council’s previous analysis of environmental, economic, social and energy consequences or the finding that the proposed facility would be compatible with adjacent agricultural land uses.

Conclusions of Law

Based on the findings stated above, the Council concludes that an exception to Goal 3 is justified and that the KWP would comply with the Council’s Land Use Standard if Amendment #2 were approved.

¹⁵ Final Order on the Application, p. 40.

¹⁶ Compare Table 3 above with Table 3 in the Final Order on the Application.

¹⁷ Calculation based on memorandum from Dana Siegfried (for KIII), dated December 6, 2005, regarding “Response to 11/22/05 e-mail,” assuming 12 miles of transmission line, 21 transmission poles per mile and 25 sq. ft. of farmland precluded per pole.

¹⁸ Calculated by the Department, assuming 2.42 acres per mile of 20-foot-wide access road.

¹⁹ See Final Order on the Application, pp. 44-46, and Final Order on Amendment #1, pp. 24-25.

(b) Soil Protection

OAR 345-022-0022

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

Findings of Fact

In the Final Order on the Application and the Final Order on Amendment #1, the Council found that the design, construction, operation and retirement of the proposed KWP, taking into account mitigation and subject to the conditions stated in the order, would not likely cause a significant adverse impact to soils. The changes proposed in the request for Amendment #2 would increase the permanent footprint by less than one acre and would increase the area of potential construction disturbance by approximately 2.5 acres. Approval of Amendment #2 would not otherwise change the facts on which the Council relied in its previous findings regarding impact to soils. The Council finds that the design, construction, operation and retirement of the KWP as modified by Amendment #2 would not likely result in significant adverse impact to soils, taking into account the mitigation required by the site certificate conditions.

Conclusions of Law

The Council concludes that the KWP would comply with the Council's Soil Protection Standard if Amendment #2 were approved.

(c) Protected Areas

OAR 345-022-0040

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

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

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

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

(d) National and state wildlife refuges, including but not limited to Ankeny, Bandon Marsh, Baskett Slough, Bear Valley, Cape Meares, Cold Springs, Deer Flat, Hart Mountain, Julia Butler Hansen, Klamath Forest, Lewis and Clark,

1 Lower Klamath, Malheur, McKay Creek, Oregon Islands, Sheldon, Three Arch
2 Rocks, Umatilla, Upper Klamath, and William L. Finley;

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

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

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

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

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

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

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

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

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

25 Coastal Oregon Marine Experiment Station, Astoria

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

27 Agriculture Research and Extension Center, Hermiston

28 Columbia Basin Agriculture Research Center, Pendleton

29 Columbia Basin Agriculture Research Center, Moro

30 North Willamette Research and Extension Center, Aurora

31 East Oregon Agriculture Research Center, Union

32 Malheur Experiment Station, Ontario

33 Eastern Oregon Agriculture Research Center, Burns

34 Eastern Oregon Agriculture Research Center, Squaw Butte

35 Central Oregon Experiment Station, Madras

36 Central Oregon Experiment Station, Powell Butte

37 Central Oregon Experiment Station, Redmond

38 Central Station, Corvallis

39 Coastal Oregon Marine Experiment Station, Newport

40 Southern Oregon Experiment Station, Medford

41 Klamath Experiment Station, Klamath Falls;

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

- 1 (o) Bureau of Land Management areas of critical environmental concern,
2 outstanding natural areas and research natural areas;
3 (p) State wildlife areas and management areas identified in OAR chapter 635,
4 Division 8.
5 * * *

Findings of Fact

6 In the Final Order on the Application and the Final Order on Amendment #1, the
7 Council found that the KWP would not be located in any protected area as defined by OAR
8 345-022-0040(1) and that the design, construction and operation of the facility would not
9 result in significant adverse impact to any protected area, taking into account mitigation and
10 subject to the conditions included in the site certificate. The Council found that indirect
11 effects of noise, traffic and visual impact from the KWP would not have any significant
12 impact on protected areas.

13 Approval of Amendment #2 would allow construction and operation of facility
14 components outside of the previously permitted site boundary but within the certificate
15 holder's lease boundary. The expansion of the site boundary would not increase the size of the
16 analysis area. The changes to the facility that would be allowed if Amendment #2 were
17 approved would not change the facts on which the Council relied in its previous findings
18 regarding potential noise, traffic, water and wastewater impacts.

19 The Council finds that the changes requested in Amendment #2 would have no
20 significant adverse effect on any protected area.

Conclusions of Law

21 For the reasons discussed above, the Council concludes that the KWP would comply
22 with the Council's Protected Areas Standard if Amendment #2 were approved.

(d) Scenic Resources

OAR 345-022-0080

23 (1) *Except for facilities described in section (2), to issue a site certificate, the*
24 *Council must find that the design, construction and operation of the facility, taking*
25 *into account mitigation, are not likely to result in significant adverse impact to*
26 *scenic resources and values identified as significant or important in local land use*
27 *plans, tribal land management plans and federal land management plans for any*
28 *lands located within the analysis area described in the project order.*
29 * * *

Findings of Fact

31 In the Final Order on the Application, the Council described the visual features of the
32 proposed KWP.²⁰ Approval of Amendment #2 would not change the lease area occupied by
33 the facility or change the maximum number of wind turbines that would be built. Table 5 in
34 the Final Order on the Application listed 13 federal and state land management areas within
35 30 miles of the site boundary. As shown on Figure 2, a turbine constructed within the

²⁰ Final Order on the Application, p. 54.

1 proposed new micrositing area would not be closer to these areas than other KWP turbines
2 previously authorized by the Council.

3 As discussed in the Final Order on Amendment #1, only four of the management areas
4 are within five miles of the KWP and contain scenic and aesthetic values identified as
5 significant or important: the John Day River, the Oregon National Historic Trail, Sherman
6 County and Gilliam County.

7 According to the visibility analysis submitted by KIII, a turbine at the proposed
8 location would not be visible from the John Day River.²¹ Approval of Amendment #2,
9 therefore, would have no adverse effect on important scenic resources within the John Day
10 Federal Wild and Scenic River or the John Day State Scenic Waterway.

11 The management plan for the Oregon National Historic Trail identifies only one “high
12 potential” site within 30 miles from the KWP from which any part of the facility might be
13 visible: the John Day River Crossing.²² “High potential” sites are sites that have potential to
14 interpret the Trail’s historical significance and that afford a high-quality recreational
15 experience and greater than average scenic values. A turbine at the location proposed by
16 Amendment #2 would not be visible from the John Day River Crossing.

17 The Sherman County Comprehensive Plan identifies scenic resources within the
18 County. SCCP Section XI, Finding XI, identifies “rock outcroppings, trees, the John Day
19 River Canyon and the Deschutes River Canyon” as “important features of the County’s
20 landscape. The Finding also notes “scenic highway” designations by the Oregon Department
21 of Transportation. In the Final Order on the Application, the Council found that the proposed
22 KWP would not result in a significant adverse impact to the scenic resources identified in the
23 local Sherman County land use plan. The changes that would be allowed if Amendment #2
24 were approved would not change the basis of that finding.

25 The nearest parts of Gilliam County are east of the John Day River, at least two miles
26 from the KWP site. As described in the Final Order on the Application, the Gilliam County
27 Comprehensive Plan identifies “rock outcroppings marking the rim and walls of steep canyon
28 slopes” as important scenic resources and identifies the John Day River corridor as a scenic
29 resource. According to the KIII’s visibility analysis, a turbine in the proposed location would not
30 be visible from the John Day River Canyon. The turbine would have no effect on rock
31 outcroppings and scenic canyons in Gilliam County.

32 The Council finds that the changes requested in Amendment #2 would have no
33 significant adverse effect on scenic resource and values identified as significant or important
34 in applicable federal land management plans or in local land use plans.

Conclusions of Law

35 For the reasons discussed above, the Council concludes that the KWP would comply
36 with the Council’s Scenic Resources Standard if Amendment #2 were approved.

²¹ Appendix R-1, Request for Amendment #2.

²² Final Order on the Application, p. 56.

(e) Recreation

OAR 345-022-0100

(1) Except for facilities described in section (2), to issue a site certificate, the Council must find that the design, construction and operation of a facility, taking into account mitigation, are not likely to result in a significant adverse impact to important recreational opportunities in the analysis area as described in the project order. The Council shall consider the following factors in judging the importance of a recreational opportunity:

- (a) Any special designation or management of the location;*
- (b) The degree of demand;*
- (c) Outstanding or unusual qualities;*
- (d) Availability or rareness;*
- (e) Irreplaceability or irretrievability of the opportunity.*

* * *

Findings of Fact

In the Final Order on the Application, the Council found that recreational opportunities associated with the John Day River, the Journey Through Time Scenic Byway and historic trail alignments are important recreational opportunities within the analysis area. The Council found that the design, construction, operation and retirement of the proposed KWP facilities would not result in significant adverse impact to these recreational opportunities, taking into account the mitigation that is required under site certificate conditions. The changes that would be allowed under Amendment #2 would not affect the facts upon which the Council relied in making these findings. The Council finds that there has been no change of facts or circumstances that would affect the Council's earlier findings regarding the impacts of the KWP on recreational opportunities.

Conclusions of Law

For the reasons discussed above, the Council concludes that the KWP would comply with the Council's Recreation Standard if Amendment #2 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

In the Final Order on the Application, the Council found that KIII could design, construct and operate the proposed KWP facilities to exclude members of the public from close proximity to the turbine blades and electrical equipment, to preclude structural failure of

1 the tower or blades that could endanger the public safety and to have adequate safety devices
2 and testing procedures. To ensure public safety, the Council included Conditions 54, 58, 59,
3 60, 61, 62, 63, 64 and 98 in the site certificate.

4 Amendment #2 would allow the certificate holder to place a turbine within a new area.
5 Amendment #2 would not involve any other change in the design, size or location of facility
6 components or any change in the conditions relating to public safety. The Council finds that
7 there has been no change of facts or circumstances that would affect the Council's earlier
8 findings regarding public health and safety at the KWP site.

Conclusions of Law

9 For the reasons discussed above, the Council concludes that the KWP would comply
10 with the Council's Public Health and Safety Standards for Wind Energy Facilities if
11 Amendment #2 were approved.

(g) Siting Standards for Wind Energy Facilities

OAR 345-024-0015

12 *To issue a site certificate for a proposed wind energy facility, the Council must*
13 *find that the applicant can design and construct the facility to reduce cumulative*
14 *adverse environmental effects in the vicinity by practicable measures including,*
15 *but not limited to, the following:*
16

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

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

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

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

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

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

Findings of Fact

30 In the Final Order on the Application and in the Final Order on Amendment #1, the
31 Council found that the certificate holder could design and construct the KWP facilities to
32 reduce visual impact, to restrict public access and to reduce cumulative adverse environmental
33 impacts in the vicinity to the extent practicable in accordance with the requirements of OAR
34 345-024-0015 in effect at the time of those decisions. Amendment #2 would allow
35 construction within a new micro-siting area but would not increase the total number of turbines
36 authorized under the site certificate.

1 **Roads**

2 Approval of Amendment #2 would not increase the overall length of new access roads
3 previously-approved for the facility.

4 **Transmission**

5 Approval of Amendment #2 would not increase the overall length of transmission
6 lines previously-approved for the facility. The collector line serving the turbine within the
7 new micrositing area would be installed underground.

8 **Substations**

9 Approval of Amendment #2 would not add a new substation. The Council previously
10 approved one facility substation to be located near the existing Klondike I and II
11 “Schoolhouse” facilities.

12 **Wildlife Protection**

13 The facility would be designed to reduce the risk of injury to raptors or other
14 vulnerable wildlife in areas near turbines or electrical equipment. The creation of artificial
15 habitat for raptors or raptor prey would be avoided. Pad-mounted transformers at each turbine
16 would be designed to avoid use by raptors or prey species as artificial habitat (Condition 64).
17 Turbine pad areas would be graveled to reduce the potential for erosion and weed infestation
18 (Condition 78). The turbines, including turbine MHI-1, would be mounted on smooth tubular
19 towers rather than lattice towers to avoid creating horizontal perching opportunities. No new
20 aboveground transmission line would be added to the facility under Amendment #2, and all
21 previously-approved transmission support poles would conform to raptor protection
22 guidelines recommended by the Avian Powerline Interaction Committee and would have anti-
23 perching devices (Condition 90). Meteorological towers would be free-standing, 80-meter
24 pole structures with no guy wires.

