KWPAMD1Doc1

FIRST REQUEST FOR AMENDMENT TO THE KLONDIKE III WIND PROJECT

ORIGINAL

Prepared for

PPM ENERGY, INC.

Prepared by

David Evans and Associates, Inc.

July 2006

DAVID EVANS AND ASSOCIATES INC.

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INTRODUCTION

Pursuant to OAR 345-027-0030 and OAR 345-027-0050(1), Klondike Wind Power III LLC (KWP), a wholly-owned subsidiary of PPM Energy, Inc., the holder of the Site Certificate for the Klondike III Wind Project, requests to amend the Site Certificate to:

1. Reconfigure the alignment of some turbine strings and roads; add an alternate O&M building location; and add temporary disturbance resulting from crane paths, underground collector system, and staging areas, both within and outside of those areas currently authorized for temporary disturbance in the Site Certificate;

2. Add turbines up to 2.4 MW in capacity and up to 110 dBA in sound power level;

3. Increase generating capacity to 283 MW; and

4. Modify Site Certificate Conditions 28, 31, 48, 84, and 92 consistent with the above changes.

These proposed changes to the Klondike III Wind Project are described in greater detail in Section 1(c), below, and are further addressed below in accordance with the requirements set forth in each applicable OAR.

OAR 345-027-0050(1) requires that a request for an amendment must conform to the requirements of OAR 345-027-0060, which sets forth the required contents of a request to amend a site certificate. The discussion below provides the information required by OAR 345-027-0060.

SECTION 1 INFORMATION REQUIRED PURSUANT TO OAR 345-027-0060(1)

(a) Certificate Holder information

Name and mailing address of the Certificate Holder:

Klondike Wind Power III LLC
Attn: Jesse Gronner
1125 NW Couch St. Suite 700
Portland, OR 97209
(503) 796-7045

Name, mailing address, and telephone number of individual responsible for submitting the request:

Klondike Wind Power III LLC
Attn: Jesse Gronner
1125 NW Couch St. Suite 700
Portland, OR 97209
(503) 796-7045

(b) Description of the facility

The proposed facility, referred to as the Klondike III Wind Project, is located in northern Sherman County, and is generally described in the Application for Site Certificate dated May 2005. As currently permitted, the project will generate up to 273 MW of power with up to 165 turbines, and will connect to the grid at BPA's 230-kV Klondike Schoolhouse-John Day transmission line.

(c) Description and analysis of the proposed change

OAR 345-027-0060(1)(c) requires that an amendment request include "[a] detailed description of the proposed change and the Certificate Holder's analysis of the proposed change under the criteria of OAR 345-027-0050(1)." The Certificate Holder is requesting the following changes to the Site Certificate:

(i) Change of Project Configuration Outside of Site Boundary (micro-siting corridors)

The Certificate Holder requests to reconfigure some turbine strings and access roads. No turbine will be located outside of the 900-foot micro-siting corridor described in the current Site Certificate. The majority of road realignment will also be within the existing micro-siting corridor. However, 7.1 acres of additional permanent impact in agricultural areas will occur as a result of the road realignment outside the currently authorized site boundary, as shown on figures C-2A and C-2B. An alternate O&M building, located south of the Webfoot intersection, may be constructed at the project. This would permanently impact approximately 3 acres of land, in lieu of the approximately 5-acre O&M/substation site, north of the road, authorized by the Site Certificate.

Moving cranes between turbine strings along crane paths will cause temporary disturbance to approximately 42 acres outside the micro-siting corridors. Following use, these areas will be restored to their existing condition.

The underground collector system will occupy about 17 acres of land outside of the existing site boundary. These impacts will be temporary, and the disturbed areas will be restored to their existing condition following installation of the collector system.

Additional temporary disturbance of approximately 61 acres will result from staging areas outside of the currently authorized micro-siting corridor.

(ii) Additional Turbine

Due to the potential lack of availability of the turbine types currently authorized in the Site Certificate as a result of industry-wide supply and demand issues, an additional turbine type, generating up to 2.4 MW of power, may be used at the Klondike III project. Hub height for this new turbine type is 80 meters, rotor diameter is up to 92.5 meters, and overall height, including blades, is 126 meters.

Figure C-3A shows the potential layout using a combination of turbine types, including turbines not evaluated in the ASC, with a maximum installed capacity of approximately 283 MW; Figure C-3B shows the project layout with the maximum number of turbines (165 as authorized by Site Certificate) – a combination of 1.5 MW and/or 1.65 MW machines.

(iii) Increase in Generating Capacity

With the additional turbine type, the Certificate Holder requests an increase in generating capacity from 273 MW to 283 MW.

(iv) Change of Project Configuration within the Site Boundary (micro-siting corridors)

Within the site boundary, the Certificate Holder requests that up to 12 miles of above ground collector system be authorized, rather than 5.5 miles. Final geotechnical information and electrical engineering considerations have resulted in the need to construct a larger portion of the underground collector system aboveground.

(v) Change to Site Certificate Conditions

The Certificate Holder's request for modification of certain Site Certificate conditions is summarized below. The specific language for the amended conditions is proffered in Attachment 1.

Pursuant to Condition **(28)** of the Site Certificate, the Certificate Holder "shall construct a facility substantially as described in the site certificate and may select one of two turbine types: the GE 1.5-megawatt wind turbine or the Vestas V82 1.65-megawatt wind turbine."

The Certificate Holder requests the ability to select an additional turbine type, with generating capacity of up to 2.4 MW, a 92.5-meter rotor diameter, and up to an 80-meter hub height.

Pursuant to Condition **(31)** of the Site Certificate, "the Certificate Holder shall provide to the Department a detailed map of the proposed facility, showing the final locations where facility components are proposed to be built in relation to the 300-foot and 900-foot corridors shown on Figures P-1 through P-6 of the site certificate application (as revised March 1, 2006). In accordance with Condition (2), the Certificate Holder must submit a legal description of the site to the Department. For the purposes of this site certificate, the term "legal description" means a description of location by reference to a map and geographic data that clearly and specifically identifies the physical location of all parts of the facility. Notwithstanding OAR 345-027-0020(2), for the purposes of this site certificate, construction of parts of a wind facility within micro-siting corridors is comparable to construction of pipelines or transmission lines within Council-approved corridors as described in OAR 345-027-0023(6). Before beginning operation of

the facility, the Certificate Holder shall submit to the Department a legal description for those parts of the facility constructed within micro-siting corridors. The final site of the facility includes the final turbine site corridors and other facility components as described in the final order on the site certificate application and in this site certificate."

The Certificate Holder requests that this condition be modified to take into account the revised layouts as shown on the revised Figures included with Exhibit P that are part of this First Request for Amendment, and further modified such that the final site of the facility includes the final turbine site corridors and other facility components, as described in the final order on this First Request for Amendment, as opposed to the final order on the site certificate application and in the original site certificate.

Pursuant to Condition **(48)** of the Site Certificate, "the Certificate Holder shall provide to the Department a map showing the final design locations of all components of the facility and areas that would be temporarily disturbed during construction and also showing the areas that Archaeological Investigations Northwest, Inc. (AINW) surveyed in 2005, as described in the site certificate application. The Certificate Holder shall hire qualified personnel to conduct field investigation of all areas of permanent or temporary disturbance that AINW did not previously survey and shall provide a written report of the field investigation to the Department. If any significant historic, cultural, or archaeological resources are found during the field investigation, the Certificate Holder shall ensure that construction and operation of the facility will have no impact on the resources. The Certificate Holder shall instruct all construction personnel to avoid the areas where the resources were found and shall implement other appropriate measures to protect the resources."

The Certificate Holder requests that this condition be modified to take into account the additional areas surveyed by AINW in 2006, as described in this First Request for Amendment.

Pursuant to Condition **(84)** "the Certificate Holder shall install the 34.5-kV collector system underground to the extent practical. Where geotechnical conditions or other engineering considerations require, the Certificate Holder may install segments of the collector system aboveground in developed or agricultural areas that are Category 6 habitat, but the total length of aboveground segments must not exceed 5.5 miles. The Certificate Holder shall construct aboveground segments of the collector system using single or double circuit monopole design as described in the site certificate application and shall not locate any aboveground segments within 200 feet of any existing residence."

After reviewing geotechnical and engineering considerations related to the collector system, the Certificate Holder requests that up to 12 miles of the collector system be authorized to be constructed aboveground.

Pursuant to Condition **(92)** "the Certificate Holder may construct turbines and other facility components within the 900-foot corridors shown on Figures P-1 through P-6 of the site certificate application (as revised March 1, 2006), subject to the following requirements addressing potential habitat impact:

(a) The Certificate Holder shall not construct any facility components within areas of Category 1 habitat and shall avoid temporary disturbance of Category 1 habitat.

(b) The Certificate Holder shall design and construct facility components that are the minimum size needed for safe operation of the energy facility.

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

(d) If the Certificate Holder must change the layout of facility components from what is shown on Figure C-2 due to micro-siting considerations, the Certificate Holder shall, to the extent possible, construct facility components within the 300-foot corridors shown on Figures P-1 through P-6 of the site certificate application (as revised March 1, 2006).

(e) The Certificate Holder may construct facility components outside the 300-foot corridors if necessary due to micro-siting considerations, except that the Certificate Holder shall not construct any facility components outside the 900-foot corridors shown on Figures P-1 through P-6 of the site certificate application (as revised March 1, 2006) or cause any temporary disturbance outside those 900-foot corridors.

The Certificate Holder requests that this condition be modified to take into account the revised layouts as shown on the revised Figures C-2A, C-2B, and those included with Exhibit P that are part of this First Request for Amendment.

(vi) Legal Basis for Amendment Request

Under OAR 345-027-0050(1), a site certificate amendment request is required if a site Certificate Holder proposes to change the site boundary or otherwise to design, construct, operate, or retire a facility in a manner different from the description in the site certificate and the proposed change meets one of the four criteria, as discussed below.

> *"(a) Could result in a significant adverse impact that the Council did not evaluate and address in the final order granting a site certificate affecting*

any resource protected by applicable standards in divisions 22 and 24 of this chapter;"

The changes proposed by the applicant expand the site boundary and may have an adverse impact on Division 22 resources that the Council did not already evaluate and address in the final order granting the Site Certificate, including soils; land use; fish and wildlife habitat; threatened and endangered species; scenic and aesthetic values; and historic, cultural, and archaeological resources.

The request for amendment is not expected to result in adverse impacts for the remaining Division 22 resources that the Council did not already evaluate and address in the final order granting the Site Certificate, including protected areas, recreation, public services, and waste minimization. Further, this First Request for Amendment is not expected to result in adverse impacts with regard to applicable standards in Division 24 (OAR 345-024-0010, -0015) that the Council did not already evaluate and address in the final order granting the Site Certificate.

"(b) Could result in a significant adverse impact that the Council did not evaluate and address in the final order granting a site certificate affecting geographic areas or human, animal or plant populations;"

The requested amendment would increase both permanent and temporary impacts outside the site boundary currently authorized by the Site Certificate. These changes may affect geographic areas, human, animal, or plant populations.

"(c) Could impair the Certificate Holder's ability to comply with a site certificate condition; or"

The amendment requested by the Certificate Holder would potentially impair the Certificate Holder's ability to comply with site certificate conditions 28, 31, 48, 84, and 92. The request to amend these conditions is discussed above and in Attachment 1.

"(d) Could require a new condition or change to a condition in the site certificate."

As noted above, the Certificate Holder is requesting changes to five of the conditions in the current Site Certificate.

(d) Proposed changes to Site Certificate

OAR 345-027-0060 requires that a request to amend a site certificate must include "[t]he specific language of the site certificate, including affected conditions, that the Certificate Holder proposes to change, add or delete by an amendment."

Attachment 1 to this First Request for Amendment is a "redline" of the Site Certificate, showing the specific proposed changes.

(e) Relevant Division 22, 23, and 24 standards

OAR 345-027-0060(1)(e) requires that this Request to Amend the Site Certificate include "[a] list of the standards of Divisions 22, 23 and 24 of this chapter relevant to the proposed change."

Division 22 - As discussed above, the Certificate Holder is requesting to expand the site boundary for a number of project elements. Therefore, all Division 22 standards for siting non-nuclear energy facilities are relevant to this amendment request.

Division 23 - The Division 23 standards apply only to non-generating facilities and are therefore not relevant to this amendment request.

Division 24 - OAR 345-024-0010 and 345-024-0015 apply to wind energy facilities and are potentially relevant to this amendment request.

(f) Analysis of compliance with ORS 469, Council rules, and applicable state and local laws, rules, and ordinances

OAR 345-027-0060(1)(f) requires that this First Request for Amendment include:

> "An analysis of whether the facility, with the proposed change, would comply with the requirements of ORS Chapter 469, applicable Council rules, and applicable state and local laws, rules and ordinances if the Council amends the site certificate as requested. For the purpose of this rule, a law, rule or ordinance is 'applicable' if the Council would apply or consider the law, rule or ordinance under OAR 345-027-0070(9)."

OAR 345-027-0070(9) provides:

> "In making a decision to grant or deny issuance of an amended site certificate, the Council shall apply the applicable substantive criteria, as described in OAR 345-022-0030, in effect on the date the Certificate Holder submitted the request for amendment and all other state statutes, administrative rules, and local government ordinances in effect on the date the Council makes its decision."

The Certificate Holder's compliance with ORS 468, applicable Council rules (including those contained in OAR 354-022 and 345-024), and applicable state and local laws, rules, and ordinances is addressed in Attachment 2.

(g) Updated list of property owners

OAR 345-027-0060(1)(g) requires for an amendment to change the site boundary, "an updated list of the owners of property located within or adjacent to the site of the facility, as described in OAR 345-021-0010(1)(f)."

An updated list of property owners is included as Attachment 4.

SECTION 2 INFORMATION REQUIRED PURSUANT TO OAR 345-027-0060(2)

In a request to amend a site certificate, the Certificate Holder shall provide information described in applicable subsections of OAR 234-021-0010(1) in effect as of the date of the request.

Applicable subsections of OAR 345-027-0010(1) include:

- OAR 345-027-0010(1)(d)
- OAR 345-027-0010(1)(i)
- OAR 345-027-0010(1)(k)
- OAR 345-027-0010(1)(p)
- OAR 345-027-0010(1)(q)
- OAR 345-027-0010(1)(r)
- OAR 345-027-0010(1)(s)
- OAR 345-027-0010(1)(w)
- OAR 345-027-0010(1)(x)

Information related to the proposed changes is contained in exhibits included with this First Request for Amendment as Attachment 3.

AFFIDAVIT OF AUTHENTICITY

STATE OF OREGON,)
) ss.
County of Multnomah,)

I, Donald Furman, being first duly sworn, depose and say as follows:

1. I am Senior Vice President of PPM Energy, Inc., which is the sole Member and Manager of Klondike Wind Power III LLC, and I am authorized to act on behalf of Klondike Wind Power III LLC.

2. Klondike Wind Power III LLC is submitting this First Request for Amendment to the Site Certificate for the Klondike III Wind Project. To my best knowledge and belief, the information in this First Request for Amendment is true and accurate.

KLONDIKE WIND POWER III LLC

T.N.

By: _____
Donald Furman, Senior Vice President
PPM Energy, Inc., Member and Manager of
Klondike Wind Power III LLC

SUBSCRIBED AND SWORN TO before me this 28th day of July, 2006.

OFFICIAL SEAL
JULIE L HENSEL
NOTARY PUBLIC-OREGON
COMMISSION NO. 376087
MY COMMISSION EXPIRES JAN. 8, 2008

Julie L. Hensel
Notary Public for Oregon
My Commission Expires: Jan 8 2008

Klondike III Wind Project
Amendment 1
Figure C-2A
Micro-Siting Corridors

Emigrant Springs Rd
Medler Ln
N Klondike Rd
Not Leased
Dehler Rd
Beacon Rd
Klondike Ln
McDonald Ferry Ln
Sandon Rd
Not Leased
Gosson Ln
Hwy 206
Smith Ln

Legend

- Additional Micro-Siting Corridor
- Micro-Siting Corridor - 900 Ft (already permitted)
- Proposed Habitat Mitigation Area
- Lease Boundary

0 0.5 1 2 Miles

p:/ppme00000001/0600info/gs/arcmap/figures_0706/fig_c2a_microsite_072146.mxd July 24, 2006

Klondike III Wind Project
Amendment 1
Figure C-2B
Amended Project Components

Emigrant Springs Rd
Medler Ln
N Klondike Rd
Not Leased
Dehler Rd
Beacon Rd
Klondike Ln
McDonald Ferry Ln
Sandon Rd
Gosson Ln
Not Leased
Smith Ln
Hwy 206

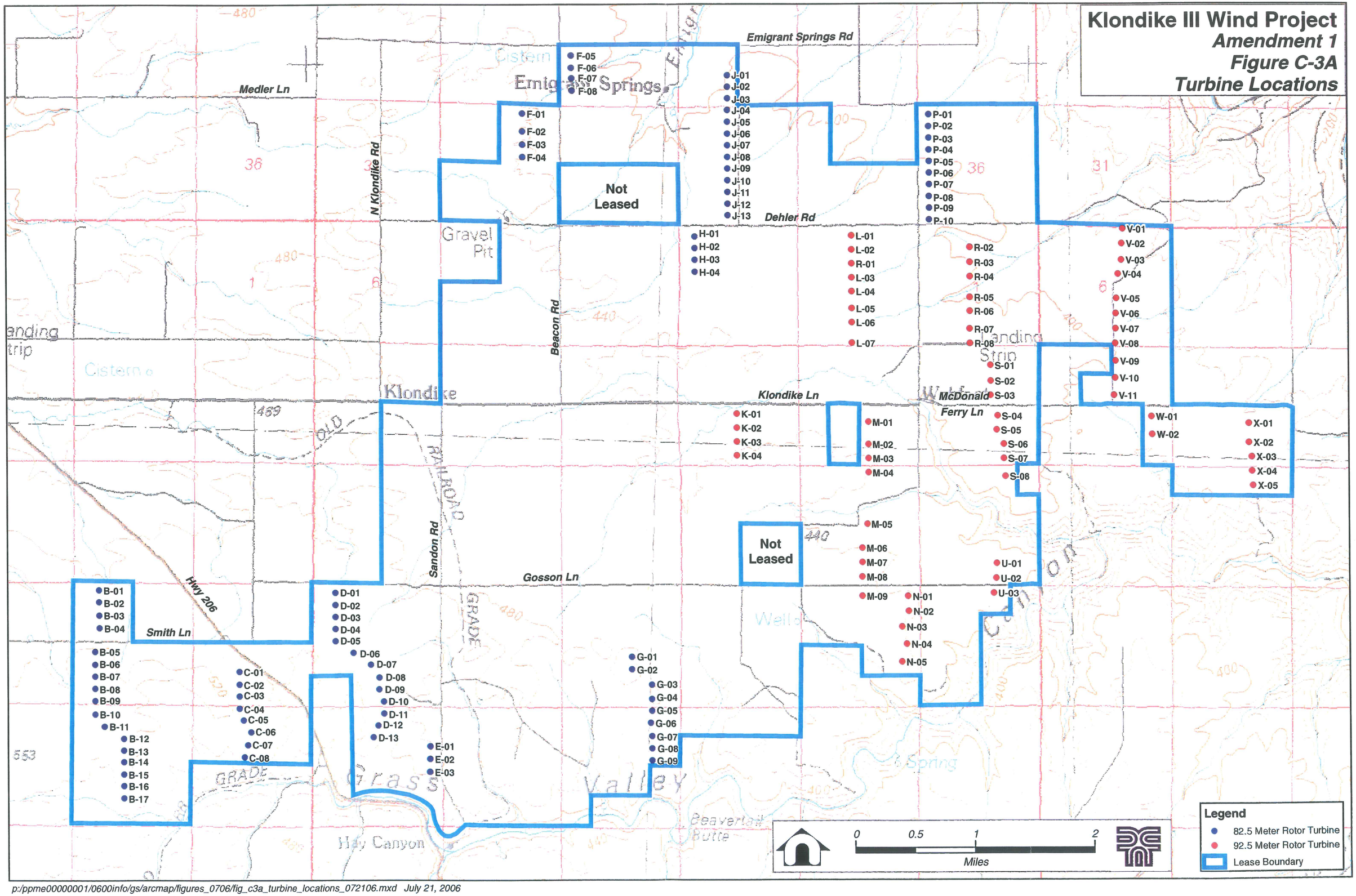
Legend

- 82.5 Meter Rotor Turbines
- 92.5 Meter Rotor Turbines
- Proposed Met Tower
- Proposed Overhead T-line
- Proposed Underground Collector
- Crane Path
- Proposed New Road
- Already Permitted Road (KII)
- Existing Road
- Existing Road Requiring Widening Upgrade
- Proposed O&M Facility
- Alternative O&M Facility
- Existing O&M Facility
- Proposed Substation
- Existing Substation
- Proposed Laydown Area
- Proposed Habitat Mitigation Area
- Lease Boundary

0 0.5 1 2
Miles

p:/ppme00000001/0600info/gs/arcmap/figures_0706/fig_c2b_proj_comp_073006.mxd July 30, 2006

Klondike III Wind Project
Amendment 1
Figure C-3A
Turbine Locations



p:/ppme00000001/0600info/gs/arcmap/figures_0706/fig_c3a_turbine_locations_072106.mxd July 21, 2006

Klondike III Wind Project
Amendment 1
Figure C-3B
Permitted Turbine Locations

Emigrant Springs Rd
Medler Ln
N Klondike Rd
Beacon Rd
Dehler Rd
Gravel Pit
Klondike
Klondike Ln
McDonald Ferry Ln
Sandon Rd
Gosson Ln
Smith Ln
Hwy 206
Grass Valley
Hay Canyon
RAILROAD GRADE

Wpt1 Wpt2 Wpt3 Wpt4 Wpt5 Wpt6 Wpt7 Wpt8 Wpt9 Wpt10 Wpt11 Wpt12 Wpt13 Wpt14 Wpt15 Wpt16 Wpt17
Wpt18 Wpt19 Wpt20 Wpt21 Wpt22 Wpt23 Wpt24 Wpt25
Wpt26 Wpt27 Wpt28 Wpt29 Wpt30
Wpt31 Wpt32 Wpt33 Wpt34 Wpt35 Wpt36 Wpt37
Wpt38 Wpt39 Wpt40
Wpt41 Wpt42 Wpt43 Wpt44 Wpt45 Wpt46 Wpt47 Wpt48 Wpt49
Wpt50 Wpt51 Wpt52 Wpt53 Wpt54 Wpt55 Wpt56 Wpt57
Not Leased
Wpt58 Wpt59 Wpt60 Wpt61 Wpt62 Wpt63 Wpt64 Wpt65 Wpt66 Wpt67 Wpt68 Wpt69 Wpt70 Wpt71
Wpt72 Wpt73 Wpt74 Wpt75
Wpt76 Wpt77 Wpt78 Wpt79 Wpt80 Wpt81 Wpt82 Wpt83 Wpt84
Wpt85 Wpt86 Wpt87 Wpt88 Wpt89 Wpt90 Wpt91 Wpt92 Wpt93 Wpt94
Wpt95 Wpt96 Wpt97 Wpt98 Wpt99 Wpt100 Wpt101 Wpt102
Wpt103 Wpt104 Wpt105 Wpt106 Wpt107 Wpt108 Wpt109 Wpt110 Wpt111 Wpt112 Wpt113 Wpt114 Wpt115 Wpt116
Wpt117 Wpt118
Wpt119 Wpt120 Wpt121 Wpt122 Wpt123 Wpt124 Wpt125
Wpt126 Wpt127 Wpt128 Wpt129 Wpt130 Wpt131 Wpt132 Wpt133 Wpt134 Wpt135
Wpt136 Wpt137 Wpt138 Wpt139 Wpt140 Wpt141 Wpt142 Wpt143 Wpt144 Wpt145 Wpt146 Wpt147 Wpt148 Wpt149
Wpt150 Wpt151 Wpt152 Wpt153 Wpt154 Wpt155 Wpt156
Wpt157 Wpt158 Wpt159 Wpt160 Wpt161 Wpt162
Wpt163 Wpt164 Wpt165
Not Leased

0 0.5 1 2 Miles

Legend

Type

- 82.5 Meter Rotor Turbine (already permitted)
- Lease Boundary

p:/ppme00000001/0600info/gs/arcmap/figures_0706/fig_c3b_permitted_turbine_locations_073006.mxd July 30, 2006

ATTACHMENT 1

"REDLINED" SITE CERTIFICATE

This Attachment 1 sets forth the specific language changes as a result of this First Request for Amendment to Site Certificate. The specific changes are shown in "redline" below, with additions shown with underlined text and deletions shown with strike-through text:

1) The Certificate Holder requests modification of **section III.1.(a)** of the Site Certificate as follows:

"The energy facility is an electric power generating plant with an average electric generating capacity of approximately ~~91~~94.33 megawatts and a peak generating capacity of not more than ~~272.25~~283 megawatts that produces power from wind energy. The facility consists of not more than 165 wind turbines, each with a peak generating capacity of not more than ~~1.65~~2.4 megawatts. Turbines are mounted on tubular steel towers. The turbine towers are about 265 feet tall at the turbine hub and have an overall height of about ~~400~~413 feet including the radius swept by the turbine blades. The energy facility is described further in the Final Order on the Application."