25 **Visual Features**

26 The amendment would not alter the site certificate conditions addressing mitigation of
27 visual impacts.²³ Under Amendment #2, turbine MHI-1 would be mounted on a tubular steel
28 tower painted white or light gray, similar to all of the other turbine towers within the facility
29 (Condition 98). No advertising signs would be posted at the facility. There would be no signs
30 at the facility except signs required by law or necessary for health and safety purposes and a
31 sign identifying the facility.

32 **Lighting**

33 The turbines within the KWP, including turbine MHI-1, would have the minimum
34 lighting required by the FAA or conforming to FAA guidelines. The O&M building would
35 have low impact (focused downward) exterior lighting for safety and security purposes
36 (Condition 100).

Conclusions of Law

37 For the reasons discussed above, the Council concludes that the KWP would comply
38 with the Council’s Siting Standards for Wind Energy Facilities if Amendment #2 were
39 approved.

²³ Conditions 98, 99 and 100.

(h) Siting Standards for Transmission Lines

1 **OAR 345-024-0090**

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

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

7 *(2) Can design, construct and operate the proposed transmission line so that*
8 *induced currents resulting from the transmission line and related or supporting*
9 *facilities will be as low as reasonably achievable.*

Findings of Fact

10 In the Final Order on the Application, the Council found that KIII could design,
11 construct and operate the proposed transmission lines in accordance with the standards
12 described in OAR 345-024-0090. Transmission lines for the proposed KWP include
13 underground and aboveground 34.5-kV collector lines. Under Amendment #2, there would be
14 no increase in the overall length of the collector system (approximately 59 miles) previously-
15 approved by the Council. The collector line serving turbine location MHI-1 would be installed
16 underground. The changes that would be allowed if Amendment #2 were approved would not
17 affect the basis for the Council’s previous findings that the 34.5-kV collector line could be
18 designed, constructed and operated in compliance with OAR 345-024-0090.

Conclusions of Law

19 For the reasons discussed above, the Council concludes that the KWP would comply
20 with the Council’s Siting Standards for Transmission Lines if Amendment #2 were approved.

4. Standards to Protect Wildlife

(a) Threatened and Endangered Species

21 **OAR 345-022-0070**

22 *To issue a site certificate, the Council, after consultation with appropriate state*
23 *agencies, must find that:*

24 *(1) For plant species that the Oregon Department of Agriculture has listed as*
25 *threatened or endangered under ORS 564.105(2), the design, construction and*
26 *operation of the proposed facility, taking into account mitigation:*

27 *(a) Are consistent with the protection and conservation program, if any, that*
28 *the Oregon Department of Agriculture has adopted under ORS 564.105(3); or*

29 *(b) If the Oregon Department of Agriculture has not adopted a protection and*
30 *conservation program, are not likely to cause a significant reduction in the*
31 *likelihood of survival or recovery of the species; and*

32 *(2) For wildlife species that the Oregon Fish and Wildlife Commission has listed*
33 *as threatened or endangered under ORS 496.172(2), the design, construction and*
34 *operation of the proposed facility, taking into account mitigation, are not likely to*
35 *cause a significant reduction in the likelihood of survival or recovery of the*
36 *species.*

Findings of Fact

1 The amendment would enlarge the site boundary of the KWP by approximately 18.5
2 acres. All of this additional area is cultivated agricultural land. Because the proposed new area
3 lies within the general perimeter of the previously-approved KWP facility, there would be no
4 change to the analysis area.

5 Based on an investigation for rare plant species described in the Final Order on the
6 Application, no threatened or endangered plant species listed as under ORS 564.105(2) are
7 likely to occur in the analysis area.²⁴ No habitat suitable for threatened or endangered plant
8 species exists within the 18.5-acre microsite area that would be added to the site boundary
9 under Amendment #2. Accordingly, the Council finds that the design, construction and
10 operation of the proposed facility with the changes allowed under Amendment #2 are not
11 likely to adversely affect any endangered or threatened plant species.

12 Table 6 on page 70 of the Final Order on the Application lists the threatened and
13 endangered species that have a potential to occur within the five-mile analysis area, based on
14 the investigations described in the order. In the Final Order on the Application, the Council
15 found that the only threatened or endangered species that the proposed KWP could potentially
16 affect are the bald eagle (federal and state threatened species) and American peregrine falcon
17 (state endangered species).²⁵

18 No bald eagle nests, roosting areas or critical habitat areas are known to exist within
19 the analysis area. Bald eagles have been observed feeding on wintering waterfowl along the
20 Columbia River corridor but have not been observed in upland areas within or near the KWP
21 site boundary.²⁶ The changes to the facility that would be allowed if Amendment #2 were
22 approved would not affect the basis for the Council's previous finding that the design,
23 construction, operation and retirement of the facility are not expected to have any significant
24 adverse effect on bald eagles.

25 American peregrine falcons might appear in the analysis area year-round, but the
26 closest known nest site is about 6.5 miles from the KWP site. Prey species may exist within
27 the site boundary where suitable habitat exists, but no peregrine falcons were observed during
28 the winter and spring avian baseline surveys in 2004-2005.²⁷ The changes to the facility that
29 would be allowed if Amendment #2 were approved would not affect the basis for the
30 Council's previous finding that the design, construction, operation and retirement of the
31 facility are not expected to have any significant adverse effect on American peregrine falcons.

32 Fatality monitoring, raptor nest monitoring and avian use surveys required under
33 Condition 95 would provide additional data regarding the possible use of the KWP site by
34 bald eagles or peregrine falcons and would provide for additional mitigation, if necessary.

Conclusions of Law

35 For the reasons discussed above, the Council concludes that the KWP would comply
36 with the Council's Threatened and Endangered Species Standard if Amendment #2 were
37 approved.

²⁴ Final Order on the Application, p. 69.

²⁵ The USFWS removed the bald eagle from the federal list of threatened species on June 28, 2007.

²⁶ Final Order on the Application, pp. 71-72.

²⁷ Final Order on the Application, p. 72

(b) Fish and Wildlife Habitat

OAR 345-022-0060

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

Findings of Fact

In the Final Order on the Application and in the Final Order on Amendment #1, the Council made findings regarding the estimated potential impact of the KWP on wildlife habitat resulting from a “worst-case” analysis. Under this worst-case analysis, the Council found that the placement of turbines, access roads and other KWP structures would have a permanent effect on approximately 71 acres of land.²⁸ The Council found that an additional 223 acres would be temporarily affected during construction. The Council found that approximately 88 percent of the permanent impact and 90 percent of the temporary impact would be on cultivated or otherwise developed agricultural land that is considered Category 6 habitat under the Oregon Department of Fish and Wildlife (ODFW) standards in OAR 625-415-0025.

In the Final Order on the Amendment #1, the Council found that higher-value wildlife habitat permanently affected by the KWP included approximately 0.66 acres of Category 2 habitat, approximately 7.75 acres of Category 3 habitat and less than 0.1 acres of Category 4 habitat. Condition 97 requires the certificate holder to implement a Habitat Mitigation Plan to improve the wildlife habitat quality of other acreage near the facility as mitigation for the permanent impacts of the facility. In addition, the Habitat Mitigation Plan includes additional acres to mitigate for possible “displacement effects” on grassland bird species that might be discouraged from use of grassland areas near the KWP turbines.

In the Final Order on the Amendment #1, the Council found that construction activities would have a temporary impact on approximately 1.25 acres of Category 2 habitat, approximately 21 acres of Category 3 habitat and less than 0.3 acres of Category 4 habitat. Condition 81 requires the certificate holder to restore all areas of temporary disturbance according to the methods, monitoring procedures and success criteria described in the Revegetation Plan.

In the Final Order on Amendment #1, the Council found that the KWP would comply with the Habitat Standard, taking into consideration the mitigation required under the plans described above and under other conditions of the site certificate.²⁹

The Request for Amendment #2 describes changes to the facility that would increase the total area of permanent and temporary impact on habitat. Table 4 shows the revised area of permanent and temporary impacts if Amendment #2 were approved, based on worst-case analysis.³⁰

²⁸ The impact of these structures would be “permanent” for the life of the facility until completion of site restoration.

²⁹ Final Order on Amendment #1, pp. 36-41.

³⁰ Compare Table 3 herein with Table 5 in the Final Order on Amendment #1.

Table 4: Maximum Area of Affected Higher-Value Habitat (Worst-Case)

Habitat type	Area of temporary impact (acres)	Area of permanent impact (acres)
Category 2		
Grassland	1.25	0.63
Shrub-steppe	0.00	0.03
Category 3		
CRP	16.35	7.29
Grassland	3.29	0.43
Shrub-steppe	1.42	0.00
Upland trees	0.00	0.03
Category 4		
Grassland	0.286	0.05
Category 6		
Developed	2.67	0.00
Agricultural	200.6	63.57
TOTAL	225.87	72.03

1 As shown in Table 4, approximately 88 percent of the permanent impact and 90
 2 percent of the temporary impact would be on cultivated or otherwise developed agricultural
 3 land that is considered Category 6. Under the amendment, there would be no increase in the
 4 area of permanent impact on higher-value habitat, and the calculation of mitigation acres for
 5 the “footprint” impacts of the KWP would not change. Accordingly, the Council finds that
 6 implementation of the previously-approved Habitat Mitigation Plan, required under Condition
 7 97, would be adequate mitigation for the footprint impacts of the facility if Amendment #2
 8 were approved. The Council revises the Habitat Mitigation Plan to remove inconsistent
 9 references to the overall area of permanent impact. A revised Habitat Mitigation Plan is
 10 attached to this final order (Attachment C) and the changes are explained in Revision 24 at
 11 page 47 below.

12 Amendment #2, if approved, would increase the area of temporary disturbance during
 13 construction. Accordingly, the Council revises the Revegetation Plan to make the description
 14 of temporary disturbance in the plan consistent with the temporary disturbance that would be
 15 authorized under the amendment. Condition 81 requires the certificate holder to implement
 16 the Revegetation Plan. A revised Revegetation Plan is attached to this final order (Attachment
 17 B) and the changes are explained in Revision 22 at page 46 below.

18 With the changes to the mitigation plans described above, the Council finds that the
 19 KWP would be consistent with the fish and wildlife habitat mitigation goals and standards of
 20 OAR 635-415-0025 under the proposed amendment.

Conclusions of Law

21 The Council concludes, subject to the revisions of the mitigation plans referenced in
 22 Conditions 81 and 97, that the KWP would comply with the Council’s Fish and Wildlife
 23 Habitat Standard if Amendment #2 were approved.

5. Standards Not Applicable to Site Certificate Eligibility

Under ORS 469.501(4), the Council may issue a site certificate without making the findings required by the standards discussed in this section (Structural Standard, Historic, Cultural and Archaeological Resources Standard, Public Services Standard and Waste Minimization Standard).³¹ Nevertheless, the Council may impose site certificate conditions based on the requirements of these standards.

(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.

* * *

Conditions

In the Final Order on the Application, the Council made findings regarding the site-specific characterization of seismic, geologic and soil hazards for the KWP. Turbine location HMI-1 is on land with similar geological conditions as the locations of the previously-

³¹ 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.

1 approved turbine strings D, E and G. Condition 53 requires the certificate holder to conduct
2 appropriate site-specific geotechnical investigation before construction. This investigation is
3 to determine the subsurface and foundation support conditions at the locations of the turbine
4 towers and other significant facility structures. The certificate holder must consult with, and
5 report geotechnical investigation findings to, the Oregon Department of Geology & Mineral
6 Industries. Condition 54 requires the certificate holder to design and construct the facility in
7 accordance with requirements set forth by the State of Oregon's Building Code Division and
8 any other applicable codes and design procedures. In addition, Council rules include
9 mandatory conditions regarding geotechnical investigation and protection of the public from
10 seismic hazards (Conditions 12, 13 and 14). The changes that would be allowed if
11 Amendment #2 were approved would not affect site certificate conditions related to the
12 Structural Standard. The Council finds that no new or amended site certificate conditions are
13 needed under the proposed amendment.

(b) Historic, Cultural and Archaeological Resources

OAR 345-022-0090

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 impacts to:*

17 *(a) Historic, cultural or archaeological resources that have been listed on, or*
18 *would likely be listed on the National Register of Historic Places;*

19 *(b) For a facility on private land, archaeological objects, as defined in ORS*
20 *358.905(1)(a), or archaeological sites, as defined in ORS 358.905(1)(c); and*

21 *(c) For a facility on public land, archaeological sites, as defined in ORS*
22 *358.905(1)(c).*

23
24 *(2) The Council may issue a site certificate for a facility that would produce power*
25 *from wind, solar or geothermal energy without making the findings described in*
26 *section (1). However, the Council may apply the requirements of section (1) to*
27 *impose conditions on a site certificate issued for such a facility.*

28 * * *

Conditions

29 Condition 48 requires additional field investigation of all areas of permanent or
30 temporary disturbance that were not previously surveyed in 2005 or 2006 by Archaeological
31 Investigations Northwest, Inc., (AINW). The Request for Amendment #2 included a survey
32 report from AINW regarding the proposed new micro-siting area. AINW conducted a field
33 investigation in February 2007. The investigation did not identify any cultural or
34 archaeological resources. The report did not recommend further field work in this location.

35 Condition 49 requires construction personnel to be trained in the identification of
36 archeological or cultural materials. Condition 50 requires that earth-disturbing activities be
37 halted if archeological objects are discovered in the course of construction of the facility, in
38 accordance with ORS 97.745 and 358.920. Condition 51 requires that construction of the
39 KWP proceed carefully in the vicinity of the mapped alignment of the Oregon Trail and that
40 any intact physical evidence of the trail discovered during construction be protected from
41 disturbance. Condition 52 requires pre-construction photo-documentation of the setting of the

1 Oregon Trail alignment and enhancement of the existing Oregon Trail historical marker at
2 Biggs. The Council finds that no new or amended site certificate conditions are needed under
3 the proposed amendment.

(c) Public Services

OAR 345-022-0110

4
5 *(1) Except for facilities described in sections (2) and (3), to issue a site certificate,*
6 *the Council must find that the construction and operation of the facility, taking*
7 *into account mitigation, are not likely to result in significant adverse impact to the*
8 *ability of public and private providers within the analysis area described in the*
9 *project order to provide: sewers and sewage treatment, water, storm water*
10 *drainage, solid waste management, housing, traffic safety, police and fire*
11 *protection, health care and schools.*

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

16 * * *

Conditions

17 In the Final Order on the Application, the Council discussed the public service impacts
18 of construction and operation of the KWP regarding sewage, storm water, solid waste, water
19 supply, housing, police and fire protection, health care, schools and traffic safety. The Council
20 found that the impacts would not be significant. Conditions adopted to address other Council
21 standards adequately addressed the Council's concerns under the Public Service Standard.³²

22 The changes that would be allowed under Amendment #2 would not increase the
23 number employees during construction or operation. The amendment would not change the
24 quantity of solid waste, wastewater or storm water. The amendment would not increase traffic
25 volume on nearby roads during construction or operation compared to traffic volumes without
26 the amendment. The requested changes would not increase the level of fire risk or the need for
27 other emergency response. For these reasons, the Council concludes that no new or modified
28 conditions are required.

(d) Waste Minimization

OAR 345-022-0120

29
30 *(1) Except for facilities described in sections (2) and (3), to issue a site certificate,*
31 *the Council must find that, to the extent reasonably practicable:*

32 *(a) The applicant's solid waste and wastewater plans are likely to minimize*
33 *generation of solid waste and wastewater in the construction and operation of the*
34 *facility, and when solid waste or wastewater is generated, to result in recycling*
35 *and reuse of such wastes;*

³² Conditions that address the issues under the Public Service Standard include Conditions 39, 40, 41, 44, 63, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 78, 79, 80, 82, 83, 103, 104, 105, 106 and 107.

1 (b) *The applicant's plans to manage the accumulation, storage, disposal and*
2 *transportation of waste generated by the construction and operation of the facility*
3 *are likely to result in minimal adverse impact on surrounding and adjacent areas.*
4 (2) *The Council may issue a site certificate for a facility that would produce power*
5 *from wind, solar or geothermal energy without making the findings described in*
6 *section (1). However, the Council may apply the requirements of section (1) to*
7 *impose conditions on a site certificate issued for such a facility.*

8 * * *

Conditions

9 In the Final Order on the Application, the Council adopted Conditions 105, 106 and
10 107, which address solid waste management on the site during construction and operation.
11 The Council adopted Conditions 73 and 74, which address proper handling of hazardous
12 materials and response to spills and accidental releases of hazardous materials. Conditions 80,
13 83, 103 and 104 address industrial and sanitary wastewater during construction and operation.
14 The changes that would be allowed under Amendment #2 would not increase the amount of
15 solid waste or wastewater that is expected to result from construction and operation. The
16 amendment would not affect site certificate conditions related to the Waste Minimization
17 Standard. The Council concludes that no new or modified conditions are required.

V. OTHER APPLICABLE REGULATORY REQUIREMENTS: FINDINGS AND CONCLUSIONS

1. Requirements under Council Jurisdiction

18 Under ORS 469.503(3) and under the Council's General Standard of Review (OAR
19 345-022-0000, the Council must determine that the proposed facility complies with "all other
20 Oregon statutes and administrative rules identified in the project order, as amended, as
21 applicable to the issuance of a site certificate for the proposed facility." Other Oregon statutes
22 and administrative rules that are applicable to the changes requested in Amendment #2
23 include the noise control regulations adopted by the Environmental Quality Commission, the
24 Department of State Lands' regulations for removal or fill of material affecting waters of the
25 state, the Water Resources Department's (WRD) regulations for appropriating ground water,
26 and the Council's statutory authority to consider protection of public health and safety.³³

(a) Noise Control Regulations

27 The applicable noise control regulations are as follows:

OAR 340-035-0035

Noise Control Regulations for Industry and Commerce

(1) Standards and Regulations:

31 * * *

(b) New Noise Sources:

33 * * *

³³ In the Final Order on the Application, the Council addressed the Oregon Department of Transportation's regulations for location and construction of buried cables within State Highway right-of-way. The changes requested in Amendment #2 would not affect the Council's previous findings regarding these regulations and would not require any change to Condition 86 (required permit).

1 (B) *New Sources Located on Previously Unused Site:*

2 (i) *No person owning or controlling a new industrial or commercial*
3 *noise source located on a previously unused industrial or commercial site shall*
4 *cause or permit the operation of that noise source if the noise levels generated or*
5 *indirectly caused by that noise source increase the ambient statistical noise levels,*
6 *L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in*
7 *Table 8, as measured at an appropriate measurement point, as specified in*
8 *subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).*

9 (ii) *The ambient statistical noise level of a new industrial or*
10 *commercial noise source on a previously unused industrial or commercial site*
11 *shall include all noises generated or indirectly caused by or attributable to that*
12 *source including all of its related activities. Sources exempted from the*
13 *requirements of section (1) of this rule, which are identified in subsections (5)(b) -*
14 *(f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.*

15 (iii) *For noise levels generated or caused by a wind energy facility:*

16 (I) *The increase in ambient statistical noise levels is based on an*
17 *assumed background L50 ambient noise level of 26 dBA or the actual ambient*
18 *background level. The person owning the wind energy facility may conduct*
19 *measurements to determine the actual ambient L10 and L50 background level.*

20 (II) *The "actual ambient background level" is the measured noise*
21 *level at the appropriate measurement point as specified in subsection (3)(b) of this*
22 *rule using generally accepted noise engineering measurement practices.*
23 *Background noise measurements shall be obtained at the appropriate*
24 *measurement point, synchronized with windspeed measurements of hub height*
25 *conditions at the nearest wind turbine location. "Actual ambient background*
26 *level" does not include noise generated or caused by the wind energy facility.*

27 (III) *The noise levels from a wind energy facility may increase the*
28 *ambient statistical noise levels L10 and L50 by more than 10 dBA (but not above*
29 *the limits specified in Table 8), if the person who owns the noise sensitive property*
30 *executes a legally effective easement or real covenant that benefits the property on*
31 *which the wind energy facility is located. The easement or covenant must authorize*
32 *the wind energy facility to increase the ambient statistical noise levels, L10 or L50*
33 *on the sensitive property by more than 10 dBA at the appropriate measurement*
34 *point.*

35 (IV) *For purposes of determining whether a proposed wind energy*
36 *facility would satisfy the ambient noise standard where a landowner has not*
37 *waived the standard, noise levels at the appropriate measurement point are*
38 *predicted assuming that all of the proposed wind facility's turbines are operating*
39 *between cut-in speed and the wind speed corresponding to the maximum sound*
40 *power level established by IEC 61400-11 (version 2002-12). These predictions*
41 *must be compared to the highest of either the assumed ambient noise level of 26*
42 *dBA or to the actual ambient background L10 and L50 noise level, if measured.*
43 *The facility complies with the noise ambient background standard if this*
44 *comparison shows that the increase in noise is not more than 10 dBA over this*
45 *entire range of wind speeds.*

1 (V) For purposes of determining whether an operating wind energy
2 facility complies with the ambient noise standard where a landowner has not
3 waived the standard, noise levels at the appropriate measurement point are
4 measured when the facility's nearest wind turbine is operating over the entire
5 range of wind speeds between cut-in speed and the windspeed corresponding to
6 the maximum sound power level and no turbine that could contribute to the noise
7 level is disabled. The facility complies with the noise ambient background
8 standard if the increase in noise over either the assumed ambient noise level of 26
9 dBA or to the actual ambient background L10 and L50 noise level, if measured, is
10 not more than 10 dBA over this entire range of wind speeds.

11 (VI) For purposes of determining whether a proposed wind energy
12 facility would satisfy the Table 8 standards, noise levels at the appropriate
13 measurement point are predicted by using the turbine's maximum sound power
14 level following procedures established by IEC 61400-11 (version 2002-12), and
15 assuming that all of the proposed wind facility's turbines are operating at the
16 maximum sound power level.

17 (VII) For purposes of determining whether an operating wind
18 energy facility satisfies the Table 8 standards, noise generated by the energy
19 facility is measured at the appropriate measurement point when the facility's
20 nearest wind turbine is operating at the windspeed corresponding to the maximum
21 sound power level and no turbine that could contribute to the noise level is
22 disabled.

23 * * *

Findings of Fact

24 In the Final Order on the Application, the Council found that noise levels generated
25 by the proposed facility would not exceed the "maximum allowable" (Table 8) test described
26 in OAR 340-035-0035(1)(b)(B) at any of the seven noise sensitive receivers that have the
27 potential of receiving noise from the proposed facility. The Council found that the predicted
28 noise levels at five of the seven receivers would exceed the ambient degradation limit
29 described in the regulation. To ensure compliance with the regulation, the Council adopted
30 Condition 102. Under the condition, facility noise levels could exceed the 10-dBA ambient
31 degradation limit if the certificate holder obtains a "legally effective easement or real
32 covenant" from the affected landowners. For those properties for which the landowner has not
33 signed a "waiver" of the ambient degradation limit, Condition 102 requires the certificate
34 holder to identify the final turbine locations and provide a noise analysis that demonstrates
35 that the facility would comply with the 10-dBA limit.

36 In analyzing the potential noise effects if Amendment #2 were approved, the
37 certificate holder assumed a maximum sound power level of 110 dBA for turbine MHI-1 and
38 a maximum sound power level of 106 dBA for the previously-approved smaller turbines
39 (shown as blue dots on Figure 2). The analysis assumed that turbine MHI-1 would be located
40 within the new micro-siting corridor at a location nearest the closest noise sensitive property
41 (the property identified as "R2" on Figure 2). Due to distance, noise from turbine MHI-1
42 would not affect the previously-estimated noise levels at any other noise sensitive properties
43 that would receive noise from the KWP.