2) The Certificate Holder requests modification of **section III.1.(b)** of the Site Certificate as follows:

"A power collection system operating at 34.5 kilovolts (kV) transports power from each turbine to a collector substation. Most of the collection system is in underground segments but may include aboveground segments, not exceeding ~~5.5~~12 miles in combined length, mounted on monopole support structures. Power from the eastern section of the facility is transmitted to a substation near Schoolhouse on an aboveground power line operating at 230-kV approximately 3.5 miles in length, supported on wood or steel poles.

3) The Certificate Holder requests that Condition **(28)** of the Site Certificate be modified as follows:

"The certificate holder shall construct a facility substantially as described in the site certificate and may select ~~one of two turbine types: the GE 1.5 megawatt wind turbine, or the Vestas V82 1.65 megawatt wind turbine~~any turbine type such that the hub height does not exceed 80 meters; the rotor diameter does not exceed 92.5 meters; overall height, including blades, does not exceed 126 meters; the peak generating capacity does not exceed 2.4 megawatts; the noise generated by the turbine does not exceed 110 dB; and the turbine type otherwise meets the conditions set forth in the site certificate.

4) The Certificate Holder requests that Condition **(31)** of the Site Certificate be modified as follows:

"Before beginning construction and after considering all micrositing factors, the certificate holder shall provide to the Department a detailed map of the proposed facility, showing the final locations where facility components are proposed to be built in relation to the

300-foot and 900-foot corridors shown on Figures P-1 through P-6 of the first request to amend the site certificate ~~application~~ (~~as revised March 1~~dated July 28, 2006). In accordance with Condition (2), the certificate holder must submit a legal description of the site to the Department. For the purposes of this site certificate, the term "legal description" means a description of location by reference to a map and geographic data that clearly and specifically identifies the physical location of all parts of the facility. Notwithstanding OAR 345-027-0020(2), for the purposes of this site certificate, construction of parts of a wind facility within micrositing corridors is comparable to construction of pipelines or transmission lines within Council-approved corridors as described in OAR 345-027-0023(6). Before beginning operation of the facility, the certificate holder shall submit to the Department a legal description for those parts of the facility constructed within micrositing corridors. The final site of the facility includes the final turbine site corridors and other facility components as described in the final order on the first request to amend site certificate ~~application~~ and in this site certificate.

5) The Certificate Holder requests that Condition **(48)** of the Site Certificate be modified as follows:

"Before beginning construction, the certificate holder shall provide to the Department a map showing the final design locations of all components of the facility and areas that would be temporarily disturbed during construction and also showing the areas that Archaeological Investigations Northwest, Inc. (AINW) surveyed in 2005 and 2006, as described in the site certificate application and the first request to amend the site certificate. The certificate holder shall hire qualified personnel to conduct field investigation of all areas of permanent or temporary disturbance that AINW did not previously survey and shall provide a written report of the field investigation to the Department. If any significant historic, cultural or archaeological resources are found during the field investigation, the certificate holder shall ensure that construction and operation of the facility will have no impact on the resources. The certificate holder shall instruct all construction personnel to avoid the areas where the resources were found and shall implement other appropriate measures to protect the resources.

6) The Certificate Holder requests that Condition **(84)** of the Site Certificate be modified as follows:

"The certificate holder shall install the 34.5-kV collector system underground to the extent practical. Where geotechnical conditions or other engineering considerations require, the certificate holder may install segments of the collector system aboveground in developed or agricultural areas that are Category 6 habitat, but the total length of aboveground segments must not exceed ~~5.5~~12 miles. The certificate holder shall construct aboveground segments of the collector system using single or double circuit monopole design as described in the site certificate application and shall not locate any aboveground segments within 200 feet of any existing residence.

7) The Certificate Holder requests that Condition **(92)** of the Site Certificate be modified as follows:

"The certificate holder may construct turbines and other facility components within the 900-foot corridors shown on Figures P-1 through P-6 of the site certificate application (as revised March 1, 2006, and as further revised as part of the first request to amend the site certificate, dated July 28, 2006), subject to the following requirements addressing potential habitat impact:

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

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

(c) To the extent possible, the certificate holder shall construct facility components in the locations shown on Figure C-2A and C-2B submitted with the first request to amend ~~of~~ the site certificate ~~application~~.

(d) If the certificate holder must change the layout of facility components from what is shown on Figure C-2A and C-2B due to micrositing considerations, the certificate holder shall, to the extent possible, construct facility components within the 300-foot corridors shown on Figures P-1 through P-6 of the site certificate application (as revised March 1, 2006, and as further revised as part of the first request to amend the site certificate, dated July 28, 2006).

(e) The certificate holder may construct facility components outside the 300-foot corridors if necessary due to micrositing considerations, except that the certificate holder shall not construct any facility components outside the 900-foot corridors shown on Figures P-1 through P-6 of the site certificate application (as revised March 1, 2006, and as further revised as part of the first request to amend the site certificate, dated July 28, 2006) or cause any temporary disturbance outside those 900-foot corridors."

ATTACHMENT 2

COMPLIANCE WITH APPLICABLE STANDARDS

This attachment provides an analysis of compliance with ORS 469, applicable Council rules, and applicable state and local laws, rules, and ordinances.

Division 22 Standards

1) OAR 345-022-0000, GENERAL STANDARD OF REVIEW

This standard requires that to amend a site certificate, the Council must determine that the preponderance of evidence on record supports compliance with requirements in ORS 469, standards adopted by the Council applicable to the amended project, and other applicable Oregon statutes and administrative rules.

Response: This Attachment 2 analyzes compliance with applicable Council rules and applicable state and local laws, rules, and ordinances. Further, Attachment 3 includes exhibits specific to those siting standards that are at issue with this First Amendment Request. Based on the information provided below and in Attachment 3, and the information provided in the original ASC, the Council should find that the amended project satisfies OAR 345-022-0000.

2) OAR 345-022-0010, ORGANIZATIONAL EXPERTISE

This standard has four paragraphs. The first two provisions (-0010(1) and (2)) relate to application qualifications and capability, and the final two provisions (-0010(3) and (4)) relate to third-party permits.

Response: Since submittal of the ASC for this project, the information regarding the Certificate Holder's organizational expertise remains the same with minor revisions. See Exhibit D, Attachment 3. The Certificate Holder's parent entity owns and operates a number of other wind power generating facilities, and has received no regulatory citations at those facilities. Since the Council determined that the Certificate Holder has the operational expertise to operate the permitted project, and since the construction and operational requirements of the project as amended are essentially the same as the currently permitted project, the Council can find that the Certificate Holder has the operational expertise to construct and operate the amended facility.

The Certificate Holder does not have a certified ISO 9000 or ISO 14000 program.

The Certificate Holder will not rely on a third party to obtain any of the necessary permits or approvals to construct or operate the facility, as amended.

3) OAR 345-022-0020, STRUCTURAL STANDARD

This standard requires the Council to find:

"(a) The applicant, through appropriate site-specific study, has adequately characterized the site as to seismic zone and expected ground motion and ground failure, taking into account amplification, during the maximum credible and maximum probable seismic events;

"(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 all maximum probable seismic events. As used in this rule 'seismic hazard' includes ground shaking, landslide, liquefaction, lateral spreading, tsunami inundation, fault displacement, and subsidence;

"(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)."

Response: The ASC Exhibit H described the site-specific study completed for this project, including the entire leasehold area of the Certificate Holder and the surrounding areas. Although the Certificate Holder is requesting a change in the site boundary, the amended site boundary remains within the analysis area of Exhibit H of the ASC. The Council concluded that the structural standard was met, and included mitigation requirements in the conditions of the Site Certificate. The Certificate Holder is not requesting a change to these conditions. Therefore, the Council can rely on its previous findings to determine that the amended project is in compliance with this structural standard.

4) OAR 345-022-0022, SOIL PROTECTION

This standard requires the Council to 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."

Response: Although the Certificate Holder is requesting a change to the site boundary, it remains within the analysis area of Exhibit I of the ASC. An amended application for a 1200-C permit is included with this First Request for Amendment (see Exhibit I, Attachment 3), and it demonstrates compliance with DEQ erosion control standards in areas outside of the permitted site boundary that will be disturbed as a result of this project amendment. At the time of submittal of this First Request for Amendment, DEQ is evaluating this proposal.

The Certificate Holder intends to utilize the same erosion control measures, best management practices, and follow the requirements if the currently issued 1200-C permit in areas outside the permitted site boundary that will be disturbed. Therefore, the Council

can rely on the Site Certificate findings with regard to soil for the amended project. See also Exhibit I, Attachment 3.

5) OAR 345-022-0030, LAND USE

This standard requires that the facility be in compliance with "the statewide planning goals adopted by the Land Conservation and Development Commission." OAR 345-022-0030(1). A facility may show compliance either by securing necessary local approvals or demonstrating to the Council that the proposal can meet all applicable land use criteria.

Response: The Certificate Holder elected to demonstrate to the Council that the proposed facility can meet all applicable land use criteria. The Council identified all aspects of facility construction, operation, and retirement that would implicate local or statewide land use review requirements and then found that the proposed facility would meet all applicable criteria. The amended project, as requested in this First Request for Amendment, also meets all applicable land use criteria. Although the Certificate Holder is requesting a change in the site boundary, the amended site boundary does not trigger new land use concerns or issues that were not previously analyzed in Exhibit K of the ASC. The Council concluded that the land use standard was met, and included mitigation requirements in the conditions of the Site Certificate. The Certificate Holder is not requesting a change to these conditions. Therefore, the Council can rely on its earlier findings, as well as the discussion set forth in Exhibit K, Attachment 3, to determine that the amended project is in compliance with the land use standard.

6) OAR 345-022-0040, PROTECTED AREAS

This standard prohibits the siting of an energy facility in any of the listed protected areas. OAR 345-022-0040(1). The standard permits the siting of a facility outside the listed protected areas so long as the Council finds, "taking into account mitigation, the design, construction, and operation of the facility are not likely to result in significant adverse impact" to any of the listed protected areas.

Response: The amended site boundary does not lie within a protected area as defined in OAR 345-022-0040(1)(a) through (p). The ASC Exhibit L described the potential impacts to protected areas within 5 miles of the permitted site boundary. Although the certificate holder is requesting a change in the site boundary, the amended site boundary remains within the analysis area of Exhibit L of the ASC. The Council concluded that the protected area standard was met, and included mitigation requirements in the conditions of the Site Certificate. The certificate holder is not requesting a change to these conditions. Therefore, the Council can rely on its earlier findings to determine that the amended project is in compliance with the standard for protected areas.

Sections (2) and (3) of OAR 345-022-0040 do not apply.

7) OAR 345-022-0050, RETIREMENT AND FINANCIAL ASSURANCE

OAR 345-022-0050 requires the Council to find that "the site, taking into account mitigation, can be restored adequately to a useful, non-hazardous condition following permanent cessation of construction or operation of the facility," and that "the applicant has a reasonable likelihood of obtaining a bond or letter of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-hazardous condition."

Response: Based on Exhibit W of the ASC, the Council found that the permitted site could be restored adequately to a useful, non-hazardous condition following permanent cessation of construction or operation of the facility. The requested amendment does not seek to change the type of land to be restored or facilities to be removed. It does not propose to operate in a different manner or use hazardous materials or generate hazardous waste not considered by the Council for the permitted project. Therefore, the Council may rely on its findings and determination of compliance with the standard for retirement.

Pursuant to the analysis contained in Exhibit W, Attachment 3, the Certificate Holder has determined that the retirement costs of the amended project will be less than the retirement costs of the project as currently authorized. The Certificate Holder nevertheless intends to rely on its existing Financial Assurance Letter, and the Council can find that the Certificate Holder is in compliance with the retirement and financial assurances standard for purposes of this First Amendment Request.

8) OAR 345-022-0060, FISH AND WILDLIFE HABITAT

For this standard, the Council must find that "the design, construction, operation, and retirement of the facility, taking into account mitigation, are consistent with the fish and wildlife mitigation goals and standards of OAR 635-415-0025 in effect as of September 1, 2000." OAR 345-022-0060. As revised, OAR 635-415-0025 describes six categories of habitat, in order of their value. The rule then establishes mitigation goals and corresponding implementation standards for each habitat category.

Response: The amended project includes an expansion of the project boundary. An analysis of the amended project's compliance with the fish and wildlife habitat standard is included in Exhibit P, Attachment 3. Based on the analysis, the Council can determine that the amended project meets the fish and wildlife habitat standard.

9) OAR 345-022-0070, THREATENED AND ENDANGERED SPECIES

This standard requires that the Council find that the design, construction, operation, and retirement of the proposed facility, taking into account mitigation, are consistent with any applicable conservation program adopted by Oregon Department of Agriculture ("ODA") for plant species pursuant to ORS 564.105(3). If ODA has not adopted a protection and conservation program, then the Council must find that the design, construction, operation, and retirement of the proposed facility are not likely to cause a significant reduction in the likelihood of survival or recovery of the plant species. For wildlife species listed as threatened or endangered under ORS 496.172(2), the Council must determine that the

design, construction, operation, and retirement of the proposed facility "taking into account mitigation, are not likely to cause a significant reduction in the likelihood or survival or recovery of the species."

Response: The amended project includes an expansion of the project boundary. An analysis of the amended project's compliance with the threatened and endangered species standard is included in Exhibit Q, Attachment 3. Based on the analysis, the Council can determine that the amended project meets the threatened and endangered species standard.

10) OAR 345-022-0080, SCENIC AND AESTHETIC VALUES

This standard requires that the Council find that "the design, construction, operation, and retirement of the facility, taking into account mitigation, are not likely to result in significant adverse impact to scenic and aesthetic values identified as significant or important in the applicable federal land management plans or in local land use plans in the analysis area described in the project order."

Response: The amended project includes an expansion of the project boundary and further allows a new and larger turbine type. An analysis of the amended project's compliance with the scenic and aesthetic values standard is included in Exhibit R, Attachment 3. Based on the analysis, the Council can determine that the amended project meets the scenic and aesthetic values standard.

11) OAR 345-022-0090, HISTORIC, CULTURAL, AND ARCHAEOLOGICAL RESOURCES

This standard requires that the Council find that:

"The construction, operation and retirement of the facility, taking into account mitigation, are not likely to result in significant adverse impacts to:

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

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

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

While 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 above, the Council may apply the above requirements to impose conditions on a site certificate issued for such a facility.

Response: The amended project includes an expansion of the project boundary and further allows a new and larger turbine type. An analysis of the amended project's compliance with the historic, cultural, and archaeological resources standard is included

in Exhibit S, Attachment 3. Based on the analysis, the Council can determine that the amended project meets the historic, cultural, and archaeological resources standard.

12) OAR 345-022-0100, RECREATION

This standard requires that the Council 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."

Response: The ASC Exhibit T describes the potential impacts to recreation opportunities within five miles of the permitted site boundary. Although the Certificate Holder is requesting a change in the site boundary, the amended site boundary remains within the original analysis area of Exhibit T. The Council concluded that the recreation standard was met, and included mitigation requirements in the conditions of the Site Certificate. The Certificate Holder is not requesting a change to these conditions. Therefore, the Council can rely on its earlier findings to determine that the amended project is in compliance with the standard for recreation.

Sections (2) and (3) of OAR 345-022-0100 do not apply.

13) OAR 345-022-0110, PUBLIC SERVICES

This standard requires the Council to find that "the construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impact to the ability of public and private providers within the analysis area described in the project order to provide: sewers and sewage treatment, water, storm water drainage, solid waste management, housing, traffic safety, police and fire protection, health care and schools."

While 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 above, the Council may apply these requirements to impose conditions on a site certificate issued for such a facility.

Response: The ASC Exhibit U describes the potential impacts to public services within 30 miles of the permitted site boundary. Although the Certificate Holder is requesting a change in the site boundary, the amended site boundary remains within the analysis area of Exhibit U. The amendment does not propose any change that would increase the number of construction or operation employees, and proposes no change in the quantity or method of disposal of solid waste, wastewater, or storm water. No change to traffic levels will result from this First Amendment Request, and no new methods of fire control or emergency response are proposed.

Based on the information in ASC Exhibit U, the Council concluded that the public services standard was met, and included mitigation requirements in the conditions of the Site Certificate. The Certificate Holder is not requesting a change to these conditions. Therefore, the Council can rely on its earlier findings to determine that the amended project is in compliance with the standard for public services.

14) OAR 345-022-00120, WASTE MINIMIZATION

This standard requires the Council to find that to the extent reasonably practicable:

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

"(b) The applicant's plans to manage the accumulation, storage, disposal, and transportation of waste generated by the construction and operation of the facility are likely to result in minimal adverse impact on surrounding and adjacent areas."

While the Council may issue a site certificate for a facility that would produce power from wind, solar, or geothermal energy without making the above findings, the Council may apply the above requirements to impose conditions on a site certificate issued for such a facility.

Response: The requested amendment does not affect the Certificate Holder's plans to minimize, manage, recycle, or reuse solid waste or waste water. The Certificate Holder is not requesting a change to any condition related to waste management. See also Exhibit W, Attachment 3. Therefore, the Council can rely on its earlier findings, and the findings contained in Exhibit W, Attachment 3, to determine that the amended project is in compliance with the standard for waste minimization.

Division 23 Standards

None of the standards contained in OAR chapter 345, division 23 are applicable or relevant to the Klondike III Wind Project.

Division 24 Standards

The only standards contained in OAR chapter 345, division 24 applicable to the Klondike III Wind Project are as follows:

1) OAR 345-024-0010, PUBLIC HEALTH AND SAFETY STANDARDS FOR WIND ENERGY FACILITIES

This standard requires the Council to find that applicants for wind energy facilities:

"(a) Can design, construct, and operate the facility to exclude members of the public from close proximity to the turbine blades and electrical equipment;

"(b) 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."

Response: Although the Certificate Holder is requesting a change in the site boundary and a change to allow for different turbine type, the requested changes do not affect the Certificate Holder's plans to exclude the public from close proximity to the turbine blades and electrical equipment or to take steps to preclude structural failure of the towers of blades to that could endanger public safety. Further, the amendment does not alter the safety procedures intended to protect public safety. The Certificate Holder is not requesting any change to the conditions in the Site Certificate addressing these matters. Therefore, the Council can rely on its earlier findings and the original Site Certificate conditions regarding public safety to determine that the amended project is in compliance with this standard.

2) OAR 345-024-0015, SITING STANDARDS FOR WIND ENERGY FACILITIES

This standard requires the Council to find that applicants for wind energy facilities can reduce visual impacts with regard to advertising, lighting, and signage; can design the facility to restrict public access to the towers; and can reduce cumulative adverse environmental impacts by using existing roads to the extent practicable, combining transmission lines and points of connection to local distribution lines, connecting to existing substations or minimizing the number of new substations, and avoiding to the extent practicable artificial habitat for raptors.

Response: Although the Certificate Holder is requesting a change in the site boundary and a change to allow for different turbine type, the requested changes do not affect the Certificate Holder's plans to reduce visual impacts or restrict public access to towers. The Certificate Holder is not requesting a change to any of the conditions in the Site Certificate addressing these efforts, and the amended project should not effect existing visual impacts (see also Exhibit R, Attachment 3), or public access. As for efforts to reduce cumulative adverse environmental impacts, the amended project would result in the reconfiguration of some turbine strings and access roads. The realigned turbine strings will be within the existing micro-siting corridor, and a majority of road realignment will also be within the existing micro-siting corridor. The Certificate Holder has taken steps to minimize the acres of additional permanent impact, all of which will occur in agricultural areas. Further, the alternate O&M building would permanently impact approximately 3 acres of land, in lieu of the approximately 5-acre O&M/substation currently authorized by the Site Certificate. Finally, geotechnical information and electrical engineering considerations have resulted in the need to construct a larger portion of the underground collector system aboveground, resulting in a request of up to 12 miles of the aboveground collector system be authorized, rather than 5.5 miles. In making these changes, the Certificate Holder is using existing roads to the extent practicable, combining transmission lines and points of connection to local distribution lines where feasible, and avoiding to the extent practicable artificial habitat for raptors. The ASC analyzed all of these potential impacts, and the Certificate Holder is not requesting changes to the Site Certificate conditions addressing these potential impacts. The existing conditions would be applicable to these expanded areas and facilities as well. Therefore, the Council can rely on its earlier findings and the original Site Certificate conditions regarding these matters to determine that the amended project is in compliance with OAR 345-024-0015.

Division 27 Standards

OAR 345-027-0060(1)(f) requires an analysis of whether the facility, with the proposed change, would comply with the requirements of ORS Chapter 469, applicable Council rules, and applicable state and local laws, rules and ordinances if the Council amends the site certificate, as requested. For the purpose of this rule, a law, rule, or ordinance is "applicable" if the Council would apply or consider the law, rule, or ordinance under OAR 345-027-0070(9).

The discussion above demonstrates compliance with the applicable Council rules and local land use criteria (see also Exhibit K, Attachment 3). The discussion below demonstrates compliance with all other applicable state laws and rules.

1) OAR 340-035-0035, NOISE

The Council applies and enforces the Department of Environmental Quality's (DEQ) noise standards for energy facilities under its jurisdiction.

Response: The amended project includes an expansion of the project boundary and authorization for an additional turbine type, as well as realignments of turbine strings within the existing micro-siting corridor. An analysis of the amended project's compliance with the noise standard is included in Exhibit X, Attachment 3. Based on the analysis, the Council can determine that the amended project meets the noise standard.

2) ORS 196.800-.990, WETLANDS

Pursuant to OAR 345-022-0000, the Council must determine compliance with applicable statutes, ORS 196.800-.990, and applicable Division of State Lands (DSL) regulations, OAR 141-085-0005, *et seq.*, relating to fill and other operations taking place within wetlands. These regulations require persons to obtain a fill-removal permit if more than 50 cubic yards of material will be removed or altered within "waters of the state." The overall standard to be considered in granting a fill-removal permit is whether the proposed activity would not "unreasonably interfere with the paramount policy of this state to preserve the use of its waters for navigation, fishing, and public recreation." ORS 196.825(2).

Response: The First Request for Amendment does not propose any fill in jurisdictional waters in excess of the 50 cubic yard threshold. Therefore, the Council may rely on its initial findings and the existing conditions in the Site Certificate to determine that the amended project is in compliance with applicable Oregon statutes and regulations regarding wetlands.

3) ORS 469.401(2), PUBLIC HEALTH AND SAFETY

The Council is required to impose conditions in the site certificate for the protection of public health and safety.

Response: The current Site Certificate has several conditions relating to public health and safety, including measures to provide protection from electric and magnetic fields;

none of these conditions are impacted by this First Request to Amend the Site Certificate. While the amendment request does seek authorization to construct a larger portion of the underground collector system aboveground, resulting in a request of up to 12 miles of the aboveground collector system be authorized, rather than 5.5 miles, the existing conditions will be equally applicable to this additional aboveground segment. The amended project will not impact public health and safety and will not affect the project's compliance with the public health and safety standards. Therefore, the Council may rely on its initial findings and the existing conditions in the Site Certificate to determine that the amended project is in compliance with applicable public health and safety requirements.

EXHIBIT D

APPLICANT'S ORGANIZATIONAL, MANAGERIAL, AND TECHNICAL EXPERTISE

OAR 345-021-0010(1)(d)

TABLE OF CONTENTS

D.1 INTRODUCTION

OAR 345-021-0010(1)(d) *Information about the organizational expertise of the applicant to construct and operate the proposed facility, providing evidence to support a finding by the Council as required by OAR 345-022-0010, including:*

Response: As described in the ASC, PPM Energy, Inc. (PPM) as parent of the Certificate Holder, Klondike Wind Power III LLC (Klondike III) will provide the organizational, managerial, and technical expertise to construct and operate the proposed facility.

D.2 APPLICANT'S PREVIOUS EXPERIENCE

OAR 345-021-0010(1)(d)(A) *The applicant's previous experience, if any, in constructing and operating similar facilities;*

Response: The previous experience of the Certificate Holder is the same as described in the ASC. PPM's total wind generation portfolio is over 1,600 MW of capacity either in operation or under construction.

D.3 QUALIFICATION OF APPLICANT'S PERSONNEL

OAR 345-021-0010(l)(d)(B) *The qualifications of the applicant's personnel who will be responsible for constructing and operating the facility, to the extent that the identities of such personnel are known when the application is submitted;*

Response: Key personnel assigned to the Klondike III team are the same as indicated in the ASC with the following three exceptions:

Donald Furman, Senior Vice President of Thermal Generation and Power Origination, is responsible for thermal asset management and power origination. Mr. Furman was previously with PacifiCorp for 10 years, most recently as Senior Vice President of Regulation and External Affairs. At various times, he also held the roles of Vice President of Domestic Mergers and Acquisitions, Vice President of Transmission, and President of the company's unregulated power marketing subsidiary. He was instrumental in starting up PPM in the mid-90s when the company had been owned by PacifiCorp.

Prior to joining PacifiCorp, Mr. Furman was Senior Vice President/Operations of Citizens Lehman Power LP. He also practiced law with an emphasis on energy transactions and regulation. He holds a BA in economics from Northwestern University and a JD from Lewis and Clark Law School.