1 To perform the analysis, KIII used the Sound Propagation Model for Outdoor Noise
2 Sources (SPM 9613, Version 2) to predict facility noise levels at R2. According to the
3 analysis, the predicted noise level at R2 is 37 dBA. This noise level would exceed the 36-dBA
4 limit of the “ambient degradation” test but would not exceed the 50-dBA “maximum
5 allowable” (Table 8). The certificate holder has submitted to the Department a “legally
6 effective easement or real covenant” authorizing the certificate holder’s operation of the
7 facility to increase ambient statistical noise levels L₁₀ and L₅₀ by more than 10 dBA for
8 receiver R2.³⁴ Based on the “noise waiver,” the noise level at R2 may exceed the 36-dBA
9 limit without violating the noise regulation.³⁵

Conclusions of Law

10 Based on the findings above, the Council finds that, if Amendment #2 were approved,
11 the KWP would comply with the applicable noise control regulations in OAR 340-035-0035.

(b) Removal-Fill Law

12 The Oregon Removal-Fill Law (ORS 196.800 through 990) and regulations (OAR
13 141-085-0005 through 141-085-0090) adopted by the Department of State Lands (DSL)
14 require a Removal/Fill Permit if 50 cubic yards or more of material is removed, filled or
15 altered within any “waters of the state” at the proposed site.³⁶ The Council must determine
16 whether a permit is needed. In addition, the U.S. Army Corps of Engineers administers
17 Section 404 of the Clean Water Act, which regulates the discharge of fill into waters of the
18 United States (including wetlands). Under Section 404, a federal Nationwide or Individual fill
19 permit may be required.

20 In the Final Order on the Application, the Council concluded that a Removal/Fill
21 permit was not needed, subject to the requirements of Condition 79. Condition 79 requires the
22 certificate holder to avoid impacts to waters of the state identified in Appendix J-1 of the site
23 certificate application and to conduct a pre-construction investigation in any locations that
24 would be affected by construction but that had not previously been investigated. Condition 79
25 requires the certificate holder to submit a written report on the pre-construction investigation
26 to the Department of Energy and to DSL for approval before beginning construction and to
27 ensure that construction of the facility would have no impact on any jurisdictional water
28 identified in the report.

29 The changes requested by Amendment #2 include changes to the site boundary. The
30 certificate holder conducted an investigation within the proposed new micro-siting area. The
31 Request for Amendment #2, which contained the results of the investigation, was sent to
32 DSL.³⁷ The investigation concluded that no wetlands or other waters of the state exist within
33 the new area.

³⁴ Appendix X-1, Request for Amendment #1, and attachments to e-mail from Jesse Gronner, August 29, 2006.

³⁵ OAR 340-035-0035(1)(b)(B)(iii)(III).

³⁶ OAR 141-085-0010(225) defines “Waters of this State.” The term includes wetlands and certain other water bodies.

³⁷ Request for Amendment #1, Appendix J-1.

Conclusions of Law

1 Based on the findings discussed above, the Council concludes that the KWP would
2 comply with applicable regulations pertaining to jurisdictional waters of the state if
3 Amendment #2 were approved and that no removal/fill permit is required.

(c) Ground Water Act

4 Through the provisions of the Ground Water Act of 1955, ORS 537.505 to ORS
5 537.796, and OAR Chapter 690, the Oregon Water Resources Commission administers the
6 rights of appropriation and use of the ground water resources of the state. Under OAR 345-
7 022-0000(1), the Council must determine whether the proposed KWP complies with these
8 statutes and administrative rules.

Findings of Fact

9 In the Final Order on the Application, the Council found that the certificate holder
10 could obtain sufficient water during construction (approximately 18 million gallons) and that
11 no new water right would be needed. The Council found that less than 5,000 gallons per day
12 would be used during facility operation for domestic purposes and blade-washing. This water
13 would come from a new on-site well. No new water right would be needed for this use. The
14 Council adopted Condition 83, which requires the certificate holder to demonstrate to the
15 Department that blade-washing would be authorized under a DEQ general permit or that no
16 permit would be required.

17 The changes that would be allowed under Amendment #2 would not increase the
18 number of turbines within the facility. Accordingly, the amendment would not increase the
19 quantity of water needed during construction. The amendment would not change the number
20 of employees during facility operation or affect the quantity of water that is likely to be used
21 for blade-washing.

Conclusions of Law

22 Based on the findings discussed above, the Council concludes that the KWP would
23 comply with applicable regulations pertaining to water rights if Amendment #2 were
24 approved.

(d) Public Health and Safety

25 Under ORS 469.310, the Council is charged with ensuring that the “siting,
26 construction and operation of energy facilities shall be accomplished in a manner consistent
27 with protection of the public health and safety....” State law further provides that “the site
28 certificate shall contain conditions for the protection of the public health and safety....” ORS
29 469.401(2).

Findings of Fact

30 In the Final Order on the Application, the Council made findings regarding public
31 safety addressing fire protection, magnetic field effects from transmission lines, highway
32 safety and coordination with the Oregon Public Utility Commission. The changes that would
33 be allowed if Amendment #2 were approved would not affect any of the Council’s previous

1 findings. The Council concludes that no changes to the public safety conditions in the site
2 certificate are necessary.

Conclusions of Law

3 Based on the findings discussed above, the Council concludes that the KWP would
4 comply with requirements to protect public health and safety if Amendment #2 were
5 approved.

2. Requirements That Are Not Under Council Jurisdiction

(a) Federally-Delegated Programs

6 Under ORS 469.503(3), the Council does not have jurisdiction for determining
7 compliance with statutes and rules for which the federal government has delegated the
8 decision on compliance to a state agency other than the Council. Nevertheless, the Council
9 may rely on the determinations of compliance and the conditions in the federally-delegated
10 permits issued by these state agencies in deciding whether the proposed facility meets other
11 standards and requirements under its jurisdiction. As required under Condition 76, the
12 certificate holder would conduct all construction work in compliance with an Erosion and
13 Sediment Control Plan satisfactory to the Oregon Department of Environmental Quality and
14 as required under the federally-delegated National Pollutant Discharge Elimination System
15 Storm Water Discharge General Permit #1200-C. The requirements of the 1200-C permit
16 would apply to the facility as described under the amendment.

(b) Requirements That Do Not Relate to Siting

17 Under ORS 469.401(4), the Council does not have authority to preempt the
18 jurisdiction of any state agency or local government over matters that are not included in and
19 governed by the site certificate or amended site certificate. Such matters include
20 design-specific construction or operating standards and practices that do not relate to siting.
21 Nevertheless, the Council may rely on the determinations of compliance and the conditions in
22 the permits issued by these state agencies and local governments in deciding whether the
23 facility meets other standards and requirements under its jurisdiction.

VI. GENERAL APPLICATION OF CONDITIONS

24 The conditions referenced in this final order include conditions that are specifically
25 required by OAR 345-027-0020 (Mandatory Conditions in Site Certificates), OAR 345-027-
26 0023 (Site Specific Conditions), OAR 345-027-0028 (Monitoring Conditions) or OAR
27 Chapter 345, Division 26 (Construction and Operation Rules for Facilities). The conditions
28 referenced herein include conditions based on representations in the request for amendment
29 and the supporting record. The Council deems these representations to be binding
30 commitments made by the certificate holder. Also included are conditions that the Council
31 finds necessary to ensure compliance with the siting standards of OAR Chapter 345,
32 Divisions 22 and 24, or to protect public health and safety.

33 In addition to all other conditions referenced or included in this final order, the site
34 certificate holder is subject to all conditions and requirements contained in the rules of the
35 Council and in local ordinances and state law in effect on the date the amended site certificate

1 is executed.³⁸ Under ORS 469.401(2), upon a clear showing of a significant threat to the
2 public health, safety or the environment that requires application of later-adopted laws or
3 rules, the Council may require compliance with such later-adopted laws or rules.

4 The Department recognizes that many specific tasks related to the design,
5 construction, operation and retirement of the facility will be undertaken by the certificate
6 holder's agents or contractors. Nevertheless, the certificate holder is responsible for ensuring
7 that all agents and contractors comply with all provisions of the site certificate.

VII. GENERAL CONCLUSION

8 The proposed amendment would allow the changes to the design and construction of
9 the KWP as described herein. The Council finds that revisions to Conditions 2, 5, 8, 11, 13
10 through 25, 28, 32 and 92 and revisions to the *Revegetation Plan* (Attachment B, referenced
11 in Condition 81) and the *Habitat Mitigation Plan* (Attachment C, referenced in Condition 97)
12 are necessary for approval of the amendment.

13 Based on the findings and conclusions discussed above regarding the proposed
14 amendment, the Council makes the following findings:

- 15 1. The proposed Amendment #2 complies with the requirements of the Oregon
16 Energy Facility Siting statutes, ORS 469.300 to ORS 469.570 and 469.590 to
17 469.619.
- 18 2. The proposed Amendment #2 complies with the standards adopted by the Council
19 pursuant to ORS 469.501.
- 20 3. The proposed Amendment #2 complies with all other Oregon statutes and
21 administrative rules applicable to the amendment of the site certificate for the
22 Klondike III Wind Project and within the Council's jurisdiction.

23 Accordingly, the Council finds that the facility complies with the General Standard of
24 Review (OAR 345-022-0000). The Council concludes, based on a preponderance of the
25 evidence on the record, that the site certificate may be amended as requested by the certificate
26 holder, subject to the revisions recommended by the Department and set forth below.

1. The Department's Recommended Revisions

27 New text proposed by the Department shown with single underline. New text
28 proposed by KIII with concurrence by the Department is shown with double underline.
29 Deletions are shown with a strikethrough.

Revision 1

30 *Page 1, lines 6-13:*

31 The findings of fact, reasoning and conclusions of law underlying the terms and conditions of
32 this site certificate are set forth in the following documents related to the facility, which are
33 incorporated herein by this reference: (a) the Council's Final Order on the Application and (b)
34 the Council's Final Orders on Amendments #1 and #2. In interpreting this site certificate, any
35 ambiguity will be clarified by reference to the following, in order of priority: (1) this ~~First~~

³⁸ With regard to land use, the applicable local criteria are those in effect on the date the certificate holder submitted the request for amendment.

1 Second Amended Site Certificate, (2) the Final Order on Amendment #2, (3) the Final Order
2 on Amendment #1, (34) the Final Order on the Application and (45) the record of the
3 proceedings that led to the Final Orders on the Application, and Amendment #1 and
4 Amendment #2. [Amendments #1 and #2]

Explanation

5 This revision includes a reference in the site certificate to the findings of fact,
6 reasoning and conclusions in support of the present amendment. The revision establishes the
7 order of priority in which the underlying documents should be considered in resolving any
8 ambiguity. The parenthetical reference at the end of the paragraph follows standard practice
9 and provides a historical reference of when these changes were made to the site certificate.

Revision 2

10 *Page 1, lines 24-30:*

11 3. This site certificate does not address, and is not binding with respect to, matters that were
12 not addressed in the Council's Final Orders on the Application and Amendments #1 and
13 #2. Such matters include, but are not limited to: building code compliance, wage, hour and
14 other labor regulations, local government fees and charges and other design or operational
15 issues that do not relate to siting the facility (ORS 469.401(4)) and permits issued under
16 statutes and rules for which the decision on compliance has been delegated by the federal
17 government to a state agency other than the Council. 469.503(3). [Amendments #1 and #2]

Explanation

18 The revision includes the Final Order on Amendment #2 in the scope of matters
19 addressed in the site certificate.

Revision 3

20 *At page 2, lines 22-29:*

21 The energy facility is an electric power generating plant with an average electric generating
22 capacity of approximately 95 megawatts and a peak generating capacity of not more than 285
23 megawatts that produces power from wind energy. The facility consists of not more than 165
24 wind turbines, each with a peak generating capacity of not more than 2.4 megawatts. Turbines
25 are mounted on tubular steel towers. The turbine towers are about 263 feet tall at the turbine
26 hub and have an overall height of not more than 415 feet including the radius swept by the
27 turbine blades. The energy facility is described further in the Final Orders on Amendments #1
28 and #2. [Amendments #1 and #2]

Explanation

29 This revision of the facility description adds a reference to additional energy facility
30 description the Final Order on Amendment #2.