Paul Koehler is no longer a PPM employee.

Ty Daul is responsible for business development activities at PPM including new power project development and wholesale power marketing. Ty has played a major role in developing a number of energy projects including 52 MW Moraine wind generation facility along the Buffalo Ridge in SW Minnesota, the 200 MW Big Horn facility in

Washington and the 150MW Shiloh facility in California. Ty has over 12 years experience in the energy industry. Ty holds a degree from the University of Washington and an MBA from Texas A&M. Prior to joining PPM, Ty was responsible for developing regional power opportunities on behalf of several independent power producers and involved in the development of close to 1,000 MW of natural gas fired power plants.

D.4 QUALIFICATIONS OF KNOWN CONTRACTORS

OAR 345-021-0010(1)(d)(C) *The qualifications of any architect, engineer, major component vendor, or prime contractor upon whom the applicant will rely in constructing and operating the facility, to the extent that the identities of such persons are known when the application is submitted;*

Response: The Certificate Holder has not selected a prime contractor to construct the project. However, Klondike III will work with engineers, manufacturers, and contractors who are experienced in the wind industry to complete the project.

D.5 APPLICANT'S PAST PERFORMANCE

OAR 345-021-0010(1)(d)(D) *The past performance of the applicant, including but not limited to the number and severity of any regulatory citations in constructing or operating a facility, type of equipment, or process similar to the proposed facility;*

Response: Neither PPM nor the Certificate Holder has received any regulatory citations in connection with the construction or operation of similar facilities.

D.6 APPLICANT WITH NO PREVIOUS EXPERIENCE

OAR 345-021-0010(1)(d)(E) *If the applicant has no previous experience in constructing or operating similar facilities and has not identified a prime contractor for construction or operation of the proposed facility, other evidence that the applicant can successfully construct and operate the proposed facility. The applicant may include, as evidence, a warranty that it will, through contracts, secure the necessary expertise; and*

Response: Not applicable.

D.7 ISO CERTIFIED PROGRAM

OAR 345-021-0010(1)(d)(F) *If the applicant has an ISO 9000 or ISO 14000 certified program and proposes to design, construct and operate the facility according to that program, a description of the program;*

Response: PPM does not have an ISO 9000 or 14000 certified program.

D.8 MITIGATION

OAR 345-021-0010(1)(d)(G) *If the applicant relies on mitigation to demonstrate compliance with any standards of Division 22 or 24 of this chapter, evidence that the applicant can successfully complete such proposed mitigation, including past experience with other projects and the qualifications and experience of personnel upon whom the applicant will rely, to the extent that the identities of such persons are known at the date of submittal.*

Response: Mitigation for the project will be conducted as proposed in the ASC and Site Certificate.

D.9 CONCLUSION

Based on the above information, the applicant has satisfied the required 345-021-0010(1)(d), and the Council may find that the applicant has the organizational expertise to construct, operate, and retire the proposed facility in compliance with Council stand pursuant to OAR 345-002-0010.

EXHIBIT I

SOILS
OAR 345-021-0010(1)(i)

TABLE OF CONTENTS

APPENDIX

I.1 INTRODUCTION

OAR 345-021-0010(1)(i) *Information from reasonably available sources regarding soil conditions and uses of the site and vicinity, providing evidence to support findings by the Council as required by OAR 345-022-0022, including:*

Response: The evidence below demonstrates that facility construction and operation in the expanded site boundary will not result in significant adverse impacts to soils. The potential for erosion during facility construction will be minimized by adhering to an erosion control plan and NPDES 1200-C construction permit for the expanded area. As described in the ASC, all areas of temporary soil disturbance and vegetation removal will be reclaimed through reseeding of native vegetation or crops to protect against loss of soil to erosion.

I.2 IDENTIFICATION AND DESCRIPTION OF SOIL TYPES

OAR-345-021-0010(1)(i)(A) *Identification and description of the major soil types at the site and its vicinity;*

Response: Soil types in the expanded site boundary are the same as those identified in the ASC.

I.3 IDENTIFICATION AND DESCRIPTION OF LAND USES

OAR-345-021-0010(1)(i)(B) *Identification and description of any land uses on the proposed site and its vicinity, such as growing crops, that require or depend on productive soils;*

Response: Within the expanded site boundary, land uses consist of private agricultural land generally used for dryland wheat production. Portions of the land have also been enrolled in the Conservation Reserve Program (CRP). Permanent project facilities in the expanded area will occupy approximately 7.1 acres. Temporary impacts from construction in the expanded area will disturb an additional 120.7 acres.

I.4 IDENTIFICATION AND ASSESSMENT OF IMPACTS TO SOILS

OAR 345-021-0010(1)(i)(C) *Identification and assessment of significant potential adverse impact to soils from construction, operation, and retirement of the facility, including, but not limited to, erosion and chemical factors such as salt deposition from cooling towers, land application of liquid effluent, and chemical spills;*

Response: Unavoidable impacts to soils within the expanded site boundary will result from placement of permanent project facilities on approximately 7.1 acres. Additionally, facility construction will temporarily disturb 120.7 acres. These soil impacts will be limited according to the same methods identified in the ASC.

I.5 DESCRIPTION OF PROPOSED MITIGATION MEASURES

OAR 345-021-0010(1)(i)(D) *A description of any measures the applicant proposes to avoid or mitigate adverse impact to soils; and*

Response: Direct permanent impacts to soil within the expanded area due to roads and laydown areas will be unavoidable. Construction of all features of the project will be in compliance with an amended NPDES 1200-C construction permit (See Exhibit I-1 for the Application). Measures outlined in the existing Erosion Control Plan submitted with the ASC will be implemented to minimize soil impacts and erosion.

I.6 MONITORING PROGRAM

OAR 345-021-0010(1)(i)(E) *The applicant's proposed monitoring program, if any, for impact to soils.*

Response: Monitoring of construction and soils disturbing activities in the expanded site boundary will be the same as for the permitted site.

I.7 CONCLUSION

The information provided in this exhibit describes soils on the site and potential impacts in detail. The applicant will minimize impacts to soils by using existing roads and restoring temporarily disturbed areas. These preventive measures and erosion control measures described in the amended NPDES 1200-C permit application will ensure the impacts to soils are insignificant. Therefore, the applicant has met this standard, and the Council may find that the standard contained in OAR 345-022-0022 is satisfied.

Appendix I-1

Amended 1200-C Permit Application

DEQ USE ONLY
Application #:
File #:
Mail UD #2/#9:
LLID/RM:
ACD Fee Paid:
DOC Conf:
Notes:

APPLICATION FOR NEW NPDES GENERAL PERMIT #1200-C

Oregon Department of Environmental Quality

For construction activities, including clearing, grading, and excavation, that disturb 5 or more acres of land, or will disturb 5 or more acres over time as part of a common plan of development. (For 1 or more acres of disturbance starting 12/01/2002)

DEQ USE ONLY
Received:
Amount Received:
Check #:
Deposit #:
☐ IND ☐ DOM ☐ UIC
Notes:

A. REFERENCE INFORMATION

1. **Klondike Wind Power III LLC (Klondike III)**
Applicant (Owner, Developer, or General Contractor)

Jesse Gronner
Contact Name

1125 NW Couch, Suite 700
Address

Portland (City) **Oregon** (State) **97209** (Zip)

503-796-7045 (Telephone) E-Mail Address

2. _____ **Applicant is leasing land from several landown whose names and contact information are listed in Exhibit F.**
Owner (if different from applicant)

Contact Name

Address

City State Zip

Telephone E-Mail Address

3. **David Evans and Associates, Inc.**
Architect/Engineering Firm

Dana Siegfried
Project Manager

2100 SW River Parkway
Address

Portland (City) **Oregon** (State) **97201** (Zip)

503-499-0369 (Telephone) **dns@deainc.com** (E-Mail Address)

4. **The inspector will be selected by the contractor**
Applicant's Designated Erosion and Sediment Control Inspector

Contact Name

Address

City State Zip

Telephone E-Mail Address

5. Invoice to: **Klondike Wind Power III LLC** Telephone #: **(503) 796-7045**

Billing Address: **c/o PPM Energy, Inc., 1125 NW Couch, Suite 700** City, State, Zip Code: **Portland, OR 97209**

B. PROJECT INFORMATION

1. Name of Project: **Klondike III Wind Project**

2. Proposed Start Date: **April 2006**

3. General Property Description
Street Address: _____
Cross Street: _____
City: **4 miles east of Wasco** Zip Code: _____
County: **Sherman County**

4. Legal Description
Tax Lot No.: **See Exhibit F for a list**
Section, Township, Range: **See Table 1**
Site Size (acres): **approximately 14,500**
Disturbed Area (acres): **250**

B. PROJECT INFORMATION
continued

5. Site Location by Latitude and Longitude

Latitude: 45 ° / 35 / 0.98N
Degrees Minutes Seconds

Longitude: 120 / 33 / 1.46W
Degrees Minutes Seconds

6. Nature of the Construction Activity
- ☐ Single Family/Duplex Residential
- ☐ Commercial
- ☒ Industrial
- ☐ Subdivision, Number of Lots: _____
- ☐ Utilities: _____
- ☐ Other: _____

7. Existing Site Runoff
- ☒ Creek/Stream: Grass Valley _____
- ☐ Ditch: _____
- ☐ Municipal Storm Sewer or Drainage System
- ☐ Other: _____

8. Proposed Site Runoff
- ☒ Creek/Stream: Grass Valley _____
- ☐ Ditch: _____
- ☐ Municipal Storm Sewer or Drainage System (See Note)
- ☐ Other:

Note: If storm water discharges to a municipally owned storm sewer, authorization from the municipality must accompany this application.

C. EROSION AND SEDIMENT CONTROL PLAN

1. Erosion and Sediment Control Plan Submittal

☒ Included with ~~this application~~ original application for this project

☐ To be provided at a later date, approx. date: _____

2. Contact Name for Plan: Sean Sullivan _____

Telephone: (503) 223-6663 _____

E-Mail: _____

D. LAND USE COMPATIBILITY STATEMENT

Attach a complete Land Use Compatibility Statement (LUCS) signed by the local land use authority. The application will not be processed without evidence that the proposal is approved by the local land use authority and meets statewide planning goals.

E. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE

The legally authorized representative must sign the application. Please see the following definitions (see 40 CFR 122.22 for more detail if needed). Also, please also provide the information requested in brackets *[ ]*.

- **Corporation** — president, secretary, treasurer, vice-president, or any person who performs principal business functions; or a manager of one or more facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million that is authorized in accordance to corporate procedure to sign such documents
- **Partnership** — General partner *[list of general partners, their addresses and telephone numbers]*
- **Sole Proprietorship** — Owner(s) *[each owner must sign the application]*
- **City, County, State, Federal, or other Public Facility** — Principal executive officer or ranking elected official
- **Limited Liability Company** — Member *[articles of organization]*
- **Trusts** — Acting trustee *[list of trustees, their addresses and telephone numbers]*

I hereby certify that the information contained in this application is true and correct to the best of my knowledge and belief. In addition, I agree to pay all permit fees required by Oregon Administrative Rules 340-45. This includes a renewal application fee to renew the permit and a compliance determination fee invoiced annually by DEQ to maintain the permit.

Allan E. Query	Vice President
Name of Legally Authorized Representative (Type or Print)	**Title**
	July 28, 2006
Signature of Legally Authorized Representative	**Date**

Send this form, Land Use Compatibility Statement, and $670 fee to the appropriate DEQ regional office:
Make your check payable to the Department of Environmental Quality

DEQ Northwest Region	DEQ Western Region	DEQ Eastern Region
2020 SW 4th Ave., Suite 400	750 Front St. NE, Suite 120	700 SE Emigrant, Suite 330
Portland, OR 97201-4987	Salem, OR 97301-1039	Pendleton, OR 97801
(503) 229-5263 or 1-800-452-4011	(503) 378-8240 or 1-800-349-7677	(541) 276-4063 or 1-800-452-4011

Table 1. Section, Township, and Range at project site.

TOWNSHIP	RANGE	SECTION
2.00 N	17.00 E	7
2.00 N	17.00 E	17
2.00 N	17.00 E	18
2.00 N	17.00 E	20
2.00 N	17.00 E	26
2.00 N	17.00 E	25
2.00 N	17.00 E	29
2.00 N	17.00 E	28
2.00 N	17.00 E	27
2.00 N	18.00 E	30
2.00 N	18.00 E	29
2.00 N	18.00 E	27
2.00 N	18.00 E	26
2.00 N	18.00 E	25
2.00 N	18.00 E	28
2.00 N	19.00 E	30
2.00 N	17.00 E	33
2.00 N	17.00 E	34
2.00 N	17.00 E	35
2.00 N	17.00 E	36
2.00 N	18.00 E	31
2.00 N	18.00 E	32
2.00 N	18.00 E	35
2.00 N	18.00 E	36
2.00 N	18.00 E	33
2.00 N	18.00 E	34
2.00 N	19.00 E	31
2.00 N	19.00 E	32
1.00 N	17.00 E	1
1.00 N	18.00 E	6
1.00 N	18.00 E	5
1.00 N	18.00 E	1
1.00 N	19.00 E	6
1.00 N	18.00 E	2
1.00 N	18.00 E	4
1.00 N	18.00 E	3
1.00 N	19.00 E	5
1.00 N	18.00 E	7
1.00 N	18.00 E	8
1.00 N	18.00 E	12
1.00 N	18.00 E	9
1.00 N	18.00 E	10
1.00 N	18.00 E	11
1.00 N	19.00 E	7
1.00 N	19.00 E	8
1.00 N	19.00 E	9
1.00 N	17.00 E	15
1.00 N	17.00 E	14
1.00 N	18.00 E	18
1.00 N	18.00 E	13
1.00 N	18.00 E	17
1.00 N	18.00 E	16
1.00 N	19.00 E	18
1.00 N	18.00 E	15

TOWNSHIP	RANGE	SECTION
1.00 N	18.00 E	14
1.00 N	19.00 E	17
1.00 N	19.00 E	16
1.00 N	17.00 E	22
1.00 N	17.00 E	23
1.00 N	17.00 E	24
1.00 N	18.00 E	19
1.00 N	18.00 E	21
1.00 N	18.00 E	22
1.00 N	18.00 E	20
1.00 N	18.00 E	24
1.00 N	18.00 E	23
1.00 N	19.00 E	19
1.00 N	19.00 E	20
1.00 N	17.00 E	27
1.00 N	17.00 E	26
1.00 N	17.00 E	25
1.00 N	18.00 E	25
1.00 N	18.00 E	30
1.00 N	18.00 E	29
1.00 N	18.00 E	28
1.00 N	18.00 E	27
1.00 N	17.00 E	34
1.00 N	17.00 E	35
1.00 N	17.00 E	36
1.00 N	18.00 E	31
1.00 N	18.00 E	32
1.00 N	18.00 E	33
1.00 N	18.00 E	34

Klondike III Wind Project
Amendment 1
Figure C-2B
Amended Project Components

Medler Ln
N Klondike Rd
Emigrant Springs Rd
Dehler Rd
Not Leased
Beacon Rd
Klondike Ln
McDonald Ferry Ln
Sandon Rd
Gosson Ln
Hwy 206
Smith Ln
Not Leased

Legend

- 82.5 Meter Rotor Turbines
- 92.5 Meter Rotor Turbines
- Proposed Met Tower
- Proposed Overhead T-line
- Proposed Underground Collector
- Crane Path
- Proposed New Road
- Already Permitted Road (KII)
- Existing Road
- Existing Road Requiring Widening Upgrade
- Proposed O&M Facility
- Alternative O&M Facility
- Existing O&M Facility
- Proposed Substation
- Existing Substation
- Proposed Laydown Area
- Proposed Habitat Mitigation Area
- Lease Boundary

0 0.5 1 2
Miles

p:/ppme00000001/0600info/gs/arcmap/figures_0706/fig_c2b_proj_comp_073006.mxd July 30, 2006

EXHIBIT J

WETLANDS
OAR 345-021-0010(1)(j)

TABLE OF CONTENTS

APPENDIX

J.1 INTRODUCTION

OAR 345-021-0010(1)(j) *Information based on literature and field study, as appropriate, about significant potential impacts of the proposed facility on wetlands that are within state jurisdiction under ORS Chapter 196, including:*

Response: A wetland delineation (Appendix J-1) was conducted within the expanded site boundary according to methods outlined in the ASC. Results of this analysis are provided below.

J.2 EFFECT ON WATERS OF THE STATE AND WETLANDS DELINEATION REPORT

OAR-345-021-0010(1)(j)(A) *A determination, as defined in OAR 141-090-0020, of whether construction or operation of the proposed facility would affect any waters of the state, including wetlands, and, if so, a wetland delineation report, as defined in OAR 141-090-0020, describing how those waters would be affected;*

Response: Based on the amended project design and previous wetland delineation results, an underground collector line avoid all wetlands and regulated waterways.

J.3 MAP OF WETLANDS UNDER STATE JURISDICTION

OAR-345-021-0010 (1)(j)(B) *A wetland map, as defined in OAR 141-090-0020, showing the location of any wetlands under state jurisdiction on or near the site and the source of the water for the wetlands, including any wetlands identified in the Statewide Wetland Inventory of the Division of State Lands;*

Response: A wetland delineation was conducted for the expanded site boundary and is provided in Appendix J-1. No additional wetlands or waters were identified.

J.4 DESCRIPTION OF EACH WETLAND IDENTIFIED

OAR 345-021-0010(1)(j)(C) *A description of each wetland identified in (A);*

Response: No new wetlands or waters of the state were identified within the expanded site boundary.

J.5 SIGNIFICANT POTENTIAL IMPACTS TO WETLANDS

OAR 345-021-0010(1)(j)(D) *A description of significant potential impact to each wetland, if any, including the nature and amount of material the applicant would remove from or place in each wetland and the specific locations where the applicant would remove or fill that material;*

Response: No temporary or permanent impacts will result from project activities within the expanded site boundary. Wetlands and waterways will be avoided.

J.6 EVIDENCE THAT FILL AND REMOVAL PERMITS CAN BE ISSUED

OAR 345-021-0010(1)(j)(E) *Evidence that all required fill and removal permits of the Oregon Division of State Lands can be issued to the proposed facility in compliance with ORS 196.800 et seq., including:*

(i) A discussion and evaluation of the factors listed in ORS 196.825 and OAR chapter 141 division 85; and

Response: The project will not impact wetlands or regulated waterways; therefore, a Removal Fill permit is not required.

(ii) A description of the steps the applicant proposes to mitigate impacts to wetlands;

Response: Since no impacts will occur, mitigation is not required.

J.7 MONITORING PROGRAM, IF ANY, FOR IMPACTS TO WETLANDS

OAR 345-021-0010(1)(j)(F) *The applicant's proposed monitoring program, if any, for impacts to wetlands.*

Response: Monitoring is not warranted or proposed because no wetland or waterway impacts will occur.

APPENDIX J-1

Wetland Delineation

DAVID EVANS
AND ASSOCIATES INC.

MEMORANDUM

DATE: June 29, 2006

TO: Jill Myatt (Oregon Department of State Lands)

FROM: Ethan Rosenthal

SUBJECT: **Wetland Analysis Additional Study Area Field Results**

PROJECT: Klondike III Wind Power Project

PROJECT NO: PPME0000-0001

COPIES: Jesse Gronner

John White

The purpose of this memorandum is to request a revision to the wetland analysis area boundary for the Klondike III Wind Power Project. The wetland delineation for this project was reviewed and concurred with by the Oregon Department of State Lands (DSL) as expressed in your letter to Jesse Gronner, with PPM Energy Inc. (PPM), dated September 26, 2005. The DSL identification number for the wetland delineation report is WD #05-0565.

The wetland analysis area boundary was revised in order to capture recent adjustments in project design. The new wetland analysis area includes the previously concurred with analysis area, plus additional area needed to allow for the proposed design adjustments. The attached revised Figure 3 shows the previously concurred with wetland analysis area plus the new wetland analysis areas. The new areas were reviewed in the field on June 6, 2006. A summary of methods and findings are provided below.

Methods

The June 6, 2006 site investigation focused on drainage areas that are mapped on the USGS quad maps covering the project area. Past wetland delineation efforts at the project site revealed that the site is very arid, with wetland and water features only occurring in these mapped intermittent drainage features. Even then, most of the mapped features have been plowed through for farming and no longer contain wetlands or waterways. Mapped drainage ways that intersect with the new wetland analysis area were reviewed for wetland characteristics as well as for a defined bed and banks, including hydrologic connectivity to fish bearing streams. Figure 3 shows the location of these observation points.

Results

All the drainage crossings reviewed, with one exception, have been plowed through and no channel is present. Wetland characteristics (i.e. hydrophytic vegetation, wetland hydrology, and hydric soils) were also absent. The one exception was at observation point "A." A short section of dry channel was observed in this location. The bottom of the channel was partially vegetated with cheat grass (*Bromus tectorum*). Cheat grass was abundant adjacent to the channel. An access road currently crosses the channel, providing access from Dehler Road onto one of the turbine strings associated with the existing Klondike II project. The channel crosses under Dehler Road

at the intersection with Beacon Road. The channel heads northeast at this point for roughly 100 yards before being blocked by a large berm (water bar), which is used as a soil conservation measure to prevent soil loss from erosion. Further down slope of this point the channel eventually fades away and no longer exists, having been plowed through for agricultural purposes.

Because the above described channel section dead ends and does not flow into a fish bearing stream or other regulated water, it is our interpretation that this channel section would not fall under DSL jurisdiction. Please provide written response for the project file.

Initials: ejro

File Name: P:\P\PPME00000001\0600INFO\0670Reports\0670 ExJ\0670 ExJ WetDelin\Memo-Wtlnd_analsys_adtnl_stdy_area060607.doc

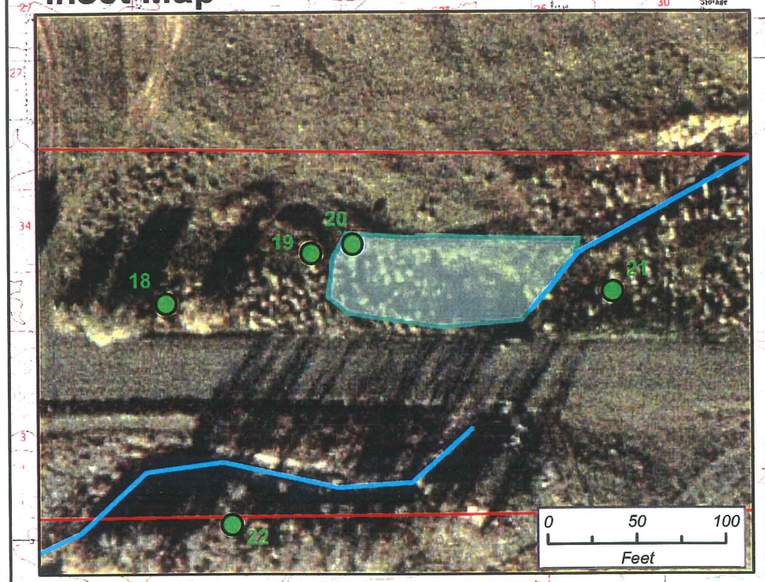
Klondike III Wind Project

Wetland Delineation

Figure 3

Wetland Delineation

Inset Map



Emigrant Springs Rd

Dehler Rd

Beacon Rd

Sandon Rd

Gosson Ln

Smith Ln

Hwy 206

Klondike Ln

McDonald

Ferry Ln

Not Leased

Not Leased

Inset Map

Spanish Hollow

Canyon

GRASS

CANYON

A B C D E F G H I J K

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18-22 23 24 25

Legend

- Wetland Survey Plot
- Mapped Intermittent Stream
- Lease Boundary
- Wetland Area
- Wetland Analysis Area (Previous)
- Drainage Crossings Reviewed (6-7-06)
- Wetland Analysis Area (New, reviewed 6/7/06)

0 0.5 1 2 Miles

P:\P\PPME00000001\0600INFO\GS\arcmap\figures\fig_j3_wetland_delineation_063006.mxd

EXHIBIT K

LAND USE
OAR 345-021-0010(1)(k)

TABLE OF CONTENTS

K.1 INTRODUCTION AND LAND USE REVIEW PATH

OAR 345-021-0010(1)(k) *Information about the proposed facility's compliance with the statewide planning goals adopted by the Land Conservation and Development Commission, providing evidence to support a finding by the Council as required by OAR 345-022-0030. The applicant shall state whether the applicant elects to address the Council's land use standard by obtaining local land use approvals under ORS 469.504(1)(a) or by obtaining a Council determination under ORS 469.504(1)(b). An applicant may elect different processes for an energy facility and a related or supporting facility but may not otherwise combine the two processes. Notwithstanding OAR 345-021-0090(2), once the applicant has made an election, the applicant may not amend the application to make a different election. In this subsection, "affected (sic) local government" means a local government that has land use jurisdiction over any part of the proposed site of the facility.*

Response: To issue a site certificate, the Oregon Energy Facility Siting Council (Council) must find that the proposed facility complies with the statewide land use planning goals (goals) adopted by the Land Conservation and Development Commission (LCDC). OAR 345-022-0030(1). The Certificate Holder elected to seek a Council determination of compliance with the Council's land use standard under ORS 469.504(1)(b) when it sought issuance of the Site Certificate, and the Certificate Holder now seeks a similar Council determination for purposes of this First Request for Amendment. Under ORS 469.504(1)(b)(A)-(C), the application complies with the Council's land use standard if the Council determines that:

1. *The proposed facility complies with applicable substantive criteria from the affected local government's acknowledged comprehensive plan and land use regulations that are required by the statewide planning goals and in effect on the date the application is submitted, and with any Land Conservation and Development Commission administrative rules and goals and any land use statutes directly applicable to the facility under ORS 197.646(3);*

2. *For an energy facility or a related or supporting facility that must be evaluated against the applicable substantive criteria pursuant to subsection (5) of this section, that the proposed facility does not comply with one or more of the applicable substantive criteria but does otherwise comply with the applicable statewide planning goals, or that an exception to any applicable statewide planning goal is justified under subsection (2) of this section; or*

3. *For a facility that the council elects to evaluate against the statewide planning goals pursuant to subsection (5) of this section, that the proposed facility complies with the applicable statewide planning goals or that an exception to any applicable statewide planning goal is justified under subsection (2) of this section.*

Pursuant to ORS 469.504(1)(B)(A) above, this Exhibit K demonstrates that the amended facility complies with the applicable substantive criteria from the Sherman County (County) acknowledged comprehensive plan and land use ordinances, with applicable

LCDC administrative rules and goals, and with any land use statutes directly applicable to the amended facility. Pursuant to ORS 469.504(1)(b)(B) above, this Exhibit K also demonstrates that an exception to statewide planning goal 3, agriculture, for purposes of this amendment request, is justified under ORS 469.504(2).