Revision 4

31 *At page 4, lines 31-33:*

32 (2) OAR 345-027-0020(2): Except as provided in OAR 345-027-0023(6), before beginning
33 construction, theThe certificate holder shall submit to the Office of Energy a legal
34 description of the site to the Department of Energy within 90 days after beginning
35 operation of the facility. The legal description required by this rule means a description of

1 metes and bounds or a description of the site by reference to a map and geographic data
2 that clearly and specifically identifies the outer boundaries that contain all parts of the
3 facility. [Amendment #2]

Explanation

4 This revision modifies mandatory condition OAR 345-027-0020(2) to conform to the
5 Council rules as revised effective May 15, 2007.

Revision 5

6 *Page 5, lines 1-13:*

7 (5) OAR 345-027-0020(5): Except as necessary for the initial survey or as otherwise allowed
8 for wind energy facilities, transmission lines or pipelines under this section, the certificate
9 holder shall not begin construction, as defined in OAR 345-001-0010, or create a clearing
10 on any part of the site until the certificate holder has construction rights on all parts of the
11 site. For the purpose of this rule, "construction rights" means the legal right to engage in
12 construction activities. For wind energy facilities, transmission lines or pipelines, if the
13 certificate holder does not have construction rights on all parts of the site, the certificate
14 holder may nevertheless begin construction, as defined in OAR 345-001-0010, or create a
15 clearing on a part of the site if the certificate holder has construction rights on that part of
16 the site and:

17 ~~—(a) The certificate holder has construction rights on that part of the site; and~~

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

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

25 [Amendment #2]

Explanation

26 This revision modifies mandatory condition OAR 345-027-0020(5) to conform to the
27 Council rules as revised effective May 15, 2007.

Revision 6

28 *Page 5, lines 25-31:*

29 (8) OAR 345-027-0020(8): Before beginning construction of the facility, the certificate holder
30 shall submit to the State of Oregon, through the Council, a bond or letter of credit, in a
31 form and amount satisfactory to the Council, ~~in an amount specified in the site certificate~~
32 to restore the site to a useful, non-hazardous condition. The certificate holder shall
33 maintain a bond or letter of credit in effect at all times until the facility has been retired.
34 The Council may specify different amounts for the bond or letter of credit during
35 construction and during operation of the facility. (*See Condition (32).*) [Amendment #2]

Explanation

36 This revision modifies mandatory condition OAR 345-027-0020(8) to conform to the
37 Council rules as revised effective May 15, 2007.

Revision 7

1 *Page 5, lines 41-44, and page 6, lines 1-2:*

2 (11) OAR 345-027-0020(11): Upon completion of construction, the certificate holder shall
3 restore vegetation to the extent practicable and shall landscape ~~portions of the site~~ all areas
4 disturbed by construction in a manner compatible with the surroundings and proposed use.
5 Upon completion of construction, the certificate holder shall ~~dispose of~~ remove all
6 temporary structures not required for facility operation and ~~dispose of~~ all timber, brush,
7 refuse and flammable or combustible material resulting from clearing of land and
8 construction of the facility. [Amendment #2]

Explanation

9 This revision modifies mandatory condition OAR 345-027-0020(11) to conform to the
10 Council rules as revised effective May 15, 2007.

Revision 8

11 *Page 6, lines 8-14:*

12 (13) OAR 345-027-0020(13): The certificate holder shall notify the ~~Office of~~
13 ~~Energy Department~~, the State Building Codes Division and the Department of Geology
14 and Mineral Industries promptly if site investigations or trenching reveal that conditions in
15 the foundation rocks differ significantly from those described in the application for a site
16 certificate. After the ~~Office Department~~ receives the notice, the Council may require the
17 certificate holder to consult with the Department of Geology and Mineral Industries and
18 the Building Codes Division and to propose mitigation actions. [Amendment #2]

Explanation

19 This revision modifies mandatory condition OAR 345-027-0020(13) to conform to the
20 Council rules as revised effective May 15, 2007.

Revision 9

21 *Page 6, lines 15-18:*

22 (14) OAR 345-027-0020(14): The certificate holder shall notify the ~~Office Department~~, the
23 State Building Codes Division and the Department of Geology and Mineral Industries
24 promptly if shear zones, artesian aquifers, deformations or clastic dikes are found at or in
25 the vicinity of the site. [Amendment #2]

Explanation

26 This revision modifies mandatory condition OAR 345-027-0020(14) to conform to the
27 Council rules as revised effective May 15, 2007.

Revision 10

28 *Page 6, lines 19-22:*

29 (15) OAR 345-027-0020(15): Before any transfer of ownership of the facility or ownership of
30 the site certificate holder, the certificate holder shall inform the ~~Office of~~
31 ~~Energy Department~~ of the proposed new owners. The requirements of OAR 345-027-0100
32 apply to any transfer of ownership that requires a transfer of the site certificate.
33 [Amendment #2]

Explanation

1 This revision modifies mandatory condition OAR 345-027-0020(15) to conform to the
2 Council rules as revised effective May 15, 2007.

Revision 11

3 *Page 6, lines 23-38:*

4 (16) OAR 345-027-0020(16): If the Council finds that the certificate holder has permanently
5 ceased construction or operation of the facility without retiring the facility according to a
6 final retirement plan approved by the Council, as described in OAR 345-027-0110, the
7 Council shall notify the certificate holder and request that the certificate holder submit a
8 proposed final retirement plan to the Office within a reasonable time not to exceed 90
9 days. If the certificate holder does not submit a proposed final retirement plan by the
10 specified date, the Council may direct the ~~Office~~Department to prepare a proposed a final
11 retirement plan for the Council's approval. Upon the Council's approval of the final
12 retirement plan, the Council may draw on the bond or letter of credit described in section
13 (8) to restore the site to a useful, non-hazardous condition according to the final retirement
14 plan, in addition to any penalties the Council may impose under OAR Chapter 345,
15 Division 29. If the amount of the bond or letter of credit is insufficient to pay the actual
16 cost of retirement, the certificate holder shall pay any additional cost necessary to restore
17 the site to a useful, non-hazardous condition. After completion of site restoration, the
18 Council shall issue an order to terminate the site certificate if the Council finds that the
19 facility has been retired according to the approved final retirement plan. [Amendment #2]

Explanation

20 This revision modifies mandatory condition OAR 345-027-0020(16) to conform to the
21 Council rules as revised effective May 15, 2007.

Revision 12

22 *Page 6, lines 38-43, and page 7, lines 1-9:*

23 (17) ~~OAR 345-027-0023(4): If the energy facility or related or supporting facility is a~~
24 ~~transmission line, the certificate holder shall restore the reception of radio and television at~~
25 ~~residences and commercial establishments in the primary reception area to the level~~
26 ~~present prior to operations of the transmission line, at no cost to residents experiencing~~
27 ~~interference resulting from the transmission line. [Condition removed by Amendment #2]~~

28 (18) OAR 345-027-0023(54): If the facility includes any high voltage transmission line under
29 Council jurisdiction:

30 (a) The certificate holder shall design, construct and operate the transmission line in
31 accordance with the requirements of the National Electrical Safety Code (American
32 National Standards Institute, Section C2, 1997 Edition); and

33 (b) The certificate holder shall develop and implement a program that provides
34 reasonable assurance that all fences, gates, cattle guards, trailers, or other objects or
35 structures of a permanent nature that could become inadvertently charged with electricity
36 are grounded or bonded throughout the life of the line.

37 [Amendment #2]

Explanation

38 This revision removes Condition 17 and modifies Condition 18 to conform to the
39 Council's amendment of OAR 345-027-0023 effective May 15, 2007.

Revision 13

1 *Page 7, lines 10-20:*

2 (19) OAR 345-027-0023(65): If the proposed energy facility is a pipeline or a transmission
3 line or has, as a related or supporting facility, a pipeline or transmission line, the Council
4 shall specify an approved corridor in the site certificate and shall allow the certificate
5 holder to construct the pipeline or transmission line anywhere within the corridor, subject
6 to the conditions of the site certificate. If the applicant has analyzed more than one
7 corridor in its application for a site certificate, the Council may, subject to the Council's
8 standards, approve more than one corridor. ~~Before beginning operation of the facility, the~~
9 ~~certificate holder shall submit to the Office a legal description of the permanent right-of-~~
10 ~~way where the applicant has built the pipeline or transmission line within an approved~~
11 ~~corridor. The site of the pipeline or transmission line subject to the site certificate is the~~
12 ~~area within the permanent right-of-way. [Amendment #2]~~

Explanation

13 This revision modifies Condition 19 to conform to the Council's amendment of OAR
14 345-027-0023 effective May 15, 2007.

Revision 14

15 *Page 7, lines 21-37:*

16 (20) OAR 345-027-0028: The following general monitoring conditions apply:
17 (a) The certificate holder shall consult with affected state agencies, local governments
18 and tribes and shall develop specific monitoring programs for impacts to resources
19 protected by the standards of ~~divisions~~Divisions 22 and 24 of this chapter and resources
20 addressed by applicable statutes, administrative rules and local ordinances. The certificate
21 holder must submit the monitoring programs to the ~~Office~~Department of Energy and
22 receive ~~Office~~Department approval before beginning construction or, as appropriate,
23 operation of the facility.
24 (b) The certificate holder shall implement the approved monitoring programs
25 described in section (a) and monitoring programs required by permitting agencies and
26 local governments.
27 (c) For each monitoring program described in sections (a) and (b), the certificate
28 holder shall have quality assurance measures approved by the ~~Office~~Department before
29 beginning construction or, as appropriate, before beginning commercial operation.
30 (d) If the certificate holder becomes aware of a significant environmental change or
31 impact attributable to the facility, the certificate holder shall, as soon as possible, submit a
32 written report to the ~~Office~~Department describing the impact on the facility and any
33 affected site certificate conditions.
34 [Amendment #2]

Explanation

35 This revision modifies Condition 20 to conform to the Council's amendment of OAR
36 345-027-0028 effective May 15, 2007.

Revision 15

37 *Page 7, lines 38-45, and page 8, lines 1-4:*

38 (21) OAR 345-026-0048: Following receipt of the site certificate, the certificate holder shall
39 implement a plan that verifies compliance with all site certificate terms and conditions and

1 applicable statutes and rules. As a part of the compliance plan, to verify compliance with
2 the requirement to begin construction by the date specified in the site certificate, the
3 certificate holder shall report promptly to the ~~Office~~Department of Energy when
4 construction begins. Construction is defined in OAR 345-001-0010. In reporting the
5 beginning of construction, the certificate holder shall describe all work on the site
6 performed before beginning construction, including work performed before the Council
7 issued the site certificate, and shall state the cost of that work. For the purpose of this
8 exhibit, "work on the site" means any work within a site or corridor, other than surveying,
9 exploration or other activities to define or characterize the site or corridor. The certificate
10 holder shall document the compliance plan and maintain it for inspection by the ~~Office of~~
11 Energy Department or the Council. [Amendment #2]

Explanation

12 This revision modifies Condition 21 to conform to the Council's amendment of OAR
13 345-026-0048 effective May 15, 2007.