K.2 LAND USE ANALYSIS AREA AND MAP

OAR 345-021-0010(1)(k)(A) *Include a map showing the comprehensive plan designations and land use zones of the facility site, all areas that may be temporarily disturbed by any activity related to the design, construction and operation of the proposed facility and property adjacent to the site.*

Response: Figure K-1 is a map that shows the facility's location, the Sherman County Comprehensive Plan ("SCCP" or "Comprehensive Plan") designations and County land use zone of the facility site, all areas of the site that may be temporarily disturbed during the design, construction or operation of the proposed facility, property adjacent to the site, and a half-mile study corridor around all of the proposed facilities. This map has been revised to reflect the expanded site boundary.

K.3 ENERGY FACILITY AND RELATED OR SUPPORTING FACILITIES

With this amendment request, the Klondike III Project would be amended so as to reconfigure the alignment of some turbine strings and roads, add an alternate O&M building location, and add temporary disturbance resulting from crane paths, underground collector system, and staging areas. The amendment would also add a turbine type and increase the generating capacity to 283 MW. The amendment would expand the site boundary to allow for additional temporary and permanent impacts, as detailed in Exhibit P, Attachment 3. Otherwise, the project site continues to be located in Sherman County approximately 4 miles east of Wasco, Oregon, on private land that has been leased by Klondike III to develop the project. The project site continues to consist of relatively level privately owned agricultural land, primarily in dry land wheat production. Farming operations will continue directly adjacent to the reconfigured turbine strings and access roads. The turbines strings and most of the roadways are located in the existing the micro-siting corridors, which the Council already determined minimizes disruption to existing farm operations. The amended project will preclude farming on approximately 7.1 acres of farmland. The following table shows the loss of agricultural land during the life of the amended project caused by each project component:

Turbines/turbine towers/turbine pads:	8.0
Underground collector lines not in roads (3'+ deep):	0.0
Klondike III O&M facility and substations:	8.0
New access roads and upgrades/associated underground collector lines:	61.7
Above ground collector line/met towers:	0.0
TOTAL:	77.7

The amended project components are described in more detail in Section 1.c of the Amendment Request.

K.4 COUNCIL DETERMINATION ON LAND USE

OAR 345-021-0010(1)(k)(C) *If the applicant elects to obtain a Council determination on land use:*

a. Identify the affected local government(s);

Response: The amended facility, including the expanded site boundary, will be sited solely in Sherman County, which is the affected local government.

b. Identify the applicable substantive criteria from the affected local government's acknowledged comprehensive plan and land use regulations that are required by the statewide planning goals and that are in effect on the date the application is submitted and describe how the proposed facility complies with those criteria;

Response: The amended facility, including the expanded site boundary and all related or supporting facilities will be located within the Exclusive Farm Use (F-1) base zone (EFU zone). *See* Figure K-1. The Natural Hazards Combining District (Combining District) associated with Grass Canyon extends slightly into an area south of Webfoot. The amended project would not be built on any identified hazard area so the Combining District does not apply. *See* ASC Exhibit H, which indicates that, based on review of local geology, there are no mapped faults on the project site, and the risk of ground rupture due to fault displacement in the project vicinity is low. In addition, rock is present at shallow depths, and the groundwater table is deep. Considering these site conditions, the potential for earthquake-induced landslides, lateral spreading, liquefaction and settlement/subsidence at the site are low. Moreover, ASC Exhibit H also concludes that non-seismic geologic hazards, including slope instability and landslides, are not geologic hazards that will impact the project due to site conditions. The amended facility complies with the applicable review criteria set forth in the SCCP and in the County Zoning Ordinance (SCZO or Zoning Ordinance) in the manner described below.

c. Identify all Land Conservation and Development Commission administrative rules, statewide planning goals and land use statutes directly applicable to the facility under ORS 197.646(3) and describe how the proposed facility complies with those rules, goals and statutes.

Response: The acknowledged Comprehensive Plan and Zoning Ordinance incorporate all of the LCDC administrative rules, goals and statutes that are applicable to the project.

d. If the proposed facility might not comply with all applicable substantive criteria, identify the applicable statewide planning goals and describe how the proposed facility complies with those goals.

Response: As is described below, the amended project complies with all of the applicable substantive criteria and, thus, the application does not directly apply the statewide planning goals to the project.

e. *If the proposed facility might not comply with all applicable substantive criteria or applicable statewide planning goals, describe why an exception to any applicable statewide planning goal is justified, providing evidence to support all findings by the Council required under ORS 469.504(2).*

Response: The amended project complies with all of the applicable substantive criteria and applicable goals, except that Klondike III proposes an exception to goal 3 because the amended project, with the expanded site boundary, will occupy more than 20 acres of non-high value farm land. Klondike III provides evidence herein that justifies the exception. This evidence is the same evidence that the Council relied on in determining the original project was in compliance with the land use standard.

K.5 ZONING ORDINANCE CRITERIA

1. SCZO Section 3.1.3—Conditional Uses Permitted in County EFU Zone

SCZO Section 3.1.3(e) and (f), respectively, allow commercial utility facilities and transportation improvements to be developed in the EFU zone as conditional uses. Specifically, these sections provide as follows:

> 2. Conditional Uses Permitted. In an F-1 zone the following uses are permitted when authorized in accordance with the requirements of Article 5 of this Ordinance and this Section:
>
> * * *.
>
> (e) Operations conducted for the following uses:
>
> * * *.
>
> 17) Commercial utility facilities.
>
> * * *.
>
> (f) Transportation Improvement.
>
> *1) Construction, reconstruction, or widening of highways, roads, bridges or other transportation projects that are (1) not improvements designated in the Transportation System Plan; or (2) not designed and constructed as part of a subdivision or planned development subject to site plan and/or conditional use review. Transportation projects shall comply with the Transportation System Plan and applicable standards, and shall address the following criteria.* * * *
>
> *A. The project is designed to be compatible with existing land use and social patterns including noise generation, safety, and zoning.*

B. The project is designed to minimize unavoidable environmental impacts to identified wetlands, wildlife habitat, air and water quality, cultural resources, and scenic qualities.

C. The project preserves or improves the safety and function of the facility through access management, traffic calming, or other design features.

D. The project includes provision for bicycle and pedestrian circulations as consistent with the comprehensive plan and other requirements of this ordinance.

* * *.

Response:

A. Commercial Utility Facilities. With this First Amendment Request, the Certificate Holder proposes modifications that would reconfigure the alignment of some turbine strings and roads, add an alternate O&M building location, and add temporary disturbance resulting from crane paths, underground collector system, and staging areas. The amendment would also add a turbine type and increase the generating capacity to 283 MW. For the same reasons that the Council already determined that the Project and the related and supporting facilities as originally proposed were conditionally permitted by the County as "commercial utility facilities," the amended project facilities are also conditionally permitted. See ASC, Exhibit K.

B. Transportation Improvements. Zoning Ordinance 3.1.3(f) allows the "construction, reconstruction, or widening of highways, roads, bridges or other transportation projects that are (1) not improvements designated in the Transportation System Plan; or (2) not designated and constructed as part of a subdivision or planned development subject to site plan and/or condition use review . . . . " Transportation projects must comply with the Transportation System Plan (TSP) and applicable standards and must address four criteria: (i) the project's compatibility with existing land use and social patterns including noise generation, safety and zoning; (ii) the project's design must minimize unavoidable environmental impacts to wetlands, wildlife habitat, air and water quality, cultural resources, and scenic qualities; (iii) the project must preserve or improve the safety and function of the facility through access management, traffic calming, or other design features; and (iv) the inclusion of bicycle and pedestrian circulations as consistent with the Comprehensive Plan and other requirements of the Zoning Ordinance.

The proposed realignment of the access roads are not improvements designated in the TSP, and are not being constructed as part of a subdivision or planned development. The amended project continues to be compatible with existing land uses and social patterns including with respect to its level of noise generation, its

safety and its zoning. As discussed in this Exhibit K, the amended project is designed to minimize environmental impacts to identified wetlands, wildlife habitat, water quality, cultural resources, and scenic qualities. The project preserves or improves the safety and function of the existing roads by resurfacing or restructuring selected area roads and highways. No bicycle or pedestrian circulations are appropriate for the project area roads and, therefore, none are proposed.

2. Provisions Applicable to All Permitted and Conditionally Permitted Uses (All Facility Components)

The SCZO contains provisions that are applicable to all development proposals. The amended Facility complies with these provisions as provided below.

A. SCZO § 3.1.4(c)—Dimensional Standards/Setback Requirements

In an F-1 (EFU) Zone, the minimum setback requirements shall be as follows:

1) The front and rear setbacks from the property line shall be 30 feet, except that the front yard setback from the right-of-way of an arterial or major collector or road shall be 50 feet unless approved otherwise by the Planning Commission.

2) Each side yard setback from a property line shall be a minimum of 25 feet, and for parcels or lots involving a non-farm residential use with side yard(s) adjacent to farm lands, said adjacent side yards shall be a minimum of 50 feet unless approved otherwise by the Planning Commission.

Response: No new lots will be created by the amended facility. Consistent with the Council's prior Final Order and the current Site Certificate, all facility structures will comply with applicable setback requirements set forth in SCZO 3.1.4(c).

B. SCZO § 4.9(1) – Compliance with State and Federal Agency Rules and Regulations

Approval of any use or development proposal pursuant to the provisions of this Ordinance shall require compliance with and consideration of all applicable State and Federal agency rules and regulations.

Response: The Council's rules governing this amendment request are designed to identify all applicable permits, approvals and regulations needed for construction of the amended facility. In particular, the ASC Exhibit E identifies all of the federal, state and local permits and approvals needed to construct the facility. ASC Exhibit E provides evidence demonstrating that the construction and operation of the facility will comply with all state and local statutes, rules and

standards applicable to the permit. ASC Exhibit E also provides evidence that for federal permits, the relevant federal agencies have received or will receive the information needed to allow the facility to comply with all applicable federal rules and regulations. This amendment request does not trigger any additional permitting or approval process not already described in the ASC Exhibit E. Note that as described in Exhibit I, Attachment 3, the Certificate Holder is pursuing an amended 1200-C permit. Further, to the extent that the Certificate Holder were to construct the alternate O&M facility, it would require an onsite sewage permit from the Wasco-Sherman Public Health Department. See ASC Exhibit E.

C. SCZO § 4.13 Additional Conditions to Development Proposals

The County may require additional conditions for development proposals

1) The proposed use shall not reduce the level of service (LOS) below a D rating for the public transportation system. For developments that are likely to generate more than a V/C ratio of 75 or greater, the applicant shall provide adequate information, such as a traffic impact study or traffic counts, to demonstrate the level of impact to the surrounding road system. The developer shall be required to mitigate impacts attributable to the project.

2) The determination of the scope, area, and content of the traffic impact study shall be coordinated with the provider of the affected transportation facility, i.e., city, county, state.

3) Dedication of land for roads, transit facilities, sidewalks, bikeways, paths or accessways shall be required where necessary to mitigate the impacts to the existing transportation system caused by the proposed use.

4) Construction of improvements such as paving, curbing, installation or contribution to traffic signals, construction of sidewalks, bikeways, accessways, paths or roads that serve the proposed use where necessary to mitigate the impacts to the existing transportation system caused by the proposed use.

Response: The Certificate Holder will comply with all conditions of approval imposed by the Council should the Council approve this amendment request. Klondike III addresses the transportation and access provisions under the applicable review criteria set forth below. The amended project will not reduce the level of service for public transportation below a D rating, or generate a volume-to-capacity (V/C) ratio of 75 or greater. It is not necessary for Klondike III to dedicate any land for transportation facilities, nor for any road mitigation improvements other than the reconstruction of existing roads proposed in the original application.

D. SCZO § 11.1 Design & Improvement Standards and Requirements, Compliance Required

Any land division or development and the improvements required, whether by subdivision, partitioning, creation of a street or other right of way, zoning approval, or other land development requiring approval pursuant to the provisions of this Ordinance, shall be in compliance with the design and improvement standards and requirements set forth in this Article, in any other applicable provisions of this Ordinance, in any other provisions of any other applicable County or affected City ordinance, and in any applicable provision of State statutes or administrative rules.

Response: The Council's rules governing the amendment process are designed to identify all applicable design and improvement standards, permits, approvals, and regulations needed for construction of the amended facility. In particular, ASC Exhibit E identifies all of the federal, state, and local permits and approvals needed to construct the facility, and elsewhere in this Exhibit K all of the applicable County design standards are identified. No land division, subdivision, or partition approval or creation of a public street is required in order to site the amended project. For the reasons described in this Exhibit K and elsewhere in this amendment request, the amended facility complies with this provision.

E. SCZO § 11.2 Design & Improvement Standards and Requirements, Zoning or Other Land Development Permit or Approval

Prior to the construction, alteration, reconstruction, expansion or change of use of any structure, lot or parcel for which a permit or other land development approval is required by this Ordinance, a permit or approval shall be obtained from the County or the designated official.

Response: The Council has exclusive jurisdiction to issue site certificates for energy facilities that are under its jurisdiction, such as the proposed facility. Klondike III elected to seek a Council determination of compliance with the Council's land use standard for purposes of the original ASC and for purposes of this amendment request. This Exhibit K demonstrates compliance with that standard for this amendment request. Upon the Council's approval of an amended Site Certificate for the facility and prior to any development activities authorized by the amendment, the Council will direct the County to issue all necessary land use permits approved by the Council. *See* ORS 469.401(3). No construction, alteration, reconstruction, expansion or change of use of any structure, lot or parcel as authorized by an Amended Site Certificate will occur until the County issues the required permits.

3. SCZO Section 5.2 General Conditional Use Provisions (Energy Facility, Access Roads, and Associated Equipment)

In determining whether or not a Conditional Use proposal shall be approved or denied, it shall be determined that the following criteria are either met or can be met through compliance with specific conditions of approval.

1) The proposal is compatible with the applicable provisions of the County Comprehensive Plan and applicable Policies.

2) The proposal is in compliance with the requirements set forth by the applicable primary zone, by any other applicable combining zone, and other provisions of this Ordinance that are determined applicable to the subject use.

3) That, for a proposal requiring approval or permits from other local, state and/or federal agencies, evidence of such approval or permit compliance is established or can be assured prior to final approval.

4) The proposal is in compliance with specific standards, conditions and limitations set forth for the subject use in this Article and other specific relative standards required by this or other County Ordinance.

5) That no approval be granted for any use which is or expected to be found to exceed resource or public facility carrying capacities, or for any use which is found to not be in compliance with air, water, land, and solid waste or noise pollution standards.

6) That no approval be granted for any use violation of this Ordinance.

Response: Each criterion is addressed separately below.

K.6 COMPLIANCE WITH APPLICABLE COMPREHENSIVE PLAN PROVISIONS

1. SCZO § 5.2.1. Compliance with Applicable Comprehensive-Plan Goals and Policies

The proposal is compatible with the applicable provisions of the County Comprehensive Plan and applicable policies.

Response: The amended facility complies with all relevant provisions of the Comprehensive Plan as set forth below.

A. SCCP § VIII Planning Process and Citizen Involvement

Finding I. This Plan was drafted to conform with the State-wide planning goals relating to citizen involvement (goal 1) and land use planning (goal 2).

Response: The Council's process for considering and approving a request to amend a site certificate provides significant opportunity for citizen involvement that comply with statewide goals 1 and 2.

Goal II. To provide the opportunity for all citizens and effected [sic] agencies to participate in the planning process.

Policy I. All land use planning meetings shall be advertised in a general circulation newspaper and be open to the public.

Policy II. All effected [sic] agencies and effected [sic] landowners shall be notified by written notice of any proposed site specific land use change.

Response: Because the Certificate Holder has elected to seek a Council determination of compliance with the land use standard for purposes of this amendment request, the Council's procedures (rather than the County's specific procedures at SCZO § 5.6) will apply to the land use determination. The Council's process includes opportunities for interested persons and governmental agencies to comment on the amendment request.

B. SCCP § XI Physical Characteristics

Goal V. Improve or maintain the existing quality of the physical environment within the County.

Policy I. The County Court recognizes the Policy Advisory Committee and the Agricultural Sub-Committee recommendations for a state-wide non-point source pollution control program as the appropriate implementation technique to achieve the intent of Public Law 95.217.

Policy II. Erosion control provisions shall be incorporated into the subdivision ordinance. These shall require that the best practical methods be used to control erosion from road and building construction sites as well as other changes in land use which may degrade the quality of the land, air and water.

Response: The amended facility will maintain the existing quality of the physical environment within the County. Construction of the amended facility will not create a pollution source. The majority of the amended project site consists of agricultural fields where bare soils are often exposed to wind and water. The amended project will not significantly increase the amount of exposed soils in the project area. *See* ASC Exhibit I; Exhibit I, Attachment 3.

Temporary impacts to land within the project area will occur with the creation of the staging areas and excavation for underground collector lines. To minimize soil exposure during installation of the collector lines, the Council has already imposed conditions on the Certificate Holder, and those conditions are equally applicable to the expanded site boundary. See Exhibit I, Attachment 3.

Establishing the additional proposed staging areas will involve stripping and temporarily stockpiling topsoil before placing gravel on the laydown areas. Because stockpiling will occur during the time of year when rainfall is lowest, very little erosion will result from precipitation. Construction of the amended facility will be conducted pursuant to a NPDES General Construction Stormwater (1200-C) Permit issued by the DEQ. The NPDES permit will require the use of best management practices to minimize the potential for erosion.

As with the currently authorized project, best management practices will be used to minimize the impacts of wind erosion to the expanded area. In actively farmed areas, the wheat crop will protect the stockpiles from wind erosion. In other areas, hay bales or other similar containment features will be used during construction of the project. As needed, water from water trucks will be sprayed on disturbed areas to keep wind borne erosion losses to a minimum. After the need for the staging areas ends, the staging area locations will be brought back to their original contours, topsoil will be spread in these areas, and they will be revegetated or prepared for planting of wheat or barley, or for use as range land. Any disturbed Conservation Reserve Program (CRP) areas and other non-cropped vegetated areas will be revegetated with the appropriate species.

Impacts associated with washdown are discussed in ASC Exhibit V and are addressed in existing conditions. No additional impacts are anticipated from this First Request to Amend the Site Certificate.

Goal VI. To protect life and property from natural disasters and hazards.

Response: The amended project site involves no designated hazard areas.

Goal VII. Provide for the rational development and conservation of the aggregate resources within the County.

Response: No known aggregate resource sites are located within or immediately adjacent to the amended project site.

Goal VIII. To provide a detailed investigation of the County's groundwater resources.

Response: The amended facility will use a small amount of groundwater. The alternate O&M facility, if constructed, will be served by a new well. No permit is required to draw from this well because Oregon law allows the project to use up to 5000 gallons of water per day from a groundwater well without a water right or permit.

Goal IX. To maintain the multiple use management concept on Bureau of Land Management Lands within Sherman County.

Response: The amended project site does not include any BLM lands.

Goal X. Preserve the integrity of the Sherman County Landscape.

Policy I. Trees should be considered an important feature of the landscape and therefore the County Court shall encourage the retention of this resource when practical.

Response: The amended facility site, including the expanded area, occurs in a largely treeless landscape. The facility is not expected to impact trees. Upland trees were located near Emigrant Springs, Webfoot, and scattered residences throughout the study area, but do not exist within footprint of the amended project. Development of the project will not require the removal of any trees. *See* ASC Exhibit P; Exhibit P, Attachment III.

Goal XI. To maintain all species of fish and wildlife at optimum levels and prevent the serious depletion of any indigenous species.

Policy I. Fish and Wildlife management policies should be implemented to enhance the public enjoyment of wildlife and fish in a manner that is compatible with the primary uses of the lands and waters.

Response: The Energy Facility Siting process requires the Certificate Holder to consider and comply with the ODFW Fish and Wildlife Habitat Mitigation Policy as set forth in OAR 635-415-0000 through -0025 in seeking this amendment. As part of the process, the Certificate identified and categorized all fish and wildlife habitats within the habitat analysis area for the expanded analysis area. There are no Category 1 habitats in the expanded analysis area, and as such, none will be impacted. At the same time, the bulk of the habitat to be impacted by the Project as amended is Category 6 agricultural habitat. The Certificate Holder has proposed to mitigate for all impacts in accordance with the ODFW Policy, as set forth in Exhibit P, Attachment III, and as provided in the existing Site Certificate. Moreover, based on pre-field reviews and the fish and wildlife habitat analysis, there are no anticipated impacts to threatened and endangered species from the construction, operation, and retirement of the amended project, as set forth in Exhibit Q, Attachment 3.

Policy III. Fence rows, ditch banks and brush patches should be considered for retention of wildlife use.

Response: No fence rows, ditch banks or brush patches would be affected by the amended project as the amended project site is primarily in large-scale wheat crop production.

Policy IV. The existing habitat plantings and water developments constructed for wildlife use shall be maintained by the Oregon Department of Fish and Wildlife. Additional planting and guzzler developments will be encouraged. Long-term agreements between landowners and the Department of Fish and Wildlife for the maintenance of such sites shall be encouraged.

Policy V. The County Extension agent shall encourage the use of pesticides, which have a low toxicity to wildlife, fish and people.

Response: As described in Exhibit P, Attachment 3, the expanded study area provides only limited wildlife habitat. Therefore, the amended project is not expected to have a significant impact on wildlife populations. A monitoring plan will be developed in consultation with ODFW to evaluate actual amended project impacts, consistent with current Site Certificate conditions.

Goal XII. Provide for the rational use of all resources within the designated Deschutes and John Day Oregon State Scenic Waterways.

Response: ASC Exhibit T evaluates impacts to recreation resources. The amended project site is not located in or near either the Deschutes or John Day scenic waterway. *See* Exhibit R, Attachment 3. Primary traffic routes for construction will continue to originate near the I-84/US 97 Biggs Junction. Increased construction traffic would likely result in short-term traffic delays on these roads, particularly on hill climbs on US 97, but would not be detrimental to recreational opportunities near the Deschutes or the John Day scenic waterway. Long-term detrimental impacts (i.e., increased traffic as a result of operation) are not anticipated, and the expanded site boundary should not affect the prior traffic analysis in any manner.

Goal XIII. Attempt to maintain the diversity of plan[t] and animal species within the County.

Policy I. The following sites or areas shall be considered as critical habitat, unique vegetative and/or natural areas: Department of Fish and Wildlife plantings and guzzlers; and areas containing plant species listed on either the Provisional List of Endangered or Threatened Plant Species or the listing of Endangered and Threatened Plant Species in the United States.

*Policy II. The County Court shall encourage the preservation of these critical habitats, unique vegetative and/or natural areas. Landowners will be encouraged to provide long term protection to these areas. * * *.*

Response: As described in Exhibits P and Q of Attachment 3, the amended facility is not expected to significantly affect any listed endangered or threatened species or adversely affect fish and wildlife species or habitat. As described in Exhibit Q, Attachment 3, there are no direct project-related impacts to any federal or state listed species, and there is little or no habitat in the amended project area to support such species. A monitoring plan will be developed in coordination with ODFW to evaluate actual project impacts as provided for by existing conditions in the Site Certificate.

C. SCCP § XII Social Characteristics

Goal XIV. To improve or maintain the current level of social services available within the County and to assure the provision of public facilities consistent with the intensity of land use.