Revision 16

14 *Page 8, lines 5-45, and page 9, lines 1-17:*

15 (22) OAR 345-026-0080: The certificate holder shall report according to the following
16 requirements:

17 (a) General reporting obligation for ~~non-nuclear~~energy facilities under construction or
18 operating:

19 (i) Within six months after beginning construction, and every six months
20 thereafter during construction of the energy facility and related or supporting facilities, the
21 certificate holder shall submit a semiannual construction progress report to the
22 ~~Council~~Department of Energy. In each construction progress report, the certificate holder
23 shall describe any significant changes to major milestones for construction. The certificate
24 holder shall include such information related to construction as specified in the site
25 certificate. When the reporting date coincides, the certificate holder may include the
26 construction progress report within the annual report described in this rule;

27 (ii) ~~By April 30 of each year after beginning construction, The~~the certificate
28 holder shall, ~~within 120 days after the end of each calendar year after beginning~~
29 ~~construction,~~ submit an annual report to the ~~Council~~Department addressing the subjects
30 listed in this rule. The Council ~~secretary~~Secretary and the certificate holder may, by
31 mutual agreement, change the reporting date.

32 (iii) To the extent that information required by this rule is contained in reports the
33 certificate holder submits to other state, federal or local agencies, the certificate holder
34 may submit excerpts from such other reports to satisfy this rule. The Council reserves the
35 right to request full copies of such excerpted reports.

36 (b) In the annual report, the certificate holder shall include the following information
37 for the calendar year preceding the date of the report:

38 (i) Facility Status: An overview of site conditions, the status of facilities under
39 construction, and a summary of the operating experience of facilities that are in operation.
40 In this section of the annual report, the certificate holder shall describe any unusual events,
41 such as earthquakes, extraordinary windstorms, major accidents or the like that occurred
42 during the year and that had a significant adverse impact on the facility;

43 (ii) Reliability and Efficiency of Power Production: For electric power plants;
44 ~~_____ (A) The~~the plant availability and capacity factors for the reporting year. ~~If~~The
45 certificate holder shall describe any equipment failures or plant breakdowns had a

1 significant impact on those factors, the certificate holder shall describe them and its plans
2 to minimize or eliminate ~~their~~ the recurrence of such problems;

3 ~~(iii) (B) Fuel Use: For thermal power plants:~~

4 (A) The efficiency with which the power plant converts fuel into electric
5 energy. If the fuel chargeable to power heat rate was evaluated when the facility was sited,
6 the certificate holder shall calculate efficiency using the same formula and assumptions,
7 but using actual data; and

8 ~~(B) The facility's annual hours of operation by fuel type and, every five~~
9 ~~years after beginning operation, a summary of the annual hours of operation by fuel type~~
10 ~~as described in OAR 345-024-0590(5).~~

11 ~~(iiiiv) Status of Surety Information: Documentation demonstrating that bonds or~~
12 ~~letters of credit as described in the site certificate are in full force and effect and will~~
13 ~~remain in full force and effect for the term of the next reporting period.~~

14 ~~(iv) Industry Trends: A discussion of any significant industry trends that may~~
15 ~~affect the operations of the facility;~~

16 (v) Monitoring Report: A list and description of all significant monitoring and
17 mitigation activities performed during the previous year in accordance with site certificate
18 terms and conditions, a summary of the results of those activities, and a discussion of any
19 significant changes to any monitoring or mitigation program, including the reason for any
20 such changes.

21 (vi) Compliance Report: A description of all instances of noncompliance with a
22 site certificate condition. For ease of review, the certificate holder shall, in this section of
23 the report, use numbered subparagraphs corresponding to the applicable sections of the
24 site certificate.

25 (vii) Facility Modification Report: A summary of changes to the facility that the
26 certificate holder has determined do not require a site certificate amendment in accordance
27 with OAR 345-027-0050; and.

28 (viii) Nongenerating Facility Carbon Dioxide Emissions: For nongenerating
29 facilities that emit carbon dioxide, a report of the annual fuel use by fuel type and annual
30 hours of operation of the carbon dioxide emitting equipment as described in OAR 345-
31 024-0630(4).

32 [Amendment #2]

Explanation

33 This revision modifies Condition 22 to conform to the Council's amendment of OAR
34 345-026-0080 effective May 15, 2007.

Revision 17

35 *Page 9, lines 18-21:*

36 ~~(23) OAR 345-026-0100: The certificate holder shall promptly notify the Office of Energy of~~
37 ~~any changes in major milestones for construction, decommissioning, operation or~~
38 ~~retirement schedules. Major milestones are those identified by the certificate holder in its~~
39 ~~construction, retirement or decommissioning plan. [Condition removed by Amendment #2]~~

Explanation

40 This revision removes Condition 23 to conform to the Council's repeal of OAR 345-
41 026-0100 effective May 15, 2007.

Revision 18

1 *Page 9, lines 22-28:*

2 (24) OAR 345-026-0105: The certificate holder and the ~~Office~~Department of Energy shall
3 exchange copies of all correspondence or summaries of correspondence related to
4 compliance with statutes, rules and local ordinances on which the Council determined
5 compliance, except for material withheld from public disclosure under state or federal law
6 or under Council rules. The certificate holder may submit abstracts of reports in place of
7 full reports; however, the certificate holder shall provide full copies of abstracted reports
8 and any summarized correspondence at the request of the ~~Office of Energy~~Department.
9 [Amendment #2]

Explanation

10 This revision modifies Condition 24 to conform to the Council's amendment of OAR
11 345-026-0105 effective May 15, 2007.

Revision 19

12 *Page 9, lines 29-35:*

13 (25) OAR 345-026-0170: The certificate holder shall notify the ~~Office~~Department of Energy
14 within 72 hours of any occurrence involving the facility if:
15 (a) There is an attempt by anyone to interfere with its safe operation;
16 (b) A natural event such as an earthquake, flood, tsunami or tornado, or a human-
17 caused event such as a fire or explosion affects or threatens to affect the public health and
18 safety or the environment; or
19 (c) There is any fatal injury at the facility.

20 [Amendment #2]

Explanation

21 This revision modifies Condition 25 to conform to the Council's amendment of OAR
22 345-026-0170 effective May 15, 2007.

Revision 20

23 *Page 10, lines 17-36:*

24 (28) The certificate holder shall construct a facility that includes up to 165 wind turbines
25 substantially as described in the site certificate, subject to the following restrictions on
26 turbine selection:
27 (a) For any turbine string, the certificate holder may select any combination of GE
28 1.5-megawatt or Vestas V82 1.65-megawatt wind turbines.
29 (b) For turbine strings K, L, M, N, R, S, U, V, W and X as identified in Table 1 of the
30 Final Order on Amendment #1, in addition to the turbine types listed in (a), the certificate
31 holder may select any turbine type such that the hub height does not exceed 80 meters, the
32 rotor diameter does not exceed 92.5 meters, the peak generating capacity does not exceed
33 2.4 megawatts and the maximum sound power level does not exceed 107 dBA.
34 (c) Notwithstanding the restriction described in (b) and in addition to the turbine types
35 listed in (a), the certificate holder may select any turbine type for locations K-02 as shown
36 on Figure B-1 as described in the Final Order on Amendment #1 or MHI-1 as described in
37 the Final Order on Amendment #2, such that the hub height does not exceed 80 meters,
38 the rotor diameter does not exceed 92.5 meters, the peak generating capacity does not
39 exceed 2.4 megawatts and the maximum sound power level does not exceed 110 dBA.

1 (d) Before beginning construction, the certificate holder shall identify all turbine types
2 selected for the project and provide evidence satisfactory to the Department that the
3 selected turbine types comply with this condition.

4 [Amendments #1 and #2]

5 Explanation

6 This revision modifies Condition 28 to allow construction of any size turbine within
7 the new micrositing area addressed by Amendment #2, subject to specified limitations on hub
height, rotor diameter, peak generating capacity and sound power level.

Revision 21

8 *Page 11, lines 19-46, and page 12, lines 1-22:*

9 (32) ~~Before beginning construction~~ Within 60 days following the effective date of the Second
10 Amended Site Certificate, the certificate holder shall submit to the State of Oregon
11 through the Council ~~an amended or replacement~~ bond or letter of credit in the amount
12 described herein naming the State of Oregon, acting by and through the Council, as
13 beneficiary or payee. The ~~initial~~ amended or replacement bond or letter of credit amount is
14 ~~\$1.089 million (2005 dollars)~~ \$7.825 million (2006 dollars), to be adjusted to the date of
15 issuance as described in (b), or the amount determined as described in (a). The certificate
16 holder shall adjust the amount of the bond or letter of credit on an annual basis thereafter
17 as described in (b). ~~Notwithstanding the adjustments described in (a) and (b), the~~
18 ~~minimum bond or letter of credit amount is \$500,000.~~

19 (a) The certificate holder may adjust the amount of the ~~initial~~ bond or letter of credit
20 based on the final design configuration of the facility by applying the unit costs and
21 general costs shown in Table ~~32~~ of the Final Order on Amendment #~~1~~2 to the final design
22 and calculating the financial assurance amount as described in that order, adjusted to the
23 date of issuance as described in (b) and subject to approval by the Department.

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

26 (i) Adjust the gross cost component of the ~~initial~~ bond or letter of credit amount
27 (expressed in 2006 dollars) to present value, using the U.S. Gross Domestic Product
28 Implicit Price Deflator, Chain-Weight, as published in the Oregon Department of
29 Administrative Services' "Oregon Economic and Revenue Forecast" or by any successor
30 agency (the "Index") and using the annual average index value for 200~~5~~6 dollars and the
31 quarterly index value for the date of issuance of the new bond or letter of credit. If at any
32 time the Index is no longer published, the Council shall select a comparable calculation to
33 adjust 200~~5~~6 dollars to present value.

34 (ii) ~~Adjust the estimated scrap value by an index factor derived from the Producer~~
35 ~~Price Index values, not seasonally adjusted, reported by the U.S. Department of Labor,~~
36 ~~Bureau of Labor Statistics, "Commodities: Metals and metal Products: Carbon steel scrap"~~
37 ~~(Series ID: WPU101211). Using the average monthly index value for the 12 months~~
38 ~~ending with December of the year preceding the year in which the adjustment is made as~~
39 ~~the numerator and the average monthly index value for the 12 months ending with~~
40 ~~December 2005 (277.2) as the denominator, multiply the estimated scrap value of \$149~~
41 ~~per ton (2005 dollars) by the resulting factor. If at any time the Producer Price Index~~
42 ~~Values are no longer published, the Council shall select a comparable calculation to adjust~~
43 ~~the estimated scrap value.~~

44 (iii) ~~Multiply the adjusted scrap value (ii) per ton by the number of tons used to~~
45 ~~calculate the scrap value component of the initial bond or letter of credit amount and~~
46 ~~subtract the resulting value from the adjusted gross cost (i).~~

1 (ivii) Add 1 percent of the ~~subtotal (iii)~~adjusted gross cost (i) for the adjusted
2 performance bond amount, 10 percent of the ~~subtotal (iii)~~adjusted gross cost for the
3 adjusted administration and project management costs, and ~~20~~10 percent of the ~~subtotal~~
4 ~~(iii)~~adjusted gross cost for the adjusted future developments contingency.

5 (viii) Add the ~~subtotal (iii)~~adjusted gross cost (i) to the sum of the percentages
6 (ivii) and round the resulting total to the nearest \$1,000 to determine the adjusted financial
7 assurance amount ~~for the reporting year~~.

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

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

12 (e) The certificate holder shall describe the status of the bond or letter of credit in the
13 annual report submitted to the Council under Condition (22).

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

16 [Amendments #1 and #2]

Explanation

17 This revision modifies Condition 32 to change the financial assurance amount from
18 \$1.089 million in 2005 dollars to \$7.825 million in 2006 dollars based on the estimate of site
19 restoration costs discussed herein.

20 The changes to subsection (b) remove the credit for scrap value, based on the
21 Council's current understanding that scrap value might not be available to the State at the time
22 of site restoration.

Revision 22

23 The Department recommended revisions to the Revegetation Plan, which is
24 incorporated by reference in Condition 81 of the site certificate. The revisions are shown in
25 Attachment B.

Explanation

26 The revision would change the total acres and acres of cultivated or developed land
27 temporarily affected by construction (On page B-1, in lines 6-8 of the Revegetation Plan,
28 revised November 3, 2006). The revision would remove the reference to acres of permanent
29 disturbance in footnote 2. These revisions are consistent with the increased area of temporary
30 and permanent disturbance as shown in Table 4 herein.