Policy I. *The County Court shall encourage the location of industries, businesses and commercial service agricultural developments within the County consistent with the desired population growth and other goals and policies herein contained.*

* * *

Policy XIX. *The continuing loss of economic opportunities for residents of the County is of great concern to the citizenry. The reduction of need for agricultural based jobs due to improved farming technology and practices, the inability to keep families employed or offer employment opportunities to attract new citizens or the children of existing residents results in a stagnant or declining population. It is therefore a matter of great urgency that the County Court make every effort to streamline its land use approval and amendment process. It is likewise a matter of great urgency that the Court give increased consideration to land use applications which will increase economic diversity and employment opportunities. This increased consideration shall not be made to the detriment of existing residential structures. This consideration should focus on long term job creation and should not be used as a means to allow residential and commercial uses to locate outside urban growth and rural service center (communities) boundaries.*

Response: Regarding Policy I, ASC Exhibit U indicates that the personnel necessary to operate the facility who move to the Sherman County area from other areas would not have a significant impact on the local population. During its anticipated 20 to 30-year operation, the project would employ 15 to 20 full-time and part-time employees. If, for example, the project employed 20 people and 60 percent of them relocated from outside the analysis area, approximately 29 new residents (12 new employees x 2.43 average persons per household) would be added to Sherman County's population, assuming all relocated within the County. The amended project should have no effect on the prior ASC Exhibit U analysis.

Project construction is anticipated to take about 8 months and employ an estimated 100 to 120 workers at peak construction periods, with approximately 50 percent of these workers expected to be local employees. Construction workers will include locally hired workers for road and turbine pad construction as local expertise and availability allows. The remaining workers used to construct the project will be in-migrant. When feasible, preference will be given to local workers. Again, the amended project should have no effect on the prior analysis.

Development of the amended facility will increase economic diversity within the County and offer non-agricultural employment opportunities for local residents. Operation of the amended facility is projected to produce additional tax revenue for the County. This additional tax revenue would contribute to improved local services like roads, schools, police and fire, that benefit the entire area while the project is not anticipated to have any

significant new impact to public facilities or services. The changes proposed in the First Request for Amendment do not alter the Council's previous findings with respect to these matters.

[Goal XIV] Policy IV. *The County will support and assist efforts to secure adequate hospital or emergency clinic facilities to serve the needs of the local residents.*

* * *

Policy VI. The County Court shall continue to cooperate with the school districts within the County to assure the provision of educational facilities in an efficient manner consistent with the demands of the Sherman County populace.

* * *

Policy VIII. Sanitary landfills shall continue to be provided for the use of the County citizenry. The County will continue to provide the leadership in the location and development of such sites.

Response: The amended facility is not expected to have any adverse impacts on the availability of social services, such as hospital or emergency service facilities, educational facilities or sanitary landfills. ASC Exhibit U evaluates the capacity of service providers in the project area. Sunrise Disposal and Recycling provides solid waste service for all of Sherman County, including the existing O&M facility for Klondike I and for portions of Gilliam County. Sunrise Disposal also operates a transfer station that is open to the public on the second and fourth Saturdays of each month. Refuse and recycling is transported via truck to the Columbia Ridge Recycling and Landfill site located near Arlington. Columbia Ridge is a large regional facility that accepts refuse from both Oregon and Washington. The proposed expansion of the facility should not affect the prior analysis in any meaningful way.

Solid waste generated in the construction and operation of the proposed facility is described in ASC Exhibit V. The amended project will generate minimal construction waste and very little solid waste that would require off-site disposal. The nearest landfill is the Columbia Ridge Recycling and Landfill Center located near Arlington. The landfill is not projected to reach capacity for at least 56 years and conversations with landfill operators did not identify any concerns regarding solid waste generation from construction or operation of the Klondike III project. Again, the proposed expansion of the facility should not affect the prior waste generation analysis.

[Goal XIV] Policy X. The County road system shall be maintained and improved consistent with the needs of the Sherman County citizenry.

Policy XII. The construction of new public roads and highways shall be located whenever possible to avoid dividing existing farming units.

Response: No new public roads or highways will be constructed as part of the amended project. The design for the private access roads and for the improvements to existing

public roads have been developed by the Certificate Holder. There are no additional effects to the public road system as a result of the First Request for Amendment.

[Goal XIV] Policy XX. Transportation Planning Policies (Ord No. 21-05-2003

A. The Transportation System Plan and Land Use Review Policies.

2. All development proposals, plan amendments, or zone changes shall conform with the adopted Transportation System Plan.

3. Operation, maintenance, repair, and preservation of existing transportation facilities shall be allowed without land use review, except where specifically regulated.

* * *.

Response: No new public roads are proposed with this amendment request and, thus, no roads that would not conform with the County's Transportation System Plan. The original project absent the amendment will result in upgrades to existing public and private roads, which either meet or exceed the road classification standards for the roads that have a classification. This outcome is unchanged by the amendment request.

* * *.

B. Local-State Coordination Policies

2. The County shall provide notice to ODOT of land use applications and development permits for properties that have direct frontage or direct access onto a state highway. Information that should be conveyed to reviewers includes project location, proposed land use action, and location of project access points.

* * *.

C. Protection of Transportation Facilities Policies

* * *.

2. The County shall include a consideration of a proposal's impact on existing or planned transportation facilities in all land use decisions.

3. The County shall protect the function of existing or planned roadways or roadway corridors through the application of appropriate land use regulations.

Response: With the exception of one access road, the amended project will not have direct frontage or direct access onto any state highway. Klondike III will notify the Oregon Department of Transportation (ODOT) about this access road's direct frontage on

a state highway. The amendment request does not alter frontage or access impacts that were previously analyzed in the ASC.

All road work will be conducted in compliance with the amended project's erosion control plan as part of the facility's NPDES Construction Stormwater (1200-C) Permit. The erosion control plan will include "best management practices" for erosion control during and after construction, and permanent drainage and erosion control facilities as necessary to allow stormwater passage without damage to local roads or to adjacent areas and without increasing sedimentation to any intermittent streams in the vicinity of the project. See Exhibit I, Attachment 3.

Constructing project roads will require substantial amounts of sand and gravel, including the realigned roads part of the First Request for Amendment. The Certificate Holder will contract with one or more construction companies to improve existing and construct new access roads. The construction contractor will be responsible for locating and providing aggregate for construction.

Goal XV. To protect historical, cultural and archeological resources from encroachment by incompatible land uses and vandalism.

Policy I. The following areas and structures shall be considered historically, archaeologically or culturally significant: all archeological sites; the Sherman County Courthouse; portions of the Old Oregon Trail which are visible and pass over rangeland; and the old Union Pacific Railroad bed through DeMoss Park.

Policy II. The County Court shall encourage the preservation of these archaeologically or culturally significant areas. Landowners will be encouraged to provide long term protection to these areas.

Response: Exhibit S in Attachment 3 sets forth the results of the cultural resources survey conducted for the expanded project area. Based on the survey and the amended project developments, the Certificate Holder will avoid any newly identified sites. Therefore, the Certificate Holder is proposing no additional impact and no additional mitigation measures. See Exhibit S, Attachment 3. The survey results and approach satisfies the applicable Goal and Policy requirements as well.

D. SCCP § XIII Housing

Goal XVI. To encourage the provision of sound affordable housing units for the citizenry of the County.

Response: As described in ASC Exhibit U, the facility is not expected to affect long-term housing availability in the County. The amended facility, including the expanded boundary, does not anticipate additional workers, when compared to the currently permitted facility, that would affect housing availability.

E. SCCP § XIV Economics

Goal XVII. Diversify the economic base of the County and maintain the viability of the agricultural sector.

* * *.

Policy II. Appropriate provisions shall be incorporated into the zoning, subdivision and other necessary ordinances to assure conservation and retention of agricultural lands in agricultural uses. At a minimum, agricultural lands shall be zoned as exclusive farm use and taxed accordingly.

Response: The amended project will substantially contribute to the diversification of the County's economic base. Allowing the development of the amended project is consistent with the purposes of the EFU zone, which allows for the development of commercial utility facilities as a conditional use. Further, the amended project will result in a net benefit to farm incomes. The minimal loss of farm income based on the limited amount of land that the amended project proposes to withdraw from farm production will be more than offset by revenue to local farmers from wind turbine leases. The analysis used in the ASC Exhibit K is also applicable to the proposed amended facility.

F. SCCP § XV Energy

Goal XVIII. Conserve energy resources.

Policy I. Cooperate with public agencies and private individuals in the use and development of renewable resources.

Policy III. New high voltage electrical transmission lines with nominal voltage in excess of 230 kV and gas transmission line shall be constructed within or adjacent to the existing electrical and gas transmission line right-of-way, respectively. Upon approval of the County Court, the General Standards for Issuance of Site Certificates, Energy Facility Siting Council (OAR 345-80-010 through OAR 345-80- 051) may be utilized for proposals deviating from the existing rights-of-way will be considered a plan amendment and subject to the approval of the Sherman County Court.

Response: The amended project is a renewable wind resource project. The County has recognized that it has "solar and wind resources which have not been utilized since widespread use of electricity was introduced." Comprehensive Plan § XV Finding III. This amendment request represents a further opportunity to develop these resources.

Wind power is a clean and renewable source of energy. Wind facilities do not emit greenhouse gases or particulates, do not produce hazardous wastes, and do not deplete

other natural resources. The construction of the amended project represents an implementation of Policy I.

This amendment request does not propose a high voltage electrical transmission line as that term is defined at ORS 469.300(11)(a)(C).

G. SCCP § XVI Land Use

Goal XIX. To provide an orderly and efficient use of the lands within Sherman County.

* * *

Policy IV. Commercial businesses, except those related to agricultural uses, should be located within the incorporated cities or within areas served by the Biggs or Kent special service districts.

Response: The County's EFU zone expressly permits the amended project as a conditional use. The amended project is locationally dependent and, accordingly, cannot be located within any of the area's incorporated cities. Furthermore, the amended facility will not have a large impact on services in the County. Its co-location and compatibility with existing and ongoing agricultural activities provides an example of orderly and efficient land use.

H. Section XVII Comprehensive Land Use Plan Map

Cropland. Cropland is the "prime agricultural" lands within the County. Lands so designated shall be preserved for exclusive farm use. All uses, which are not directly or indirectly related to farm use shall be limited to those, which provide public service and could not be provided for within other lands.

Response: As noted above, the County's EFU zone expressly permits the amended project as a conditional use in the EFU zone. The amended facility is dependent on optimal wind resources and proximity to transmission facilities. Accordingly, it cannot be located within any of the nearby cities. The amended project will be co-located and compatible with existing and ongoing agricultural activities and other wind energy generating facilities. Although the amended project will permanently remove up to approximately 77.1 acres from agricultural enterprises, an exception to Goal 3 is warranted as described in this Exhibit K.

K.7 COMPLIANCE WITH ADDITIONAL ZONING ORDINANCE PROVISIONS

1. SCZO § 5.2.2 Compliance with Applicable Zoning Ordinance Provisions

The proposal is in compliance with the requirements set forth by the applicable primary Zone, by any other applicable combining zone, and other provisions of this Ordinance that are determined applicable to the subject use.

Response: The following criteria are applicable to the facility as described below.

A. SCZO § 3.1.3(f)(1)—Transportation Standards (Access Roads)

> 1) Construction, reconstruction, or widening of highways, roads, bridges or other transportation projects that are (1) not improvements designated in the Transportation System Plan; or (2) not designed and constructed as part of a subdivision or planned development subject to site plan and/or conditional use review. Transportation projects shall comply with the Transportation System Plan and applicable standards, and shall address the following criteria. * * *

a. The project is designed to be compatible with existing land use and social patterns including noise generation, safety, and zoning.

Response: The amendment request proposes to realign certain access roads consistent with realignments of the turbine strings within the existing micrositing corridors. The proposed private access roads are a conditionally permitted use in the EFU zone and will be compatible with the existing agricultural uses in the project area. SCZO 3.1.3(f). The new private access roads will be constructed to access the project facilities and will extend from the County roads as show in Figure C-2B. These roads will be 20 feet wide. During construction, an additional 10 feet on either side of the 20-foot road section will be temporarily disturbed in order to construct the private access roads, but will be returned to its prior vegetated condition upon completion of road construction. To the extent reasonably possible, these roads will be located adjacent to the turbine towers to minimize the length of these roads. The private access roads will not increase traffic in the area but will provide improved access by land managers and farmers to their fields. The analysis in the ASC Exhibit K is equally applicable for the amended facility and the realignment of the access roads.

b. The project is designed to minimize unavoidable environmental impacts to identified wetlands, wildlife habitat, air and water quality, cultural resources, and scenic qualities.

Response: Construction of the proposed roads within the expanded site boundary will not have any impact to CRP, grasslands or shrub-steppe habitat and will not have an adverse affect on wildlife. See Exhibit P, Attachment 3. Based on the wetland assessment, no impacts to wetlands and other waters of the state are anticipated as a result of the amended project. As demonstrated in Exhibits P and Q, Attachment 3, there is no suitable habitat for federal or state listed species. An updated cultural resource survey was conducted, and results are described in Exhibit S, Attachment 3. There will be no substantial adverse impacts on air quality from the construction or operation of the amended project. The construction activities for the amended project will create dust but this would not be significant in a rural area where farming also creates dust. Standard best management practices to control dust and wind erosion will be used, such as spraying areas of the site with water periodically. See Exhibit I, Attachment 3.

c. The project preserves or improves the safety and function of the facility through access management, traffic calming, or other design features.

Response: Several local roadways will be improved or completely reconstructed to accommodate project construction vehicles as part of the original Site Certificate, and the amendment request does not alter the planned improvements. Many of the existing local roads are in poor condition, so the planned improvements to existing roads will have a long-term beneficial effect for all of those who use these roads. There is little traffic on roads in the area, so access management, traffic calming or other such features designed to reduce traffic conflicts are not necessary.

d. The project includes provision for bicycle and pedestrian circulations as consistent with the comprehensive plan and other requirements of this ordinance.

Response: No bicycle or pedestrian facilities are required by the County to permit the amended project and none are appropriate for the project area. The access roads will be located in a rural agricultural area where pedestrian and bicycle facilities are not appropriate, safe, or required by the County's ordinances or plans.

B. SCZO § 4.13 Additional Conditions to Development Proposals (Access Roads)

The County may require additional conditions for development proposals.

> 1) The proposed use shall not reduce the level of service (LOS) below a D rating for the public transportation system. For developments that are likely to generate more than a V/C ratio of 75 or greater, the applicant shall provide adequate information, such as a traffic impact study or traffic counts, to demonstrate the level of impact to the surrounding road system. The developer shall be required to mitigate impacts attributable to the project.
>
> 2) The determination of the scope, area, and content of the traffic impact study shall be coordinated with the provider of the affected transportation facility, i.e., city, county, state.
>
> 3) Dedication of land for roads, transit facilities, sidewalks, bikeways, paths or accessways shall be required where necessary to mitigate the impacts to the existing transportation system caused by the proposed use.
>
> 4) Construction of improvements such as paving, curbing, installation or contribution to traffic signals, construction of sidewalks, bikeways, accessways, paths or roads that serve the proposed use where necessary to mitigate the impacts to the existing transportation system caused by the proposed use.

Response: The Certificate Holder will comply with all conditions of approval necessary to achieve compliance with the Zoning Ordinance and the Council's land use standard for

purposes of this amendment request. Once completed, the amended project will not generate a significant number of trips. Traffic levels on area roads are low and will not increase beyond the network capacity with the addition of amended project traffic. Thus, the amended project will not reduce the LOS in the area, will not generate V/C ratios of 75 or greater, and will not require the dedication of land for transportation facilities or the construction of mitigation improvements, other than the reconstruction and resurfacing of existing roadways described herein. According to the County, no traffic analysis was required due to the small expected impact on the transportation system of the original ASC, and this conclusion does not change with the changes requested in the First Request for Amendment of the Site Certificate.

C. SCZO § 4.14 Access Management (Access Roads)

Response: The access management provisions of the Zoning Ordinance do not apply to the amended project.

D. SCZO § 11.8 Design & Improvement Standards and Requirements, Streets and Other Public Facilities (Access Roads)

Response: The Council's rules governing the application are designed to identify all applicable design and improvement standards, permits, approvals and regulations needed for construction of the facility. In particular, ASC Exhibit E identifies all of the federal, state and local permits and approvals needed to construct the facility, and elsewhere in this Exhibit K all of the applicable County design standards are identified. No land division, subdivision or partition approval, or zone change is required in order to site the amended project. For the reasons described in this Exhibit K and in the application, the amended facility complies with this provision.

E. SCZO § 5.2.3 Other Permits

That, for a proposal requiring approval or permits from other local, state and/or federal agencies, evidence of such approval or permit compliance is established or can be assured prior to final approval.

Response: The Council's rules governing the application are designed to identify all applicable permits, approvals and regulations needed for construction of the facility. In particular, ASC Exhibit E identifies all of the federal, state and local permits and approvals needed to construct the project. ASC Exhibit E provides evidence demonstrating the construction and operation of the project will comply with all state and local statutes, rules and standards applicable to the permit. ASC Exhibit E also provides evidence that for federal permits, approvals and regulations the responsible agency has received that permit information. The amendment request does not result in additional permits not already described in ASC Exhibit E.

The Certificate Holder will send the following required notice to the FAA:

> **1. Federal Aviation Administration Notice.** Prior to beginning construction of the project, Klondike III will send the FAA a Notice of

Proposed Construction or Alteration to the FAA with the proposed location of the turbines and related or supporting facilities.

The Certificate Holder is likely to receive the following state and local approvals for construction of the amended project:

1. **Oregon Department of Environmental Quality.** Klondike III will apply for an amended NPDES General Construction Stormwater (1200-C) Permit before beginning construction under the amendment that is not already authorized by the current Site Certificate and the existing 1200-C Permit.

2. **Sherman County Sanitarian.** Klondike III will obtain an on-site sewage permit from the County sanitarian for the subsurface sewage disposal system for the alternate O& M building if Klondike III chooses to pursue this alternate site.

F. SCZO § 5.2.3 Compliance with Specific Standards

The proposal is in compliance with specific standards, conditions and limitations set forth for the subject use in this Article and other specific relative standards required by this or other County Ordinance.

Response: The facility complies with this criterion as described below.

2. SCZO § 5.8(14)—Specific Requirements for Nonfarm Uses in F-1 Zone, Public Facilities and Services (Energy Facility, Access Roads)

(a) Public facilities including, but not limited to, utility substations, * * * electrical generation and transmission devices * * * shall be located so as to best serve the County or area with minimum impact on neighborhoods, and with consideration for natural or aesthetic values.

(b) Structures shall be designed to be as unobtrusive as possible. Wherever feasible, all utility components shall be placed underground.

(c) Public facilities and services proposed within a wetland or riparian area shall provide findings that: Such location is required and a public need exists; and Dredge, fill and adverse impacts are avoided or minimized.

Response: For the reasons stated elsewhere in this Exhibit K, the substations, energy generating facilities, and collector lines as described in the amendment request will be located to best serve the County with minimum impacts to surrounding uses, natural features and values. While the Certificate Holder is currently authorized to place 5.5 miles of the collector system, based on final geotechnical information and electrical engineering considerations, the Certificate Holder is requesting that up to 12 miles of aboveground collector lines be authorized. Otherwise, no public facilities or services, and no project elements will be located within a wetland or riparian area.

3. SCZO § 5.8(16)—Specific Requirements for Nonfarm Uses in F-1 Zone, Nonfarm Uses (Energy Facility, Access Roads and associated construction areas)

Nonfarm uses * * * may be approved upon a findings [sic] that each such use:

(a) Is compatible with farm uses described in ORS 215.203(2);

Response: SCZO section 5.8(16) provides criteria for conditional uses.

As previously noted, the amended facility is consistent with the purposes of the EFU zone, which allows for the development of commercial utility facilities as a conditional use.

Based on interviews with the farm owners and operators of parcels directly impacted by the project, the project would not be incompatible with farm uses. A technical memorandum included as ASC Appendix K-1 identifies adjacent agricultural crops, practices, impacts and mitigation measures. The current farm use is dry land wheat and barley farming. The expanded boundary and the additional impacts involve the same owners and operators, and the prior findings are directly applicable to the expanded boundary and additional impact. The amended project adds a maximum of 7.1 acres of permanent impact to agricultural lands currently used to grow dry land wheat. The 120 acres of remaining impacts are temporary, and farmers will be compensated for loss of crops.

Due to the minimal amount of land being permanently disturbed and the mitigation measures taken by the Certificate Holder, the amended project is compatible with the farm uses of the property just as the project as currently authorized is compatible.

(b) Does not interfere seriously with accepted farming practices on adjacent lands devoted to farm use;

Response: Adjacent EFU lands contain primarily dry land wheat and barley crop farming. The amended project will not seriously interfere with accepted farming practices on adjacent lands. "Accepted farming practices" is defined at ORS 215.203(2)(c) as "a mode of operation that is common to farms of a similar nature, necessary for the operation of such farms to obtain a profit in money, and customarily utilized in conjunction with farm use." Farm practices for farming wheat and barley in the area are described in the technical memorandum at ASC Appendix K-1. For the same reasons that the Council determined the original project did not interfere seriously with accepted farming practices on adjacent lands devoted to farm use, the Council can make this same determination for the expanded areas. See ASC Exhibit K.

(c) Does not materially alter the overall land use pattern of the area;

Response: The overall land use pattern of the area consists of wheat or barley crops with some rangeland. The analysis area for the amended project is described above. Beyond the analysis area, and except for incorporated towns and rural nodes, the topography consists of similar rolling hills and drainages with wheat farming as the main use, and

was previously analyzed as part of the ASC. There are no known non-farm dwellings in the expanded area. Thus, the amended project will not materially alter the overall land use pattern in the area. The project will require approximately 77.1 acres of land to be permanently removed from farm use while 165 acres of farmland will be affected temporarily (by construction laydown sites, crane paths and underground collectors). Approximately 11,000 acres are farmed in the immediate area by the initial survey respondents, so the amount removed from production is about 0.7 percent of that total, a very small amount of agricultural land. Any financial impacts on the affected farmers resulting from removal of lands from farm production will be offset by the lease payments they will receive for use of their land to site the project, as demonstrated in the technical memorandum supporting the original ASC Exhibit K (ASC Appendix K-2) and elsewhere in the original ASC.

The amended project and private access roads will not materially alter the stability of the existing land use pattern that prevails over this area and much of the County. Local farmers will be able to maneuver around the turbine strings and across the gravel access roads, although minor changes in sowing and harvesting patterns in the immediate vicinity of the strings will be necessary. Since the farming in the area is dry land farming, no irrigation patterns will be affected. The average size of farms in Sherman County is over 2,000 acres, although several in the area are significantly smaller. As shown in Table 1 of the technical memorandum (ASC Appendix K-1), most of the land removed from production for roads and longer turbine strings are on larger properties. The percentage of land affected by the amended project is small for all properties, although the smaller parcels would have less flexibility in adapting to the turbine facilities.

The amended project will not materially alter the stability of the existing land use pattern because the amended facility and all of the related or supporting facilities are compatible with farming when they area limited to a reasonably small percentage of the area farmed. Land uses may be induced to change by altering factors that affect value, either lowering or raising it. In this case, some of the optimum sites for the wind energy generation will be taken by this amended project and will maximize the value of this land for energy generation. The land leases provide an additional source of private income without creating major obstacles to farming. The stability of this lease income will help stabilize the inherent volatility associated with farming.

(d) Is situated upon generally unsuitable land for the production of farm crops and livestock, considering the terrain, adverse soil or land conditions, drainage and flooding, vegetation, location and size of the tract, and the availability of necessary support resources for agriculture;

Response: The roads, turbines, and associated construction areas as set forth in this amendment request are proposed on land that is currently being farmed for wheat and barley. The soils in the area, absent sufficient rainfall or irrigation, would not support any other crops except perhaps hay. Soils that support the wheat and barley farming are not top quality soils; they are Class IIc soils. The chief positive characteristics of these soils are their depth and that they are well drained. These soils, however, do not support

a diversity of crops, nor crops that are high value. They also do not generally support livestock in the County. The price of wheat has dropped steadily over the last 10 years, and there is increasing evidence that maintaining production of wheat and barley on such lands is becoming uneconomic. The wind turbines displace minor amounts of land on parcels that vary in size, but are generally large enough to accommodate both farm and wind energy uses. As a result the displacement impacts are minor and are offset by the lease allowances, which create stability in the economy of each farmer and compensate for the volatility of crop production and prices. Thus, the Certificate Holder submits that the amended project would be sited on property that is "generally unsuitable" for the production of farm crops and livestock. In the alternative, the Certificate Holder has submitted a proposal for a goal 3 exception to allow the amended project to be located on additional EFU land in the County.

(e) Complies with other applicable significant resource provisions; and

Response: There are no known other significant resource provisions applicable to the amended facility.

(f) Complies with such other conditions as deemed necessary.

Response: The Certificate Holder will comply with all conditions of approval imposed by the Council in granting this First Request for Amendment of the Site Certificate.

4. SCZO § 5.2.5. Resource Carrying Capacities

That no approval be granted for any use which is or expected to be found to exceed resource or public facility carrying capacities, or for any use which is found to no be in compliance with air, water, land, and solid waste or noise pollution standards.

Response: As described above, the amended project will not exceed resource or public facility carrying capacities, and the Certificate Holder will comply with all applicable air, water, land, solid waste or noise pollution standards. See ASC Exhibit E (listing permits needed for construction and operation), Exhibit I, Attachment 3 (soils), ASC Exhibit J (wetlands and other waters), ASC Exhibit O (water resources), Exhibit P, Attachment 3 (fish and wildlife habitat); Exhibit Q, Attachment 3 (threatened and endangered species), ASC Exhibit V (waste minimization), and Exhibit X, Attachment 3 (noise).

5. SCZO § 5.2.6. Violation of Ordinance

That no approval be granted for any use violation of this Ordinance.

Response: There are no use violations related to the amended project.

K.8 DIRECTLY APPLICABLE STATUTES, GOALS AND LCDC RULES

1. ORS 215.283(g)(2) and 215.296 – Development on EFU Land

Response: ORS 215.283(2)(g) conditionally permits commercial utility facilities for the purpose of generating power for public use by sale, subject to ORS 215.296. Similarly, the conditional use criteria in ORS 215.296 are also applicable to the access roads as required by ORS 215.283(3)(b) and OAR 660-012-0065 which are discussed below.

A. Energy Facility. ORS 215.296(1) requires a use allowed under ORS 215.283(2), such as the proposed project, to be approved if it does not: (i) force a significant change in accepted farm or forest practices on "surrounding lands" devoted to farm or forest use, or (ii) significantly increase the cost of accepted farm or forest practices on "surrounding lands" devoted to farm or forest use. A logical boundary for the project's "surrounding lands" is Oregon Highways 97 and 206 and Dehman Road on the west, Baseline Road and Grass Valley Canyon on the south, Canyon Road on the north, and the John Day River on the east. Within this area, land that is devoted to farm use is used to grow wheat or barley. There is no forest use within this area. Very little land in this area is irrigated, rainfall is low, and soils and terrain are consistent in type. Accepted farm practices include soil preparation in the spring and fall, sowing, fertilizing, pest and weed management, and harvesting.

The development and operation of the proposed amended facility has the potential to minimally and temporarily affect these practices. The development of the amended project may cause small changes in harvest patterns, access to farm fields, processes for delivering and applying fertilizers and other products to crops, and the harvesting of crops. Development of the amended facility will also displace up to approximately 77.1 acres of land from agricultural use during the life of the proposed facility. Ground disturbance during construction can encourage weeds that temporarily interfere with crop yields until eradicated. The development of access roads and turbine tower pads create margins in the wheat fields that may also temporarily cause the spread of weeds. In conjunction with the Sherman County Weed District, the Certificate Holder will develop and implement a weed control management plan within the project boundary to minimize the growth of weed species in the areas in which the facility will be built, pursuant to the conditions in the current Site Certificate.

Construction of the amended facility will take approximately 9 months to complete. During construction, there will be a temporary disturbance of approximately 165 acres of wheat field and some range land. Once the amended facility is completed, it will preclude approximately 77.1 acres of agricultural land from being used for farming during the life of the project. The Certificate Holder also notes that the size of the area taken for facility use is small in comparison to the amount of land in the project area that will otherwise be available for continued farming uses.

Upon completion of construction of the amended project, all of the staging areas used to construct the energy facility will be rehabilitated and made available for agricultural and wildlife use. Further, where necessary and feasible, the Certificate Holder will provide access across construction trenches to fields within the amended project area. The Certificate Holder will undertake measures to avoid or mitigate impacts to soil, such as employing dust-control and erosion-control measures. The Certificate Holder will also consult with area landowners during construction and operation of the facility to

minimize or avoid any adverse impacts to surrounding agricultural practices. To the extent reasonably possible, the Certificate Holder will use existing access roads to minimize the project's impact to resource land. Some new access roads, however, are necessary, and are being realigned pursuant to the request for amendment. These roads will not significantly adversely impact farming practices or increase farming costs, either during the construction or use of these roads. Instead, they will provide farmers with better access to local agricultural lands. Further, during operation of the facility these roads will be used infrequently by facility employees, thus producing minimal, if any, impact on surrounding farming practices or costs.

The Certificate Holder submits that the development and operation of the amended facility will not force a significant change in accepted farm practices on surrounding lands devoted to farm use.

The amended facility will also not significantly increase the cost of accepted farm practices on surrounding farmland. The Certificate Holder surveyed area farmers to determine the impact of the facility on the cost of farming as part of the ASC. The survey results show that, while development and operation of the project would cause some minor change to harvesting patterns or various farming practices associated with the application of fertilizers and other products, representing some slight loss of efficiency in some cases, the changes would not significantly increase the cost of farming in the surrounding area. In fact, any slight cost increase to area farmers associated with these minor changes in farming practices would be more than offset by compensatory lease payments paid to farmers in the area by the Certificate Holder in order to develop the project. The survey results are equally applicable to the expanded project boundary and amended facility.

The Certificate Holder intends to mitigate any impacts to area farmers, including coordination with farmers concerning timely and adequate access during construction of the amended project, weed management during construction and operation of the amended facility, restoration of disturbed areas during construction and after construction is completed, and lease payments to lessor-farmers.

B. Access Roads Compliance with ORS 215.283(3).

ORS 215.283(3) authorizes the proposed access roads as a conditional use. The Zoning Ordinance does not expressly incorporate ORS 215.283(3). Accordingly, under ORS 197.646(3), ORS 215.283(3) applies to the application directly.

ORS 215.283(3) provides in pertinent part:

> *(3) Roads, highways and other transportation facilities and improvements not allowed under subsections (1) and (2) of this section may be established, . . . in areas zoned for exclusive farm use subject to:*
>
> *(a) Adoption of an exception to the goal related to agricultural lands and to any other applicable goal with which the facility or improvement does not comply;*

(b) ORS 215.296 for those uses identified by rule of the Land Conservation and Development Commission as provided in section 3, chapter 529, Oregon laws 1993.

LCDC rules OAR 660-033-0120 and 660-033-0130(13) identify as allowed uses "transportation improvements on rural lands allowed by OAR 660-012-0065." OAR 660-012-0065(1) identifies transportation facilities, services and improvements that may be permitted on rural lands without a goal 3, 4, 11 or 14 exception. OAR 660-012-0065(3)(o) permits transportation facilities, services and improvements "that serve local travel needs" on rural lands without a goal 3, 4, 11 or 14 exception. Under that rule, the travel capacity and level of service of facilities and improvements serving local travel needs are limited to "that necessary to support rural land uses identified in the acknowledged comprehensive plan or to provide adequate emergency access." OAR 660-012-0065(5) requires that when such facilities or improvements are within an EFU zone, as is the case with the proposed project, the facilities or improvements must: (a) comply with ORS 215.296; (b) identify reasonable build design alternatives, such as alternative alignments, that are safe and can be constructed at a reasonable cost; (c) assess the effects of the identified alternatives on farm and forest practices, movement of farm and forest vehicles and equipment, and effects on access to farm and forest parcels; and (d) select the alternative that will have the least impact on farm or forest lands in the immediate vicinity.

Wind energy is a rural land use identified in the Comprehensive Plan at Section XV, Finding III. The proposed realigned access roads would serve the local travel needs of the project and farmers who operate in the project area. ORS 215.296(1) requires a use allowed under ORS 215.283(3) to be approved if it does not: (i) force a significant change in accepted farm or forest practices on "surrounding lands" devoted to farm or forest use, or (ii) significantly increase the cost of accepted farm or forest practices on "surrounding lands" devoted to farm or forest use. A logical boundary for the project's "surrounding lands" is Oregon Highways 97 and 206 and Dehman Road on the west, Baseline Road and Grass Valley Canyon on the south, Canyon Road on the north, and the John Day River on the east. Within this area, land that is devoted to farm use is used to grow wheat or barley. There is no forest use within this area. Very little land in this area is irrigated, rainfall is low, and soils and terrain are consistent in type. Accepted farm practices include soil preparation in the spring and fall, sowing, fertilizing, pest and weed management, and harvesting.

To the extent reasonably possible, the Certificate Holder will use existing access roads to minimize the amended project's impact to resource land. Some new access roads, however, are necessary, and will be realigned pursuant to the amendment request. These roads will not significantly adversely affect farming practices or increase farming costs, either during the construction or use of these roads. Instead, they will provide farmers with better access to local agricultural lands. Further, during operation of the amended facility these roads will be used infrequently by facility employees, thus producing minimal, if any, impact on

surrounding farming practices or costs. The Certificate Holder submits that the development and use of the proposed realigned roads will not force a significant change in accepted farm practices on surrounding lands devoted to farm use.

The proposed realigned roads also will not significantly increase the cost of accepted farm practices on surrounding farm land. The Certificate Holder surveyed area farmers to determine the impact of the project, including the proposed roads, on the cost of farming as part of the ASC. The survey results show that while development and operation of the project would cause some minor change to harvesting patterns or various farming practices associated with the application of fertilizers and other products, representing some slight loss of efficiency in some cases, the changes would not significantly increase the cost of farming in the surrounding area. In fact, any slight cost increase to area farmers associated with these minor changes in farming practices would be more than offset by compensatory lease payments paid to farmers in the area by the Certificate Holder in order to develop the project. (See ASC Appendix K-1). The survey results are equally applicable to the expanded project boundary and amended facility.

The Certificate Holder considered alternative locations for the proposed wind turbines and related or supporting facilities, but determined that the proposed site plan would maximize the efficiency of the project and have the least possible impact on adjacent farm practices, including the movement of farm vehicles and equipment, and on access to farm parcels. Klondike III thus submits that pursuant to ORS 215.283(3), 215.296 and OAR 660-0120-0065, the proposed new private roads (as realigned per the First Request for Amendment) may be built without taking an exception to goal 3. In the alternative, Klondike III proposes that the realigned roads be allowed under a goal 3 exception.

C. Compliance with OAR 660-012-0065—Transportation Improvements on Rural Lands (Access Roads)

In pertinent part, OAR 660-012-0065 provides:

> (3) The following transportation improvements are consistent with goals 3, 4, 11, and 14 subject to the requirements of this rule:
>
> "* * *"
>
> (o) Transportation facilities, services and improvements other than those listed in this rule that serve local travel needs. The travel capacity and level of service of facilities and improvements serving local travel needs shall be limited to that necessary to support rural land uses identified in the acknowledged comprehensive plan or to provide adequate emergency access.
>
> * * *.

(3) The following transportation improvements are consistent with goals 3, 4, 11, and 14 subject to the requirements of this rule:

"* * *"

(o) Transportation facilities, services and improvements other than those listed in this rule that serve local travel needs. The travel capacity and level of service of facilities and improvements serving local travel needs shall be limited to that necessary to support rural land uses identified in the acknowledged comprehensive plan or to provide adequate emergency access.

"* * *."

(5) For transportation uses or improvements listed in subsection (3)(d) to (g) and (o) of this rule within an exclusive farm use (EFU) or forest zone, a jurisdiction shall, in addition to demonstrating compliance with the requirements of ORS 215.296:

(a) Identify reasonable build design alternatives, such as alternative alignments, that are safe and can be constructed at a reasonable cost, not considering raw land costs, with available technology. Until adoption of a local TSP pursuant to the requirements of OAR 660-012-0035, the jurisdiction shall consider design and operations alternatives within the project area that would not result in a substantial reduction in peak hour travel time for projects in the urban fringe that would significantly reduce peak hour travel time. A determination that a project will significantly reduce peak hour travel time is based on OAR 660-012-0035(10). The jurisdiction need not consider alternatives that are inconsistent with applicable standards or not approved by a registered professional engineer.

(b) Assess the effects of the identified alternatives on farm and forest practices, considering impacts to farm and forest lands, structures and facilities, considering the effects of traffic on the movement of farm and forest vehicles and equipment and considering the effects of access to parcels created on farm and forest lands; and

(c) Select from the identified alternatives, the one, or combination of identified alternatives that has the least impact on lands in the immediate vicinity devoted to farm or forest use.

<u>Response</u>: No new public road alignments are proposed as part of this amendment request, and no changes to road capacity would result from the amendment request. The proposed new private access roads (as realigned pursuant to the amendment request) are

intended to serve local travel needs of project personnel and local farmers. In view of the location of the wind resource and of the existing public road system, there are no reasonable build design alternatives for the proposed roads. The proposed roads will have no impact on peak or non-peak travel time. Any alternative road alignments would not reduce the anticipated minor impacts, if any, to farm lands, structures and facilities, or on the movement of farm vehicles and equipment and still facilitate the construction and operation of the amended project. The Certificate Holder considered the possible locations of the new roads and has proposed them in those locations that would have the least impact to adjacent farm and other existing land uses.

K.9 GOAL 3 EXCEPTION

State law permits "commercial utility facilities for the purpose of generating power for public use by sale" that preclude 20 acres or less of non-high-value-farmland from commercial agricultural enterprise. OAR 660-033-0130(22). If such a facility, as here, exceeds this limit, the provision permits the use of an exception to goal 3 to allow the siting of the project. The Zoning Ordinance does not contain a similar criterion. Under ORS 197.646(3), the administrative rule criteria directly apply to the proposed project.

ORS 469.504(2) provides that the Council may find goal compliance for a facility that does not otherwise comply with one or more of the statewide planning goals by taking an exception to the applicable goal. Notwithstanding the requirements of ORS 197.732, the statewide planning goal pertaining to the exception process or any rules of LCDC pertaining to an exception process goal, the Council may take an exception to a goal. In pertinent part, ORS 469.504(2)(c)(A)-(C) provides that the Council may take a "reasons" exception if the Council finds:

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

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

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

A. Exception for Energy Facility and Related or Supporting Facilities.

The general state policy embodied in Goal 3 is "[t]o preserve and maintain agricultural lands." As discussed above, the amended facility will not have significant adverse effects on accepted farm or forest practices. However, this request must nonetheless demonstrate why the policy contained in the 20-acre limitations should not apply to the amended project. As is explained above, the amended project will preclude 77.1 acres of

EFU land from use as a commercial agricultural enterprise. As set forth below, there are several reasons for not applying the Goal 3 acreage limitation to the project.

1. **Reasons that Justify the Exception.** The Certificate Holder has chosen the overall project site because it offers an optimal wind energy resource to produce the desired energy production. Extensive evaluation of wind resources in various areas within Sherman County indicates that the project site has among the best wind resources for the development of wind energy generating facilities. This conclusion is further supported by the successful operation of the nearby Klondike I project. Klondike III and other energy development companies have collected substantial information about wind energy resources, and have determined that the Klondike area possesses among the most optimal, accessible wind energy resources in the area.

In addition, area farmers are willing to enter into land leases to allow the amended project to be built and control properties of a sufficient size and appropriate configuration to accommodate the amended project. Further, any alternative site in the County would involve the leasing of EFU land, because the areas of the County with the best wind resources are all located on EFU land.

The site is also located to take advantage of BPA's upgraded Klondike Schoolhouse substation and new 230kV transmission line which are being built by BPA as general system upgrades. BPA's facilities are also being built on EFU land. The new BPA substation and transmission line will be the only transmission facilities in Sherman County with the capacity to carry the project's power, and the only point of interconnection to the energy grid available to Klondike III. The proposed collector lines, substations, staging areas and operation and maintenance facility are all necessary to operate the project, and must be located in the project area. The collector lines between the turbines will be built next to the access roads to minimize EFU land disturbance. The above ground collector line corridor will occupy only several hundred square feet of EFU-zoned land, the new collector substations and O&M building will occupy only 8 acres of EFU-zoned land, while the alternate O&M building would occupy only 5 acres.

The amended project will minimize impacts from constructing new access roads by using existing roads where possible and designing the new roads for the minimum size possible that can provide safe and adequate access to the turbine string sites. The project will improve approximately 4 miles of existing roads, minimizing the construction of new roads to 19 miles. The access roads must be designed for use by cranes, excavators, supply trucks and line trucks and will, therefore, be 20 feet wide. Access to and along the turbine strings for proper operation and maintenance is crucial, and Klondike III has located the new access roads to minimize disruption to resource lands.

The only non-EFU land in the area is located in the cities of Moro, Wasco, Rufus and Biggs Junction. None of these locations has the necessary wind resource, adequate parcels of land, or proximate transmission system necessary to build the

project. Hence, the amended facility must be sited on EFU land in order to provide the service.

The topography and remote location of the amended project site will minimize visual impacts to the surrounding community. Further, the agricultural value of the site is generally marginal, and the project will not displace highly productive agricultural activity.

As described in the Certificate Holder's responses to the applicable criteria above, the amended project encourages the efficient siting of land uses. The facility will facilitate the multiple use of land. The project will allow access to farmland on those acres occupied by turbine facilities.

The project will benefit the local economy through employment opportunities, particularly during construction, and contributions to the local tax base. The number of construction jobs will fluctuate during the 9-month construction period, ranging from 100 to 120 jobs. Operation of the facility will require 15 to 20 full-time and part-time employees. The 15 to 20 permanent jobs will provide a combined annual salary of over one-half million dollars, which will contribute to the local economy. In addition, the capital investment in the facility is estimated at up to three hundred million dollars, and the facility is expected to provide substantial tax revenues to the County over the life of the project, with insubstantial countervailing public service demands.

The affected landowners will also benefit. In return for granting leases and easements over small amounts of their farmland, the landowners will receive significant financial compensation.

In sum, the Certificate Holder is proposing the First Request to Amend the Site Certificate to maximize the benefits of the site and available wind resources while also considering impacts to the site. An exception in this instance is justified given the minor incremental impacts in relation to the anticipated benefits.

2. ESEE Consequences Favor the Exception.

Environmental. The project's environmental consequences are discussed primarily in ASC Exhibit J (Wetlands) and Exhibit J, Attachment 3, ASC Exhibit L (Protected Areas), Exhibit P, Attachment 3 (Fish and Wildlife), and Exhibit Q, Attachment 3 (Threatened and Endangered Species). These exhibits demonstrate that the amended facility will not cause significant adverse environmental consequences. Indeed, by and large, the amended facility will avoid impacts to such resources altogether. The amended project will mitigate for any unforeseen impacts to wildlife habitat based on habitat categorization, as is required under ODFW policy (discussed above), and for any unforeseen impacts to the visual setting in which the Oregon Trail alignment occurs (discussed in Exhibit R, Attachment 3). In short, the Certificate Holder does not anticipate any unmitigated adverse impacts to soils, wetlands, protected areas, water resources,

threatened and endangered species, scenic and aesthetic resources, historic and cultural and archaeological resources (other than the Oregon Trail alignment, which has already been authorized as part of the existing Site Certificate), or public services.

Socioeconomic. The amended project's socioeconomic consequences will not be adverse. The amended facility will not have significant adverse impacts on scenic, cultural, historical, archeological, or recreational resources. ASC Exhibit U (Public Services and Socio-Economic Impacts) demonstrates that the project will not have significant adverse impacts on community services such as housing, sewer, water supply, waste disposal, health care, education, and transportation, and the amended project does not alter these conclusions. As discussed above, the amended facility will create jobs and contribute income to the County. These benefits should be measured against the relatively small amount of agricultural activity that will be displaced by the amended project.

The amended project will supplement farmers' income with lease payments and without significantly reducing the land base available for farming practices. Similarly, although some farming will be displaced where certain portions of the facility will be located, the amended project will be compatible with area farming, as is true with the Klondike I project adjacent to the amended project site.

Energy. The energy consequences of the facility are discussed briefly above. The facility will utilize existing electric energy capacity from the Wasco Electric Cooperative to operate the new or alternate O& M building. The energy produced by the project will be clean energy that will help Oregon and the northwest region meet increasing energy demands.

3. **The Facility Is Compatible with Other Adjacent Uses.** As discussed in detail above, the amended facility is compatible with adjacent land uses. The amended project will not significantly alter the farming land use pattern or practices in the area, nor will it significantly increase farming costs.

In sum, there are compelling reasons that justify siting the amended facility at the proposed location with the expanded boundary, and doing so will not create any significant adverse economic, social, environmental or energy consequences. The facility will be compatible with adjacent land uses, as is the existing adjacent wind energy facility (Klondike I). The Certificate Holder therefore requests approval of a goal 3 exception for the energy generating facility and all related or supporting facilities, including the new (realigned) roads, to the extent such an exception is necessary for the amendment request.

K.10 FEDERAL LAND MANAGEMENT PLANS

OAR 345-021-0010(1)(k)(D) *If the proposed facility will be located on federal land:*

1. Identify the applicable land management plan adopted by the federal agency with jurisdiction over the federal land;

Explain any differences between state or local land use requirements and federal land management requirements;

Describe how the proposed facility complies with the applicable federal land management plan;

Describe any federal land use approvals required for the proposed facility and the status of application for each required federal land use approval;

Provide an estimate of time for issuance of federal land use approvals; and

If federal law or the land management plan conflicts with any applicable state or local land use requirements, explain the differences in the conflicting requirements, state whether the applicant requests Council waiver of the land use standard described under paragraph (B) or (C) of this subsection and explain the basis for the waiver.

Response: These provisions are not applicable to the amended project. No portion of the amended project will be located on federal land.

K.11 REFERENCES

Allan, S., Buckley, A., and Meacham, J. 2001. Atlas of Oregon. Second Edition. William Loy, Ed. University of Oregon Press.

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EXHIBIT P

FISH AND WILDLIFE HABITATS AND SPECIES
OAR 345-021-0010(1)(p)

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TABLES

APPENDIX

P.1 INTRODUCTION

OAR 345-021-0010(1)(p) *Information about the fish and wildlife habitats and the fish and wildlife species, other than the species addressed in subsection (q) that may be affected by the proposed facility, providing evidence to support a finding by the Council as required by OAR 345-022-0060.*

Response: The fish and wildlife habitat standard states that "to issue a site certificate, the Council must find that the design, construction, operation, and retirement of the facility, taking into account mitigation, are consistent with the fish and wildlife habitat mitigation goals and standards of OAR 635-415-0025."

P.2 IDENTIFICATION AND DESCRIPTION OF FISH AND WILDLIFE HABITATS IN THE ANALYSIS AREA

OAR 345-021-0010(1)(p)(A) *Identification and description of all habitat within the analysis area, classified by the habitat categories as set forth in OAR 635-415-0030;*

Response: The habitat types and categories within the expanded site boundary are the same as described in the ASC. The distribution of the habitat types and categories within the expanded site boundary that were not previously analyzed is shown in Figures P-2 through P-6 (in Appendix P-1).

P.3 DESCRIPTION OF BIOLOGICAL AND BOTANICAL SURVEYS PERFORMED

OAR 345-021-0010(1)(p)(B) *A description of biological and botanical surveys performed that support the information in this exhibit, including a discussion of the timing and scope of each survey;*

Response: Protocols for the biological surveys, habitat typing, and habitat categorization were approved by ODFW during review of the ASC. Methods for surveying the additional area within the expanded site boundary are the same.

P.3.1 Vegetation

Vegetation mapping for the portion of the expanded site boundary that had not previously been surveyed was conducted in spring 2006. The vast majority of the area was agricultural; the only non-agricultural land lies along Dehler Road, as shown in Figures P1 – P6. In this area, a narrow strip of weedy and disturbed land lies between agricultural land and the road. An intermittent channel meanders east near the road before meeting another intermittent tributary from the north and crossing diagonally to the northeast through a culvert under the road. The tributary then disappears into agricultural fields, with large waterbars cutting off surface water connection to other water bodies. An existing access road to one of the Klondike II turbine strings crosses the intermittent channel on the south side of Klondike Road.

A portion of the area, dominated by low, cultivated locust shrubs (species unknown) over cheatgrass, was previously mapped as category 4 shrub-steppe. The expanded area includes larger portions of this strip of land, with a larger variety of habitats. Category 3 Upland tree habitat is mapped in two small areas along the road, where 20-foot tall (likely planted) Ponderosa pine trees are grouped. Cheatgrass and other weeds lie beneath the trees. Category 4 grassland is mapped between the previously mapped shrub-steppe areas. The grassland is similar to other Category 4 grassland mapped at Klondike III, and is dominated by weeds such as cheatgrass, rancher's fiddleneck, and cereal rye, with scattered patches of native species such as Sandberg bluegrass, yarrow, and lupine (various species).

Where the crane path crosses another intermittent tributary south of Emigrant Springs, the tributary has been completely plowed under, and no native habitat remains. All other areas were mapped in the ASC.

P.3.2 Wildlife

Field transect surveys were conducted in spring 2006, for non-agricultural areas not previously surveyed in 2005, that occur within the expanded site boundary. Avian and raptor surveys that cover the expanded site boundary were completed in spring 2005, and were provided to the Department in response to previous Requests for Additional Information.

P.4 MAP OF HABITAT LOCATION

OAR 345-021-0010(1)(p)(C) *A map showing the locations of habitat identified in (A);*

Response: The habitat types and categories within the expanded site boundary, as described in Section P.3 above, are illustrated in Figures P-2 through P-6 in Appendix P-1.

P.5 DESCRIPTION OF SIGNIFICANT POTENTIAL IMPACTS ON IDENTIFIED HABITATS

OAR 345-021-0010(1)(p)(D) *A description of the nature, extent, and duration of significant potential impacts on the habitat identified in (A) that may result from construction, operation, and retirement of the proposed facility;*

Response: This section describes potential significant impacts of the changes to the project to habitats and associated wildlife during construction, operation, and retirement.