Revision 23

31 *Page 20, lines 5-24:*

32 (92) The certificate holder may construct turbines and other facility components within 900-
33 foot corridors having centerlines defined by the endpoints shown on Table 1 of the Final
34 Order on Amendment #1 or within the MHI-1 micrositing area described in the Final
35 Order on Amendment #2, subject to the following requirements addressing potential
36 habitat impact and subject to the requirements of Condition 102:

37 (a) The certificate holder shall not construct any facility components within areas of
38 Category 1 habitat and shall avoid temporary disturbance of Category 1 habitat.

39 (b) The certificate holder shall design and construct facility components that are the
40 minimum size needed for safe operation of the energy facility.

1 (c) To the extent possible, the certificate holder shall construct facility components in
2 the locations shown on Figure C-2 of the site certificate application.

3 (d) If the certificate holder must change the layout of facility components from what is
4 shown on Figure C-2 due to micro-siting considerations, the certificate holder shall, to the
5 extent possible, construct facility components within 300-foot corridors having centerlines
6 defined by the endpoints shown on Table 1 of the Final Order on Amendment #1 or within
7 the MHI-1 micro-siting area described in the Final Order on Amendment #2.

8 (e) The certificate holder may construct facility components outside the 300-foot
9 corridors if necessary due to micro-siting considerations, except that the certificate holder
10 shall not construct any facility components outside the areas within the 900-foot corridors
11 having centerlines defined by the endpoints shown on Table 1 of the Final Order on
12 Amendment #1 or the MHI-1 micro-siting area described in the Final Order on
13 Amendment #2 or cause any temporary disturbance outside those 900-foot corridors areas.

14 [Amendments #1 and #2]

Explanation

15 This revision modifies Condition 92 to allow construction within the new micro-siting
16 area described in Amendment #2.

Revision 24

17 The Department recommended a revision to the Habitat Mitigation Plan, which is
18 incorporated by reference in Condition 97 of the site certificate. The revision is shown in
19 Attachment C.

Explanation

20 The revision would delete the first two sentences of Section II (page C-1, lines 12-14
21 of the Habitat Mitigation Plan, revised November 3, 2006). The changes allowed under
22 Amendment #2 would increase the total acres of permanent disturbance from 71 to 72 acres
23 and the total acres of permanent disturbance within currently cultivated agricultural fields
24 from 63 to 64 acres, as shown on Table 4 herein. The reference to the total acreage affected
25 by the facility, however, is for information only and is not a necessary part of the plan, which
26 must be read in the context of the site certificate and the applicable Council orders.

VIII. ORDER

27 The Council approves Amendment #2 and issues an amended site certificate for the
28 Klondike III Wind Project, subject to the terms and conditions set forth above.

Issued this 27th day of July, 2007.

THE OREGON ENERGY FACILITY SITING COUNCIL

By: _____

David Ripma, Chair
Oregon Energy Facility Siting Council

Attachments

Attachment B: Revegetation Plan (revised)

Attachment C: Habitat Enhancement Plan (revised)

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.

Klondike III Wind Project: Revegetation Plan

[JULY 27, 2007]

1 **I. Introduction**

2 This plan describes methods and standards for restoration of areas temporarily disturbed
3 during the construction, maintenance or repair of the Klondike III Wind Project (KWP).¹ The
4 objective of revegetation is to restore the temporarily disturbed areas to pre-construction
5 condition or better. Restoration of these areas is required by the site certificate for the facility.

6 An estimated 226 acres of land will be temporarily affected during construction of the
7 facility.² Approximately 203 acres of the temporarily disturbed area is cultivated or otherwise
8 developed agricultural land and the remainder is grassland, shrub-steppe or CRP.³ The certificate
9 holder shall maintain erosion and sediment control measures put in place during construction
10 until the affected areas are restored as described in this plan and the risk of erosion has been
11 eliminated.

12 This plan has been prepared to guide the revegetation efforts. Seed mixes, planting
13 methods and weed control techniques have been developed for the project area in consultation
14 with the Oregon Department of Fish and Wildlife (ODFW). The plan specifies monitoring
15 procedures to evaluate revegetation success and recommended remediation if revegetation
16 appears unsuccessful in certain areas.

17 **II. Description of the Project Area**

18 The facility is located in Sherman County, Oregon. The project area is on private
19 agricultural land used primarily for dry land winter wheat production. Soils are typically loess
20 formations of well-drained, moderately permeable, fertile silt loams over basalt. Some areas are
21 used for livestock grazing. Depth to bedrock is generally 20 to 60 inches. The area receives
22 approximately 11 inches of precipitation annually, most of which occurs between October 1 and
23 March 31.

24 The project area is within the Deschutes-Columbia Plateau physiographic province.
25 Topography within the area is typically gently rolling to level ground with steep slope areas at
26 the northeast and southern margins of the site. Elevation ranges from 1,250 to 1,500 feet. Most of
27 the native vegetation in the project area has been modified by human activities. Very little native
28 plant area exists, occurring predominantly along the plateau margins and steep side slopes of
29 Grass Valley Canyon. Plant communities in these areas consist of sagebrush and rabbitbrush
30 dominated shrub lands and native bunchgrass grasslands, each with varying degrees of invasive
31 species present. CRP areas have been planted with a mix of native and non-native bunch grasses.

32 **III. Revegetation Methods**

33 The certificate holder shall restore areas of temporary disturbance by preparing the soil
34 and seeding using common application methods. The certificate holder shall use mulching and

¹ This plan is incorporated by reference in the site certificate for the KWP and must be understood in that context. It is not a "stand-alone" document. This plan does not contain all mitigation required of the certificate holder.

² In addition to the area permanently occupied by facility structures.

³ "CRP" is formerly cultivated land that the landowner has enrolled in the Conservation Reserve Program.

Klondike III Revegetation Plan
[JULY 27, 2007]

1 other appropriate practices to control erosion and sediment during facility construction and
2 during revegetation work. The certificate holder shall restore agricultural topsoil to pre-
3 construction condition. The certificate holder shall select the seed mix to apply based on the pre-
4 construction land use, as described below.

5 **1. Seed Planting Methods**

6 Restoration of temporarily disturbed areas should begin as soon as possible after
7 completion of facility construction, maintenance or repair activity in the area to be restored.
8 Planting should be done at the appropriate time of year based on weather conditions and the time
9 of year when ground disturbance occurs. The certificate holder shall choose planting methods
10 based on site-specific factors such as slope, erosion potential and the size of the area in need of
11 revegetation. Disturbed ground may require chemical or mechanical weed control before weeds
12 have a chance to go to seed. Two common application methods are described as follows.

13 (a) Broadcasting

14 Broadcast the seed mix at the specified application rate. Where feasible, apply half of the
15 total mix in one direction and the second half of mix in direction perpendicular to first half.
16 Apply weed free straw from a certified field or sterile straw at a rate of two tons per acre
17 immediately after applying seed. Crimp straw into the ground to a depth of two inches using a
18 crimping disc or similar device. As an alternative to crimping, a tackifier may be applied using
19 hydroseed equipment at a rate of 100 pounds per acre. Prior to mixing the tackifier, visually
20 inspect the tank for cleanliness. If remnants from previous hydroseed applications exist, wash
21 tank to remove remnants. Include a tracking dye with the tackifier to visibly aid uniform
22 application. Broadcasting should not be used if winds exceed five miles per hour.

23 (b) Drilling

24 Using an agricultural or range seed drill, drill seed at 70 percent of the recommended
25 application rate to a depth of ¼ inch or as recommended by the seed supplier. Where feasible,
26 apply half of the total mix in one direction and the second half of mix in direction perpendicular
27 to first half. If mulch has been previously applied, seed may be drilled through the mulch
28 provided the drill is capable of penetrating the straw resulting in seed-to-soil contact conducive
29 for germination.

30 **2. Seed Mix**

31 (a) Seed Mix 1 – Dry Land Wheat

32 The certificate holder shall seed temporarily disturbed agricultural areas with wheat or
33 other crop seed. The certificate holder shall consult with the landowner and farm operator to
34 determine species composition, seed and fertilizer application rates and application methods.

35 (b) Seed Mix 2 – CRP

36 The certificate holder shall seed temporarily disturbed CRP areas with a mix compatible
37 with the CRP goals. The certificate holder shall consult with ODFW and the landowner to
38 determine the species composition, application rate, use of fertilizers and application methods.

Klondike III Revegetation Plan
[JULY 27, 2007]

1 (c) Seed Mix 3 – Grassland

2 The certificate holder shall apply Seed Mix 3 to all temporarily disturbed areas that are
3 not cultivated farmland or CRP areas. The composition and application rate of Seed Mix 3 will
4 be determined in consultation with ODFW and the landowners and will be subject to the
5 approval of the Oregon Department of Energy (Department). The certificate holder shall use seed
6 provided by a reputable supplier and complying with the Oregon Seed Law. The mix should
7 contain native species selected based on relative availability and compatibility with local
8 growing conditions. Factors that will be taken into consideration are soil erosion potential, soil
9 type, seed availability and the need for using native or native-like species.

10 **IV. Monitoring**

11 **1. Monitoring Procedures**

12 In the year following each seeding, the certificate holder shall employ a qualified
13 investigator (an independent botanist or revegetation specialist) to examine all seeded grassland
14 and CRP areas to assess vegetation cover (species, structural stage, etc.) and progress toward
15 meeting the success criteria. The qualified investigator shall revisit the revegetation areas on an
16 annual basis until the certificate holder and the Department agree that the areas are trending
17 toward meeting the success criteria. Thereafter, the qualified investigator shall revisit the
18 revegetation areas every five years for the life of the KWP to assess vegetation cover and
19 success. The certificate holder shall report the investigator's findings and recommendations
20 regarding revegetation progress and success to the Department on an annual basis as part of the
21 annual report on the KWP.

22 In consultation with the ODFW, the certificate holder's qualified investigator shall
23 choose reference sites near the revegetated areas to represent the target conditions for the
24 revegetation effort. The target conditions for each revegetated area are conditions that would be
25 realistically attainable for the area. Land use patterns, soil type, local terrain and noxious weed
26 densities should be considered in selecting reference sites. It is likely that several reference sites
27 will be necessary to adequately represent the various habitat conditions within the project area.

28 Once the reference sites are chosen, they will be used for comparison during all
29 subsequent monitoring visits, unless some event (such as wildfire) significantly changes
30 vegetation conditions so that a particular reference site no longer represents a realistically
31 attainable goal for the associated revegetated area. In that case, the qualified investigator shall
32 choose a new reference site.

33 At each monitoring location, the investigator shall evaluate the following parameters
34 (both within the revegetated area and within the reference site):

- 35 • Degree of erosion due to construction activities (high, moderate or low).
- 36 • Average number of stems of desirable vegetation per square foot.

37 The investigator shall evaluate the revegetated area and the reference site separately to
38 determine revegetation success.

Klondike III Revegetation Plan
[JULY 27, 2007]

2. Success Criteria

A temporarily disturbed grassland or CRP area is successfully revegetated when the average desirable vegetation stem density within the revegetated area is greater than, or equal to, that observed in the comparable reference site. Desirable vegetation means those species included in the seed mix or native or naturalized species common to similar areas.

In each monitoring report to the Department, the certificate holder shall provide an assessment of revegetation success in grassland or CRP restoration areas. The Department may require reseeding or other corrective measures in those areas that do not meet the success criteria. The Department may exclude small areas from the reseeding requirement, if erosion from construction activities is low, if total vegetative cover (of native and non-native species together) exceeds 30% and if weed encroachment has made native seed establishment impossible.

Cultivated agricultural areas are successfully revegetated if the replanted areas achieve crop production comparable to adjacent non-disturbed cultivated areas. The certificate holder shall consult with the landowner or farmer to determine whether these areas have been successfully revegetated and shall report to the Department on the success of revegetation in these areas.