P.5.1 Impacts to Wildlife Habitat

Potential impacts to wildlife habitat include temporary and permanent habitat loss, alteration, and disturbance during construction and operation. After facility retirement, a site restoration plan will ensure conversion of the operations corridors back to a site condition similar to pre-construction conditions. Table P-1 summarizes the temporary and permanent impacts to wildlife habitat from construction of the amended project.

Table P- 1. Habitat Types and Categories in the Klondike III Wind Project Expanded Site Boundary with Area of Impact

	IMPACTS (in acres)	
	Temporary	Permanent
Category 1	0.0	0.0
Category 2		
Grassland	0.0	0.0
Shrub-steppe	0.0	0.0
Category 3		
CRP	6.36	0.0
Grassland	0.31	0.0
Shrub-steppe	0.0	0.0
Intermittent streams	0.0	0.0
Upland trees	0.0	0.0
Category 4		
Grassland	0.28	0.0
Category 5	0.0	0.0
Category 6		
Developed	2.67	0.0
Agricultural	110.62	7.1
TOTAL	**120.24**	**7.1**

Temporary impacts are the construction-related impacts in categories 3, 4, and 6 habitats, and are associated with the laydown areas, crane paths, and the underground collector systems. These areas will be temporarily disturbed during construction and will be restored to pre-construction condition after the construction-related activities are complete. There are no permanent impacts in categories 3 and 4 habitats. Approximately 7.1 acres of permanent impact will occur in category 6 agricultural land; however, these impacts largely replace impacts to agricultural lands within the currently permitted site boundary. Impacts to wildlife habitat would not be significant because temporary habitat impacts would be restored. The majority of the temporary and only permanent impacts would occur within category 6 agricultural lands.

P.5.2 Impacts to Special Status/Sensitive Species

P.5.2.1 Plants

No populations of special status/sensitive plant species were observed in the expanded site boundary; therefore, no direct construction, operation, or retirement-related impacts would be anticipated to these plants or their suitable habitat.

P.5.2.2 Mammals and Other Special Status/Sensitive Wildlife Species

As in the ASC, given that the habitat types in the expanded site boundary are the same as those in the currently permitted site boundary, the expanded site boundary area is anticipated to provide suitable habitat for up to 16 target species. The following special status/sensitive wildlife species have been observed in the project vicinity: golden eagle, Swainson's hawk, ferruginous hawk, rough-legged hawk, red-tailed hawk, long-billed curlew, loggerhead shrike, and the white-tailed jackrabbit. Impacts to avian species are addressed in Section P.5.2.4, below.

Surveys conducted in 2005 and 2006 revealed no occurrences of sensitive species within the expanded site boundary. No direct construction, operation, or retirement-related impacts are anticipated to these species. The expanded site boundary does contain potential suitable habitat for the above noted species. All impacts incurred by these areas will be temporary, with site restoration occurring after construction.

P.5.2.3 Bats

Neither bats nor their suitable habitat were observed in the expanded site boundary. The potential impact to bats could be from collision mortality during operation. The analysis of potential impact of the amended project for bats is therefore the same as that described in the ASC.

P.5.2.4 Birds

Potential impact to bird species within the expanded site boundary will be similar to that described in the ASC. Impacts could occur as a result of temporary loss of habitat, potential fatalities from construction equipment, and disturbance/displacement effects from construction activities. The majority of the temporary impacts (6.1 acres) would occur within category 3 CRP lands, which were surveyed and described in the ASC. Since it has developed structural characteristics that are favorable to species such as grasshopper sparrow, temporary impacts to the CRP lands could temporarily impact the species, which would likely be displaced to the extensive CRP lands nearby. The scale of these additional temporary impacts due to the expanded area, is minor in comparison to the available CRP habitat in the vicinity, and no measurable effect on impacts to avian species is anticipated.

Potential mortality from construction equipment is expected to be very low, and is the same as described in the ASC, because the same equipment will be used in the expanded site boundary.

No new turbines have been proposed as part of this amendment. Micro-siting of turbines has resulted in only minor changes to turbine locations, relative to the ASC submittal, and will have no measurable effect on impacts to avian species compared to those described in the ASC.

P.6 MITIGATION MEASURES

OAR 345-021-0010(1)(p)(E) *A description of any measures the applicant proposes to avoid, reduce or mitigate potential adverse impacts;*

Response: Only temporary impacts will occur to wildlife and wildlife habitat as a result of the expansion of the site boundary. The measures that will be implemented to avoid, reduce, or mitigate potential adverse impacts to special status/sensitive species and wildlife habitat are the same for the amended project as for the permitted project. Because the impacts are expected to be the same, these mitigation measures should ensure that impacts to fish and wildlife are not significant.

P.6.1 Mitigation for Habitat Impacts

No previously unevaluated permanent impacts will occur within the expanded site boundary, except in category 6 agricultural lands, and these impacts largely replace impacts to agricultural lands within the current site boundary. Therefore, no compensatory mitigation, or enhancement of habitats is required or proposed. Habitat areas experiencing temporary disturbance will be restored upon project completion in the same manner as described in the ASC.

P.6.2 Mitigation for Impacts to Special Status/Sensitive Species

There are no anticipated impacts to special status/sensitive plants; therefore, no mitigation is required.

Mitigation requirements were established as conditions of approval of the Site Certificate. The amended project will result in no permanent impacts other than in category 6 agricultural lands. Temporary impacts will result to habitats listed in Table P-1. These areas will be restored as described for habitat impacts in the ASC and approved as conditions of the current Site Certificate. Since the turbine locations have not significantly changed (i.e. no new turbines are proposed outside of the currently approved micro-siting corridors) with this amendment request, displacement impacts also will not change.

P.7 EVIDENCE THAT THE PROPOSED FACILITY COMPLIES WITH ODFW FISH AND WILDLIFE HABITAT MITIGATION GOALS

OAR 345-021-0010(1)(p)(F) *Evidence that the proposed facility, including any proposed mitigation, complies with the fish and wildlife habitat mitigation goals and standards in OAR 345-415-0030; and*

Response: Because the impacts within the expanded site boundary will be restored in the same manner as prescribed in the mitigation plan approved for the ASC, the amended project complies with the ODFW habitat mitigation goals and standards.

P.8 MONITORING PROGRAM

OAR 345-021-0010(1)(p)(G) *The applicant's proposed monitoring program, if any, for impacts to such fish and wildlife species and their habitats.*

Response: A monitoring program has been developed and approved as a condition of the existing Site Certificate. The types of mitigation actions applicable to the permitted project will be applied in a consistent manner to impacts within the extended site boundary.

P.9 CONCLUSION

The amended project has considered and complied with the ODFW Fish and Wildlife Habitat Mitigation Policy as set forth in OAR 635-415-0000 through -0025. All of the fish and wildlife habitats within the expanded site boundary were identified and categorized according to the ODFW Policy. Only temporary impacts will occur in non-agricultural lands, and these areas will be restored. Temporary and permanent impacts will occur in agricultural lands; temporary impacts will be restored, and the permanent impacts largely replace impacts permitted under the current Site Certificate.

Based upon pre-field review, habitat typing, and surveys conducted in 2005 and 2006, there are no anticipated impacts to special status/sensitive plants and wildlife species that may occur within the expanded boundary.

Based upon the above information, the Certificate Holder satisfies the requirements in OAR 345-021-0010(1)(p), and the Council may find that the design, construction, operation, and retirement, taking into account mitigation, will be consistent with fish and wildlife habitat mitigation goals and standards pursuant to OAR 345-022-0060.

APPENDIX P-1

Figures P-2 through P-6
Distribution of Habitat Types and Categories within the Project Analysis Area

Klondike III Wind Project
Amendment 1
Figure P-1
Fish and Wildlife Habitat Analysis Area

- Raptor Nest
- Noise Receptor
- Proposed Met Tower
- 82.5 Meter Rotor Turbines
- 92.5 Meter Rotor Turbines
- Proposed Overhead T-line
- Proposed Underground Collector
- Crane Path
- Proposed New Road
- Already Permitted Road (KII)
- Existing Road
- Proposed Habitat Mitigation Area
- Proposed O&M Facility
- Alternative O&M Facility
- Existing O&M Facility
- Proposed Substation
- Existing Substation
- Lease Boundary
- Habitat Map Tile Boundary

Habitat Type:

- Agriculture (AG)
- Conservation Reserve Program (CRP)
- Developed (DE)
- Grassland (GR)
- Shrub-Steppe (SS)
- Upland Trees (UT)
- Wetlands
- Intermittent Stream (WS)

R1 R2 R3 R4 R5 R6 R7

A B C D E

Not Leased

Not Leased

Medler Ln
N Klondike Rd
Emigrant Springs Rd
Dehler Rd
Beacon Rd
Klondike Ln
McDonald Ferry Ln
Sandon Rd
Gosson Ln
Hwy 206
Smith Ln

0 0.5 1 2 Miles

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Klondike III Wind Project

Amendment 1
Figure P-2
Fish and Wildlife
Habitat Analysis Area
Map Tile A

- Raptor Nest
- Noise Receptor
- Proposed Met Tower
- 82.5 Meter Rotor Turbines
- 92.5 Meter Rotor Turbines
- Proposed Overhead T-line
- Proposed Underground Collector
- Crane Path
- Proposed New Road
- Already Permitted Road (KII)
- Existing Road
- Additional Micro-Siting Corridor
- Micro-Siting Corridor (Already Permitted)
- Proposed Habitat Mitigation Area
- Proposed O&M Facility
- Alternative O&M Facility
- Existing O&M Facility
- Proposed Substation
- Existing Substation
- Lease Boundary

Habitat Type:

- Agriculture (AG)
- Conservation Reserve Program (CRP)
- Developed (DE)
- Grassland (GR)
- Shrub-Steppe (SS)
- Upland Trees (UT)
- Wetlands
- Intermittent Stream (WS)

0 0.5 1 2
Miles

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Klondike III Wind Project

Amendment 1

Figure P-3

Fish and Wildlife Habitat Analysis Area

Map Tile B

R3

Raptor Nest
Noise Receptor
Proposed Met Tower
82.5 Meter Rotor Turbines
92.5 Meter Rotor Turbines
Proposed Overhead T-line
Proposed Underground Collector
Crane Path
Proposed New Road
Already Permitted Road (KII)
Existing Road
Additional Micro-Siting Corridor
Micro-Siting Corridor (Already Permitted)
Proposed Habitat Mitigation Area
Proposed O&M Facility
Alternative O&M Facility
Existing O&M Facility
Proposed Substation
Existing Substation
Lease Boundary

Habitat Type:
Agriculture (AG)
Conservation Reserve Program (CRP)
Developed (DE)
Grassland (GR)
Shrub-Steppe (SS)
Upland Trees (UT)
Wetlands
Intermittent Stream (WS)

0 0.5 1 2
Miles

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Klondike III Wind Project

Amendment 1
Figure P-4
Fish and Wildlife
Habitat Analysis Area
Map Tile C

- Raptor Nest
- Noise Receptor
- Proposed Met Tower
- 82.5 Meter Rotor Turbines
- 92.5 Meter Rotor Turbines
- Proposed Overhead T-line
- Proposed Underground Collector
- Crane Path
- Proposed New Road
- Already Permitted Road (KII)
- Existing Road
- Additional Micro-Siting Corridor
- Micro-Siting Corridor (Already Permitted)
- Proposed Habitat Mitigation Area
- Proposed O&M Facility
- Alternative O&M Facility
- Existing O&M Facility
- Proposed Substation
- Existing Substation
- Lease Boundary

Habitat Type:

- Agriculture (AG)
- Conservation Reserve Program (CRP)
- Developed (DE)
- Grassland (GR)
- Shrub-Steppe (SS)
- Upland Trees (UT)
- Wetlands
- Intermittent Stream (WS)

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Miles

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Klondike III Wind Project
Amendment 1
Figure P-5
Fish and Wildlife Habitat Analysis Area
Map Tile D

R6

R7

Landing Strip

Raptor Nest
Noise Receptor
Proposed Met Tower
82.5 Meter Rotor Turbines
92.5 Meter Rotor Turbines
Proposed Overhead T-line
Proposed Underground Collector
Crane Path

Proposed New Road
Already Permitted Road (KII)
Existing Road
Additional Micro-Siting Corridor
Micro-Siting Corridor (Already Permitted)
Proposed Habitat Mitigation Area
Proposed O&M Facility
Alternative O&M Facility
Existing O&M Facility
Proposed Substation
Existing Substation
Lease Boundary

Habitat Type:
Agriculture (AG)
Conservation Reserve Program (CRP)
Developed (DE)
Grassland (GR)
Shrub-Steppe (SS)
Upland Trees (UT)
Wetlands
Intermittent Stream (WS)

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Miles

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Klondike III Wind Project
Amendment 1
Figure P-6
Fish and Wildlife Habitat Analysis Area
Map Tile E

- Raptor Nest
- Noise Receptor
- Proposed Met Tower
- 82.5 Meter Rotor Turbines
- 92.5 Meter Rotor Turbines
- Proposed Overhead T-line
- Proposed Underground Collector
- Crane Path
- Proposed New Road
- Already Permitted Road (KII)
- Existing Road
- Additional Micro-Siting Corridor
- Micro-Siting Corridor (Already Permitted)
- Proposed Habitat Mitigation Area
- Proposed O&M Facility
- Alternative O&M Facility
- Existing O&M Facility
- Proposed Substation
- Existing Substation
- Lease Boundary

Habitat Type:

- Agriculture (AG)
- Conservation Reserve Program (CRP)
- Developed (DE)
- Grassland (GR)
- Shrub-Steppe (SS)
- Upland Trees (UT)
- Wetlands
- Intermittent Stream (WS)

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Miles

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EXHIBIT Q

THREATENED AND ENDANGERED SPECIES
OAR 345-021-0010(1)(q) and OAR 345-022-0070

TABLE OF CONTENTS

Q.1 INTRODUCTION

OAR 345-021-0010(1)(q) *Information about threatened and endangered plant and animal species that may be affected by the proposed facility, providing evidence to support a finding by the Council as required by OAR 345-022-0070. The applicant shall include:*

Response: Because the database searches covered a 5-mile area, the listed, candidate and proposed species within the expanded site boundary are the same as for the permitted project. The expanded site boundary consists of minor shifts in turbine string locations associated with turbine micro-siting, crane paths primarily through agricultural fields, modifications to the underground electric collector system, new laydown areas, and an alternate location for the O&M facility. No additional turbines are associated with this amended site boundary; in fact, it is likely that fewer turbines will be constructed.

The vast majority of ground disturbance will occur in existing agricultural areas. No permanent impacts will occur to native habitats. Only minor temporary impacts to moderate quality grassland habitat (0.59 acres) and Conservation Reserve Program lands (6.36 acres) will occur. Based on field review, these habitats currently do not support any of the listed, candidate, and proposed species from the database search. These areas will be restored upon construction completion.

Based on the above description of project revisions and site characteristics, the project activities proposed in this amendment are not anticipated to result in a change of findings over the original site application, with respect to federal and state listed, candidate, and proposed plant, fish, and wildlife species.

Q.2 ANALYSIS AREA

This section describes the analysis area with regard to threatened and endangered species in the expanded site boundary. The project vicinity of the expanded area is the same as for the permitted project.

The expanded site boundary is defined as:

- 150 feet from proposed crane paths
- 200 feet from underground collector lines paths.
- Proposed laydown areas, alternate O&M facility.

The proposed rare plant survey corridors are designed to take in all ground potentially disturbed by the project. Where suitable habitat exists (non-agricultural), ground surveys were conducted. For non-linear facilities, the entire proposed disturbance footprint was surveyed.

Q.3 METHODOLOGY

OAR 345-021-0010(q)(A) *Based on appropriate literature and field study, identification of all threatened or endangered species listed under ORS 496.172(2), ORS 564.105(2) or 16 USC § 1533 that may be affected by the proposed facility;*

Response: The methodology for the expanded area is the same as for the permitted project. Additional surveys were conducted for areas not previously covered. The results of these surveys are incorporated into a supplement to the Exhibit and will be provided to OOE, ODFW and ODA for their review and comment.

Q.3.1 Wildlife

Two raptor nesting surveys were conducted in 2005. These surveys gathered information on nesting species visible from the air and covered the amended area. These surveys included information on nest locations and reproductive success in the area, and results have been provided to the Department.

Wildlife surveys were conducted by qualified biologists from mid-April through mid-May 2005 in suitable habitats within the original site boundary and within an additional 1,000 feet from the original site boundary within the lease boundary. Areas beyond the lease boundary were visually evaluated from the closest leased property boundary. Threatened and endangered species' occurrence and wildlife habitats were investigated during these field visits. Because the field surveys covered an area 1,000 feet beyond the original site boundary, much of the amended/expanded site boundary was also surveyed at that time. Additional surveys were conducted on May 26, 2006 for those areas not previously surveyed.

Q.3.2 Plants

The expanded area was also surveyed for rare plants at the end of May 2006, per the protocols developed for the ASC, and approved by ODFW.

Q.4 EXISTING CONDITIONS AND POTENTIAL IMPACTS TO STATE AND FEDERAL LISTED, CANDIDATE AND PROPOSED SPECIES

OAR 345-021-0010(1)(q)(B) *For each species identified under (A), a description of the nature, extent, locations and timing of its occurrence in the analysis area and how the facility might adversely affect it;*

Response: Table Q-1 in the ASC lists the fish, wildlife and plant species that are either known to occur or considered to have the potential to occur within the analysis area, including the expanded site boundary, which was within the database search area. Table Q-1 also addresses the potential occurrence of each species within the analysis area and its potential for impacts from the construction and operation of the proposed project based upon the evaluation of fish and wildlife habitats in the analysis area.

Section Q.4 in the original ASC describes the "*...nature, extent, location and timing...*" (OAR 345-021-0010(q)(B) of each of the listed species that has the potential to occur within the analysis area or that may be affected by the proposed project. It is not repeated here, since no impacts are anticipated. This section also addresses how the construction and operation of the project might affect these species (OAR 345-021-0010(q)(B).

Q.4.1 Potential Impacts to Wildlife

The expanded field surveys did not locate any individuals or their supporting habitats. No new turbines are proposed and no supporting habitat will be impacted as a result of this amendment. Therefore, no direct project-related impacts would be anticipated to any listed, threatened, proposed, or candidate wildlife species.

Q.4.2 Potential Impacts to Plants

The expanded field surveys did not locate any populations of target plant species (ECCI 2006). Therefore, no direct project-related impacts would be anticipated to any federally Endangered, Threatened, Proposed, or Candidate plant species. Likewise, no direct project-related impacts would be predicted for any ODA Endangered, Threatened, or Candidate plant species.

Q.5 DESCRIPTION OF MEASURES PROPOSED TO AVOID OR REDUCE ADVERSE IMPACTS TO SPECIES

OAR 345-021-0010(1)(q)(C) *For each species identified under (A), a description of measures proposed by the applicant, if any, to avoid or reduce adverse impact;*

Response: The following section complies with OAR 345-021-0010 by discussing the possible means by which project activities in the expanded site boundary may have adverse impacts to state and federal listed species from the proposed project can be avoided or minimized.

Q.5.1 Wildlife

No direct project-related impacts are anticipated within the expanded site boundary to any listed, threatened, proposed, or candidate wildlife species as a result of amended activities. Therefore, no additional mitigation is required.

Q.5.2 Plants

Because no direct project-related impacts to any federal or state endangered, threatened, sensitive, proposed, or candidate plant species are anticipated, no species-specific mitigation measures are proposed. Several general measures were provided in the original ASC to mitigate possible indirect effects to other species of concern (if any).

Q.6 FINDINGS THAT THE PROPOSED FACILITY WILL NOT LIKELY CAUSE A SIGNIFICANT REDUCTION IN THE LIKELIHOOD OF SURVIVAL OR RECOVERY OF THE PLANT SPECIES IDENTIFIED

OAR 345-021-0010(1)(q)(D) *For each plant species identified under (A), a description of how the proposed facility, including any mitigation measures, complies with the protection and conservation program, if any, that the Oregon Department of Agriculture has adopted under ORS 564.105(3);*

Q.6.1 Identified Plant Species with an ODA protection and conservation program

Response: Protection and Conservation Programs are prepared by ODA for plant species that are listed as threatened or endangered under the Oregon ESA. Of the species with the potential to occur within the expanded analysis area, only the Laurence's milkvetch and the liverwort monkeyflower are listed as threatened under the Oregon ESA; however, these species do not currently have a formal Protection and Conservation Plan. No impacts to these species would result from project activities within the expanded area, because they do not occur there.

Q.6.2 Identified Plant Species without an ODA protection and conservation program

OAR 345-021-0010(1)(q)(E) *For each plant species identified under (A), if the Oregon Department of Agriculture has not adopted a protection and conservation program under ORS 564.105(3), a description of significant potential impacts of the proposed facility on the continued existence of the species and on the critical habitat of such species and evidence that the proposed facility, including any mitigation measures, is not likely to cause a significant reduction in the likelihood of survival or recovery of the species;*

Response: Because there were no anticipated occurrences of state or federal listed species within the analysis area, the construction and operation of the expanded area are not likely to cause a significant reduction in the likelihood of survival or recovery of these species.

Q.7 FINDINGS THAT THE PROPOSED FACILITY WILL NOT LIKELY CAUSE A SIGNIFICANT REDUCTION IN THE LIKELIHOOD OF SURVIVAL OR RECOVERY OF THE FISH AND WILDLIFE SPECIES IDENTIFIED

OAR 345-021-0010(1)(q)(F) *For each animal species identified under (A), a description of significant potential impacts of the proposed facility on the continued existence of such species and on the critical habitat of such species and evidence that the proposed facility, including any mitigation measures, is not likely to cause a significant reduction in the likelihood of survival or recovery of the species;*

Response: No direct project-related impacts would be anticipated to any listed, threatened, proposed, or candidate wildlife species as a result of amended activities. Therefore, the amended activities will not cause a significant reduction in the likelihood of survival or recovery of the species.

Q.8 MONITORING PROGRAM

OAR 345-021-0010(1)(q)(G) *The applicant's proposed monitoring program, if any, for impacts to threatened and endangered species;*

Response: Any programs to monitor the potential impacts to the individual listed species, if required, will be extended to cover appropriate areas within the expanded site boundary. Such programs will be developed in coordination with the ODFW for fish and wildlife species and with ODA for plant species.

Q.9 CONCLUSION

The pre-field review identified a total of twelve federal and state listed and candidate plant and wildlife species that have the potential to exist within the expanded analysis area. Based upon the pre-field review, plant and wildlife surveys conducted in spring 2005 and late spring 2006, and the fish and wildlife habitat analysis, activities proposed within the expanded site boundary are not anticipated to impact threatened and endangered species.

Based upon the above information, the Certificate Holder has satisfied the requirements in OAR 345-021-0010(1)(q), and the Council should be able to find compliance with OAR 345-022-0070.

REFERENCES

Eagle Cap Consulting Inc. (ECCI). 2006. An Investigation of Rare Plant Resources Associated with the Expanded Analysis Area of the Proposed Klondike III Wind Project, Sherman County, Oregon. Unpublished. Eagle Cap Consulting Inc., Beaverton, Oregon.

EXHIBIT R

SCENIC AND AESTHETIC VALUES

OAR 345-021-0010(l)(r)

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TABLES

APPENDIX

R.1 INTRODUCTION

Exhibit R addresses impacts the new proposed 2.4 MW turbine type, within the permitted micro-siting corridor, would have on Scenic and Aesthetic Values in the analysis area. The turbines have a hub height of approximately 263 feet and overall height, including blades, of 414 feet. The exhibit responds to the requirements of OAR 345-021-0010(1)(r), as follows:

OAR 345-021-0010(1)(r) *An analysis of significant potential impacts of the proposed facility, if any, on scenic and aesthetic values identified as significant or important in applicable federal land management plans or in local land use plans for the analysis area, providing evidence to support a finding by the Council as required by OAR 345-022-0080, including;*

R.2 APPLICABLE FEDERAL LAND MANAGEMENT PLANS AND LOCAL LAND USE PLANS

OAR 345-021-0010(1)(r)(A) *Identification of the applicable federal land management plans and local land use plans:*

Response: The analysis area is the same as in the ASC. Applicable federal land management plans and local land use plans have not changed from the ASC and include:

- Management Plan for the Columbia River Gorge National Scenic Area, September 1992, revised May 10, 2004;
- John Day Proposed Management Plan, Two Rivers and John Day Resource Management Plan Amendments and Final Environmental Impact Statement, June 2000 (Record of Decision issued February 2001);
- Management and Use Plan Update Final Environmental Impact Statement Oregon National Historic Trail and Mormon Pioneer National Historic Trail, August 1999 (Record of Decision issued November 1999);
- Lower Deschutes River Management Plan and Final Environmental Impact Statement, January 1993 (Record of Decision issued February 1993);
- Proposed Two Rivers Resource Management Plan Final Environmental Impact Statement, September 1985 (Record of Decision issued June 1986);
- Lower Klickitat River Wild and Scenic River Management Plan Final Environmental Impact Statement, November 1991;
- Proposed Spokane Resource Management Plan Amendment Final Environmental Impact Statement, 1992;
- Sherman County [Oregon] Comprehensive Land Use Plan 1994, revised June 2003;

- Journey Through Time Management Plan, April 1996 (State Scenic Byway Management Plan referenced in Sherman County Comprehensive Plan);
- Comprehensive Plan for Wasco County [Oregon], August 25, 1983;
- Gilliam County [Oregon] Comprehensive Land Use Plan, October 25, 2000;
- Morrow County [Oregon] Comprehensive Plan, January 30, 1986;
- Klickitat County [Washington] Comprehensive Plan, August, 1977; and
- Yakima County [Washington] Policy Plan, May 20, 1997, amended December 28, 1998.