V. Amendment of the Plan

This Revegetation Plan may be amended from time to time by agreement of the certificate holder and the Oregon Energy Facility Siting Council ("Council"). Such amendments may be made without amendment of the site certificate. The Council authorizes the Department to agree to amendments to this plan. The Department shall notify the Council of all amendments, and the Council retains the authority to approve, reject or modify any amendment of this plan agreed to by the Department.

Klondike III Wind Project: Habitat Mitigation Plan
[JULY 27, 2007]

1 **I. Introduction**

2 This plan describes methods and standards for enhancement of an area of land near the
3 Klondike III Wind Project (KWP) to mitigate for the permanent impacts of the KWP on wildlife
4 habitat.¹ The certificate holder shall enhance the mitigation site as described in this plan and shall
5 place the site into a conservation easement for the life of the KWP facility. The objective of the
6 enhancement methods is to improve the habitat value of the mitigation area and to protect the
7 area for wildlife use for the life of the facility.

8 This plan has been prepared to guide the habitat enhancement efforts. The plan specifies
9 monitoring procedures to evaluate enhancement success and recommended remediation if
10 enhancement is unsuccessful in any part of the mitigation site.

11 **II. Description of the Permanent Impacts**

12 The KWP facility would occupy approximately 8.5 acres of higher-value habitat, based
13 on a worst-case estimate. The actual area of each habitat category that the KWP will permanently
14 occupy will depend on the final design layout of the facility after consideration of micrositing
15 factors. The area of permanent impact includes habitat in Categories 2, 3 and 4.

16 Data collected at other wind energy facilities indicate that the operation of wind turbines
17 may adversely affect the quality of nearby habitat that is important or essential for grassland
18 avian species. Conducting a study at the KWP to determine whether operation of the facility will
19 have a displacement effect on grassland birds would take several years. If the study concluded
20 that an adverse impact had occurred, additional mitigation would be needed. In lieu of
21 conducting a multi-year study, the certificate holder will provide additional mitigation, based on
22 the assumed likelihood that operation of the KWP would reduce the quality of nearby habitat that
23 is important or essential for grassland bird species. The affected habitat near the KWP wind
24 turbines includes habitat in Categories 2 and 3.

25 As defined by the fish and wildlife habitat mitigation goals and standards of the Oregon
26 Department of Fish and Wildlife (ODFW), the affected habitat and corresponding mitigation
27 goals are as follows:

- 28 • **Category 2:** essential habitat for a fish or wildlife species, population, or unique
29 assemblage of species that is limited either on a physiographic province or site-
30 specific basis depending on the individual species, population or unique
31 assemblage.

32 **Mitigation Goal:** no net loss of either habitat quantity or quality and provision of
33 a net benefit of habitat quantity or quality.

¹ This plan is incorporated by reference in the site certificate for the KWP and must be understood in that context. It is not a "stand-alone" document. This plan does not contain all mitigation required of the certificate holder.

Klondike III Habitat Mitigation Plan
[JULY 27, 2007]

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

Mitigation Goal: no net loss of either habitat quantity or quality.

- **Category 4:** important habitat for fish and wildlife species.

Mitigation Goal: no net loss in either existing habitat quantity or quality.

III. Calculation of Mitigation Area

The area that is needed to mitigate for the amount of higher-value habitat occupied by KWP turbines and related facilities is determined by the “footprint” of the KWP within each habitat category. The amount of additional area needed to mitigate for a displacement effect that is uncertain cannot be precisely calculated. To determine a reasonable area for displacement mitigation, a rough calculation of potential displacement impact was done by assuming a 50-percent reduction in use by grassland birds within 50 meters of wind turbines.² It was also assumed that grassland birds use Conservation Reserve Program (CRP) land at a rate that is 50-percent of their use of native grassland and upland tree habitat (and therefore that the amount of mitigation area should be half as much for CRP displacement as for native grassland displacement). It was further assumed that the final design locations of wind turbines within the micro-siting corridors would be such that the maximum area of native grassland would be affected (the “worst case”). For both footprint and displacement impacts within Category 2 habitat, the mitigation area was calculated on a 2:1 ratio to meet the ODFW goal of a “net benefit of habitat quantity or quality.” The area of impact within each affected habitat category and the corresponding mitigation area for each category are as follows:

Category 2

Footprint impacts: 0.7 acres

Displacement impacts: 2.9 acres

Mitigation area: 3.6 acres x 2 = 7.2 acres

Category 3 (grassland and upland tree habitat)

Footprint impacts: 0.5 acres

Displacement impacts: 2.7 acres

Mitigation area: 3.2 acres

Category 3 (CRP)

Footprint impacts: 7.3 acres

Displacement impacts: 24.6 acres

Mitigation area: $(7.3 + (50\% \times 24.6)) = 19.6$ acres

Category 4

Footprint impacts: 0.1 acres

Displacement impacts: 0 acres

Mitigation area: 0.1 acres

Total mitigation area (rounded): 30 acres

² The method of determining a reasonable mitigation area as described in this plan is not intended to be a precise formula or a precedent for determining appropriate mitigation for any other facility.

Klondike III Habitat Mitigation Plan
[JULY 27, 2007]

1 The rough calculation of potential displacement impact described above was based in part
2 on data collected at the Stateline Wind Project and reported in the *Stateline Wind Project*
3 *Wildlife Monitoring Final Report, July 2001 - December 2003* (2003 report). Additional data
4 will be collected at Stateline in 2006 and (if any Stateline 3 turbines are built) in 2010. If analysis
5 of this additional data demonstrates a statistically significant displacement effect on grassland
6 bird species that is greater than the displacement effect described in the 2003 report, then the
7 certificate holder shall assume that the Klondike III facility is having a greater displacement
8 effect on grassland species than was assumed when the site certificate was issued and shall
9 propose additional mitigation. The Department shall recommend appropriate mitigation to the
10 Council, and the certificate holder shall implement mitigation as approved by the Council.

11 **IV. Description of the Mitigation Site**

12 The certificate holder shall select a 30-acre mitigation site in proximity to the facility
13 where habitat enhancement is feasible. The certificate holder shall determine the final location of
14 the mitigation area consistent with this plan in consultation with ODFW and the affected
15 landowners and subject to the approval of the Oregon Department of Energy (Department). The
16 certificate holder shall acquire the legal right to create, maintain and protect the habitat
17 mitigation area for the life of the facility by means of an outright purchase, conservation
18 easement or similar conveyance and shall provide a copy of the documentation to the
19 Department.

20 **V. Habitat Enhancement Methods**

21 The goal of habitat enhancement is to improve the habitat quality of the mitigation site to
22 achieve, over time, a Category 2 quality over most, if not all, of the site. The mitigation site may
23 include land that has been managed under a CRP contract, which may previously have been
24 planted with non-native species, including intermediate wheatgrass (*Agropyron intermedium*)
25 and crested wheatgrass (*Agropyron cristatum*). It is common to find non-native species such as
26 cheat grass between the planted grasses on CRP land. The goal of habitat enhancement is to
27 diversify the vegetation on the mitigation site to provide long-term, structurally mature,
28 functional grassland habitat.

29 If the selected mitigation site includes CRP land, the certificate holder will work with the
30 Farm Service Agency (FSA) and the landowner to develop habitat improvement measures for the
31 site that would benefit wildlife. The certificate holder would consult with the FSA before
32 performing any work on land under a CRP contract to ensure consistency with the intent of the
33 CRP contract.

34 Weed control on the mitigation site will contribute to lessening noxious weed expansion
35 on the site and on any nearby grassland, CRP or cultivated agricultural land and would result in
36 lessening competition to the desirable seeded and naturalized vegetation as recovery progresses.
37 The enhancement measures would proceed in phases. Before or during construction of the KWP,
38 the certificate holder shall begin the enhancement measures. The first phase is to clear non-native
39 species and weeds through a combination of spraying and mowing, followed by planting with
40 desirable grasses, forbs and woody shrubs. After the new vegetation is established, the quality of
41 the habitat will be maintained for the life of the KWP by continued weed control, fire control and
42 reseeded as necessary. The certificate holder shall repeat enhancement measures as necessary to
43 meet the success criteria. The following steps summarize the process:

Klondike III Habitat Mitigation Plan
[JULY 27, 2007]

- 1) Herbicide application. Herbicides would be sprayed on existing vegetation and newly emerging weeds to prevent them from seeding and spreading. If Roundup is used instead of herbicides to prevent the build up of herbicide residue, it will be sprayed early and often (3 times) during the growing season. Alternating strips of CRP would be prepared for seeding with native-like species, and the remaining areas would be left in place to reduce the potential for wind erosion. In time, desirable plant seed sources in the new strips would infiltrate into the non-native strips to increase the overall species diversity.
- 2) Seeding and Planting. Native-like grass and forbs will be planted in the fall or early winter, so that seeds can soak up moisture during the winter. The mitigation seed mix will be determined in consultation with the landowner and ODFW. A no-till drill would be used for seeding. The no-till drill uses a series of smaller disks to create divots in the ground, and then plants the seeds in these divots with a seeding tube. The no-till drill does not require that site be tilled or disked prior to seeding. The drill would be used in several directions to mask the appearance of row crops and provide a more natural “bunchgrass” appearance over time. The certificate holder shall consult with ODFW regarding species of woody shrubs appropriate for the site. Such species could be included in the seed mix or small plants could be planted.
- 3) Continued Weed Control. After grasses have established, weed control methods would continue during first growing season and as needed thereafter (on both seeded and non-seeded strips). Weeds would be controlled with herbicides during the first year, which can reduce persistent weeds after seeding. Hand-pulling weeds can also be very effective for small areas but would be limited to noxious weeds listed by Sherman County. Spot-spraying can be used instead of total area spray to protect locations where young desirable forbs that may be growing.
- 4) Fire Control. The certificate holder will require the operations contractor to be the responsible party for wildfire suppression on the mitigation site for the life of the KWP.

VI. Monitoring

1. Monitoring Procedures

In the year following the first seeding and continuing annually thereafter until the success criteria have been met, the certificate holder shall hire a qualified investigator (an independent botanist or revegetation specialist) to examine all seeded and planted areas to assess vegetation cover (species, structural stage, etc.) and progress toward meeting the success criteria. The qualified investigator shall revisit the mitigation area on an annual basis until the certificate holder and the Department agree that the area is trending toward meeting the success criteria. Thereafter, the qualified investigator shall revisit the mitigation area every five years for the life of the KWP to assess vegetation cover and success. The certificate holder shall report the investigator’s findings and recommendations regarding habitat mitigation progress and success to the Department on an annual basis as part of the annual report on the KWP.

2. Success Criteria

Areas within the mitigation site are successfully revegetated when total canopy cover of all vegetation exceeds 30 percent and at least 25 percent of the ground surface is covered by desirable species. Desirable species are native species or desirable non-native species in the

Klondike III Habitat Mitigation Plan
[JULY 27, 2007]

1 mitigation seed mix. Successful “enhancement” of the mitigation site means that a Category 2
2 habitat quality exists over at least 80 percent of the mitigation area.

3 After predominantly desirable vegetation has been established, the investigator shall
4 verify, during subsequent visits, that the plant communities within the mitigation site continue to
5 meet the success criteria for revegetation. In addition, the investigator, in consultation with
6 ODFW, shall evaluate the percentage of the mitigation site that has been enhanced to a Category
7 2 quality.

8 If all or part of the habitat within the site falls below the revegetation or enhancement
9 success criteria levels, the investigator shall recommend corrective measures. The Department
10 may require reseeding or other corrective measures in those areas that do not meet the success
11 criteria. The Department may exclude small areas from the reseeding requirement where the
12 potential for erosion is low and if total vegetative cover (of native and non-native species
13 together) exceeds 30 percent.

14 **VII. Amendment of the Plan**

15 This Habitat Mitigation Plan may be amended from time to time by agreement of the
16 certificate holder and the Oregon Energy Facility Siting Council (“Council”). Such amendments
17 may be made without amendment of the site certificate. The Council authorizes the Department
18 to agree to amendments to this plan. The Department shall notify the Council of all amendments,
19 and the Council retains the authority to approve, reject or modify any amendment of this plan
20 agreed to by the Department.