R.3 IDENTIFICATION AND DESCRIPTION OF SCENIC AND AESTHETIC VALUES IDENTIFIED AS SIGNIFICANT OR IMPORTANT

OAR 345-021-0010(1)(r)(B) *Identification and description of the scenic and aesthetic values identified as significant or important in the applicable plans;*

Response: Significant or important scenic and aesthetic values are the same as identified in the ASC. Table R-1 summarizes important or significant scenic or aesthetic values in the analysis area and their approximate minimum distance from the site boundary of the proposed facility.

Table R- 1. Scenic and Aesthetic Values within Analysis Area and Their Approximate Minimum Distance from the Proposed Facility

Scenic or Aesthetic Value	Direction and Distance from Klondike III site (miles)
Columbia River Gorge National Scenic Area	NW, 12.2
John Day River Canyon	E, 0.8
Oregon National Historic Trail High Potential Sites:	
Fourmile Canyon	E, 20.0
John Day River Crossing (a.k.a. McDonald Ferry)	E, 2.0
Biggs Junction	NW, 11.0
Deschutes River Crossing	NW, 13.5
The Dalles Complex	W, 28.0
Lower Deschutes River Canyon	W, 8.0
Lower Klickitat River Canyon	NW, 17.5
Journey Through Time Scenic Byway	W, 0.5
Trees (Sherman County)	Scarce and varied

R.4 SIGNIFICANT POTENTIAL ADVERSE IMPACTS TO SCENIC AND AESTHETIC VALUES

OAR 345-021-0010(1)(r)(C) *A description of significant potential adverse impacts to the scenic and aesthetic values identified in (B), including, but not limited to, potential impacts such as:*

(i) Loss of vegetation or alteration of the landscape as a result of construction or operation;

Response: Impacts are generally the same as described in the ASC. Proposed changes will result in additional temporary impacts of up to approximately 120.7 acres and permanent impacts of up to approximately 7.1 acres (Figure C2-B). Temporary impacts would be restored to their existing condition. Permanent impacts would affect only dry land winter wheat. There would be no impacts to trees or rock outcroppings. Therefore, there will be no significant adverse impacts to vegetation or alteration of the landscape.

(ii) Visual impacts of facility structures, including cooling tower or other plumes, if any; and

Response: DEA used the same means and methods to determine potential changes in impacts from use of the proposed 2.4 MW wind turbines to significant or important scenic and aesthetic values as used in the ASC (i.e., Revised Exhibit R, September 16, 2005). Considering the relatively small increase in turbine height (5.2m) to select turbines, minor shifts in turbine placement, and large viewing distances, the proposed turbines (Figure R-1) would result in negligible changes, if any, in impacts to Columbia River Gorge National Scenic Area (CRGNSA) and Journey Through Time Scenic Byway. This turbine type would not affect impacts to the Oregon National Historic Trail Fourmile Canyon, Biggs Junction, Deschutes River Crossing, and The Dalles Complex sites, Lower Deschutes River Canyon, and Lower Klickitat River Canyon because they would not be seen. DEA determined the proposed turbines may potentially be visible from the John Day River Canyon, including the Oregon National Historic Trail McDonald Ferry site, and therefore performed the same additional analyses for these resources as described in the ASC, Revised Exhibit R.

The results of the additional analyses are very similar to those described in the ASC, Revised Exhibit R. Figure R-2 illustrates areas within the John Day Corridor Area of High Visual Quality (AHVQ) from which any portion of a turbine may be visible. Figures R-3 through R-12 illustrate the individual results for the ten turbines determined to potentially be visible from the John Day River. Figure R-13 illustrates the composite results of individual analyses, confirms that patterns of potential visibility are very similar as in the ASC, Revised Exhibit R, and validates the location of the viewpoints used in the visual simulations. Figures R-14 through 18 represent visual simulations from Viewpoints 1 through 5 that are in the same locations as in the ASC, Revised Exhibit R. Table R-2 lists

turbines that are visible from each viewpoint and the distance from the viewpoint to the turbines. Turbine X-03 is not included in Table R-2 because it is not visible from Viewpoint 1; it is 2.75 miles away from the river.

Table R- 2. Visible Turbines and Distances from Viewpoints on the John Day River

Viewpoint	Turbine	Distance to Turbine (miles)
1	X-04	2.78
1	X-05	2.82
2	P-01	3.78
2	R-02	3.78
2	R-03	3.84
2	V-01	2.60
3	R-04	3.79
3	V-01	2.50
3	V-02	2.59
4	V-01	2.41
4	V-02	2.50
5	V-01	2.14

Determination of Significance of Potential Impacts

Potential impacts to the significant or important scenic or aesthetic resources are as follows:

Columbia River Gorge National Scenic Area

Impacts are the same as described in the ASC, Revised Exhibit R. The proposed facility would have negligible, if any, impacts on the CRGNSA.

John Day River Canyon

The computer modeling and analyses indicate the proposed changes would result in very similar impacts as described in the ASC, Revised Exhibit R. The proposed facility would be compatible with Bureau of Land Management (BLM) Visual Resource Management (VRM) Class II management objective: "management activities resulting in changes to the existing character of the landscape may be allowed, provided they do not attract the attention of the casual observer" (USDI 2000).

Given the significantly small portion of river that would be affected and the weak nature of the potential impacts, the design, construction, operation, and retirement of the proposed facility would not significantly affect the scenic and aesthetic resources in the John Day River canyon.

Oregon National Historic Trail

Impacts are the same as described in the ASC, Revised Exhibit R.

There would be no impact at Fourmile Canyon, Biggs Junction, the Deschutes River Crossing, and the Dalles Complex because the proposed facility would not be visible.

Portions of turbines X-03, X-04, and X-05 would be visible from the John Day River and small portions of its banks at McDonald Crossing to a very similar degree as described in the ASC, Revised Exhibit R. The proposed facility would not be visible from the BLM interpretive site near McDonald Crossing or from the road accessing the interpretive site. Considering these factors, the proposed facility would not have a significant adverse impact on the resource.

Lower Deschutes River Canyon

Impacts are the same as described in the ASC, Revised Exhibit R. There would be no visual or aesthetic impact to this resource.

Lower Klickitat River Canyon

Impacts are the same as described in the ASC, Revised Exhibit R. There would be no visual or aesthetic impact to this resource.

Journey Through Time Scenic Byway

Impacts are the same as described in the ASC, Revised Exhibit R. The proposed facility would not have significant adverse effects on the Journey Through Time Scenic Byway.

Trees (Sherman County)

Impacts are the same as described in the ASC, Revised Exhibit R. There would be no visual or aesthetic impact to this resource.

(iii) Visual impacts from air emissions resulting from facility construction or operation, including, but not limited to, impacts on Class 1 visual resources as described in OAR 340-031-0120 [renumbered to 340-204-0050].

Response: Impacts are the same as described in the ASC, Revised Exhibit R. Any potential impacts are anticipated to be temporary and negligible. Facility operation will not create air emissions, so there will be no impact. There are no Class 1 visual resources in the analysis area.

R.5 OPPORTUNITY FOR MITIGATION

OAR 345-021-0010(1)(r)(D) *The measures the applicant proposes to avoid, reduce or otherwise mitigate any significant adverse impacts*;

Response: Impacts to vegetation on CRP lands will be mitigated as described in Exhibits I and P. Although no significant adverse impacts to scenic and aesthetic resources have been identified, the Applicant will incorporate best management practices such as using neutral white or gray finishes for the turbines to further reduce visual impacts of the proposed facility.

R.6 MAP

OAR 345-021-0010(1)(r)(E) *A map or maps showing the location of the visible scenic and aesthetic values analyzed under (B)*; and

Response: See Figures R-1 through R-3 in the ASC, Revised Exhibit R.

R.7 MONITORING

OAR 345-021-0010(1)(r)(F) *The applicant's proposed monitoring program, if any, for impacts to scenic and aesthetic values.*

Response: The proposed facility would not result in significant adverse impacts to scenic and aesthetic values, and therefore, the Applicant does not propose an active monitoring program specific to the monitoring for impacts to scenic and aesthetic values. For those impacts to vegetation on CRP lands that will be mitigated as described in Exhibits I and P, monitoring, if any, will occur pursuant to Exhibits I and P. With respect to the Applicant's efforts to incorporate best management practices such as using neutral color matte finishes for the turbines, no ongoing monitoring is proposed for such practices.

R.8 CONCLUSION

The project will comply with all applicable regulatory guidelines concerning scenic and aesthetic resources as discussed in the responses above to the criteria contained in OAR 345-021-0010(l)(r)(A), (B), (C), (D), (E) and (F). Based on the above information, the Applicant has satisfied the requirements in OAR 345-021-0010(1)(r), and the Council may find that the standards contained in OAR 345-022-0080 are satisfied.

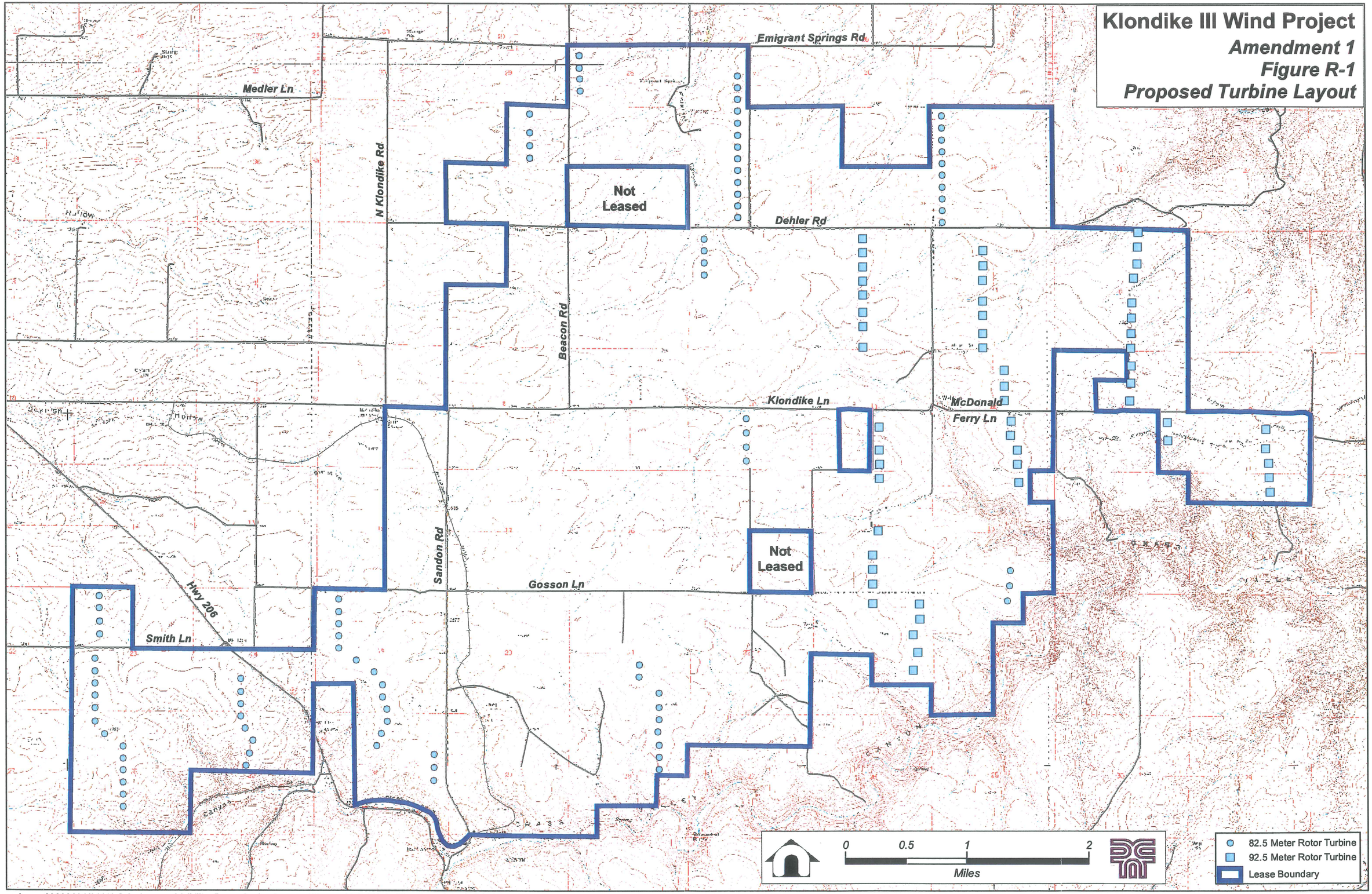
R.9 REFERENCES

USDI Bureau of Land Management. John Day River Proposed Management Plan, Two Rivers and John Day Resource Management Plan Amendments and Final Environmental Impact Statement. June 2000.

APPENDIX R-1

Figures

Klondike III Wind Project
Amendment 1
Figure R-1
Proposed Turbine Layout



p:/ppme00000001/0600info/gs/arcmap/visibility_figures/revised_amend1/amend1_figR1_turbine_layout.mxd July 26, 2006

Klondike III Wind Project

Amendment 1
Figure R-2
Visibility Analysis
John Day Corridor

- 82.5 Meter Rotor Turbine
- 92.5 Meter Rotor Turbine
- Areas of High Visual Quality (BLM, Prineville Dist.)
- Areas within the John Day Corridor where proposed turbines are likely visible

Note:
Visible areas were modeled using a 10 Meter DEM.

RMP 11
RMP 12
RMP 13
RMP 14
RMP 15
RMP 16
RMP 17

McDonald Ferry

BLM Interpretive Site

Map Location

0 0.25 0.5 0.75 1
Miles

p:/ppme00000001/0600info/gs/arcmap/visibility_figures/revised_amend1/amend1_figR2_vis_john_day_072606.mxd July 26, 2006

Klondike III Wind Project
Amendment 1
Figure R-3
Visibility Analysis
Turbine X-05

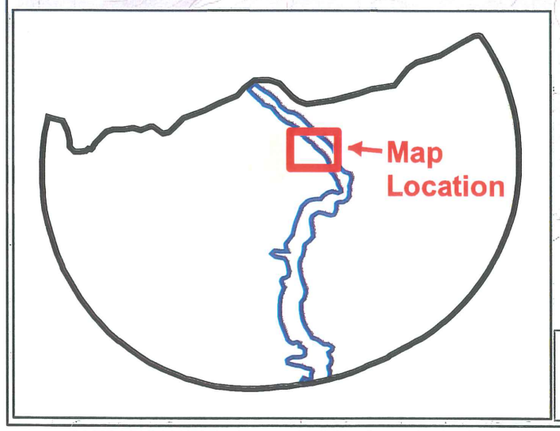
- 82.5 M rotor turbine used in analysis
- 92.5 M rotor turbine used in analysis
- 82.5 M rotor turbine
- 92.5 M rotor turbine
- Areas of High Visual Quality (BLM, Prineville Dist.)
- Areas within the John Day Corridor where proposed turbines are likely visible

Note:
Visible areas were modeled using a 10 Meter DEM.

RMP 11
RMP 12
RMP 13
RMP 14
RMP 15
RMP 16
RMP 17

McDonald Ferry
BLM Interpretive Site

X-05



0 0.25 0.5 0.75 1
Miles

p:/ppme00000001/0600info/gs/arcmap/visibility_figures/revised_amend1/amend1_figR3-12_vis_john_day_072606.mxd July 26, 2006

Klondike III Wind Project

Amendment 1
Figure R-4
Visibility Analysis
Turbine X-04

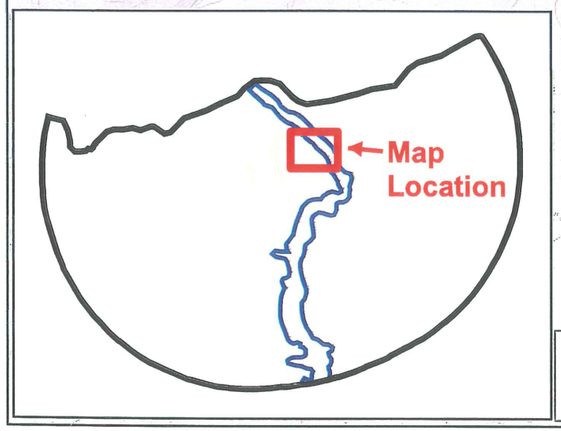
- 82.5 M rotor turbine used in analysis
- 92.5 M rotor turbine used in analysis
- 82.5 M rotor turbine
- 92.5 M rotor turbine
- Areas of High Visual Quality (BLM, Prineville Dist.)
- Areas within the John Day Corridor where proposed turbines are likely visible

Note:
Visible areas were modeled using a 10 Meter DEM.

RMP 11
RMP 12
RMP 13
RMP 14
RMP 15
RMP 16
RMP 17

McDonald Ferry
BLM Interpretive Site

X-04



0 0.25 0.5 0.75 1
Miles

p:/ppme00000001/0600info/gs/arcmap/visibility_figures/revised_amend1/amend1_figR3-12_vis_john_day_072606.mxd July 26, 2006

Klondike III Wind Project

Amendment 1
Figure R-5
Visibility Analysis
Turbine X-03

- 82.5 M rotor turbine used in analysis
- 92.5 M rotor turbine used in analysis
- 82.5 M rotor turbine
- 92.5 M rotor turbine
- Areas of High Visual Quality (BLM, Prineville Dist.)
- Areas within the John Day Corridor where proposed turbines are likely visible

Note:
Visible areas were modeled using a 10 Meter DEM.

RMP 11
RMP 12
RMP 13
RMP 14
RMP 15
RMP 16
RMP 17

McDonald Ferry
BLM Interpretive Site

X-03

Map Location

0 0.25 0.5 0.75 1
Miles

p:/ppme00000001/0600info/gs/arcmap/visibility_figures/revised_amend1/amend1_figR3-12_vis_john_day_072606.mxd July 26, 2006

Klondike III Wind Project

Amendment 1
Figure R-6
Visibility Analysis
Turbine V-03

- 82.5 M rotor turbine used in analysis
- 92.5 M rotor turbine used in analysis
- 82.5 M rotor turbine
- 92.5 M rotor turbine
- Areas of High Visual Quality (BLM, Prineville Dist.)
- Areas within the John Day Corridor where proposed turbines are likely visible

Note:
Visible areas were modeled using a 10 Meter DEM.

RMP 11
RMP 12
RMP 13
RMP 14
RMP 15
RMP 16
RMP 17
V-03
McDonald Ferry
BLM Interpretive Site
Map Location
0 0.25 0.5 0.75 1
Miles

p:/ppme00000001/0600info/gs/arcmap/visibility_figures/revised_amend1/amend1_figR3-12_vis_john_day_072606.mxd July 26, 2006

Klondike III Wind Project

Amendment 1
Figure R-7
Visibility Analysis
Turbine V-02

- 82.5 M rotor turbine used in analysis
- 92.5 M rotor turbine used in analysis
- 82.5 M rotor turbine
- 92.5 M rotor turbine
- Areas of High Visual Quality (BLM, Prineville Dist.)
- Areas within the John Day Corridor where proposed turbines are likely visible

Note:
Visible areas were modeled using a 10 Meter DEM.

RMP 11
RMP 12
RMP 13
RMP 14
RMP 15
RMP 16
RMP 17

V-02

McDonald Ferry

BLM Interpretive Site

Map Location

0 0.25 0.5 0.75 1
Miles

p:/ppme00000001/0600info/gs/arcmap/visibility_figures/revised_amend1/amend1_figR3-12_vis_john_day_072606.mxd July 26, 2006

Klondike III Wind Project

Amendment 1
Figure R-8
Visibility Analysis
Turbine V-01

- 82.5 M rotor turbine used in analysis
- 92.5 M rotor turbine used in analysis
- 82.5 M rotor turbine
- 92.5 M rotor turbine
- Areas of High Visual Quality (BLM, Prineville Dist.)
- Areas within the John Day Corridor where proposed turbines are likely visible

Note:
Visible areas were modeled using a 10 Meter DEM.

RMP 11
RMP 12
RMP 13
RMP 14
RMP 15
RMP 16
RMP 17
V-01
McDonald Ferry
BLM Interpretive Site
Map Location
0 0.25 0.5 0.75 1
Miles

p:/ppme00000001/0600info/gs/arcmap/visibility_figures/revised_amend1/amend1_figR3-12_vis_john_day_072606.mxd July 26, 2006

Klondike III Wind Project

Amendment 1
Figure R-9
Visibility Analysis
Turbine R-04

- 82.5 M rotor turbine used in analysis
- 92.5 M rotor turbine used in analysis
- 82.5 M rotor turbine
- 92.5 M rotor turbine
- Areas of High Visual Quality (BLM, Prineville Dist.)
- Areas within the John Day Corridor where proposed turbines are likely visible

Note:
Visible areas were modeled using a 10 Meter DEM.

RMP 11
RMP 12
RMP 13
RMP 14
RMP 15
RMP 16
RMP 17

R-04

McDonald Ferry

BLM Interpretive Site

Map Location

0 0.25 0.5 0.75 1
Miles

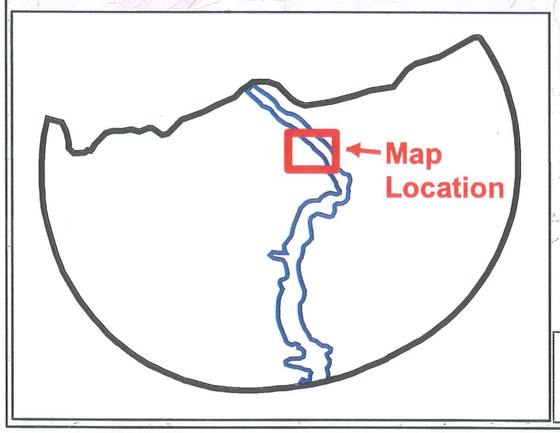
p:/ppme00000001/0600info/gs/arcmap/visibility_figures/revised_amend1/amend1_figR3-12_vis_john_day_072606.mxd July 26, 2006

Klondike III Wind Project
Amendment 1
Figure R-10
Visibility Analysis
Turbine R-03

RMP 11
RMP 12
RMP 13
RMP 14
RMP 15
RMP 16
RMP 17
R-03
McDonald Ferry
BLM Interpretive Site

- 82.5 M rotor turbine used in analysis
- 92.5 M rotor turbine used in analysis
- 82.5 M rotor turbine
- 92.5 M rotor turbine
- Areas of High Visual Quality (BLM, Prineville Dist.)
- Areas within the John Day Corridor where proposed turbines are likely visible

Note:
Visible areas were modeled using a 10 Meter DEM.



0 0.25 0.5 0.75 1
Miles

p:/ppme00000001/0600info/gs/arcmap/visibility_figures/revised_amend1/amend1_figR3-12_vis_john_day_072606.mxd July 26, 2006

Klondike III Wind Project

Amendment 1
Figure R-11
Visibility Analysis
Turbine R-02

- 82.5 M rotor turbine used in analysis
- 92.5 M rotor turbine used in analysis
- 82.5 M rotor turbine
- 92.5 M rotor turbine
- Areas of High Visual Quality (BLM, Prineville Dist.)
- Areas within the John Day Corridor where proposed turbines are likely visible

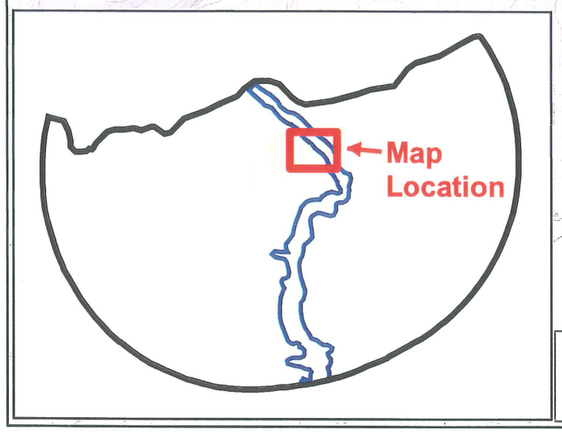
Note:
Visible areas were modeled using a 10 Meter DEM.

RMP 11
RMP 12
RMP 13
RMP 14
RMP 15
RMP 16
RMP 17

R-02

McDonald Ferry

BLM Interpretive Site



0 0.25 0.5 0.75 1
Miles

p:/ppme00000001/0600info/gs/arcmap/visibility_figures/revised_amend1/amend1_figR3-12_vis_john_day_072606.mxd July 26, 2006

Klondike III Wind Project
Amendment 1
Figure R-12
Visibility Analysis
Turbine P-01

- 82.5 M rotor turbine used in analysis
- 92.5 M rotor turbine used in analysis
- 82.5 M rotor turbine
- 92.5 M rotor turbine
- Areas of High Visual Quality (BLM, Prineville Dist.)
- Areas within the John Day Corridor where proposed turbines are likely visible

Note:
Visible areas were modeled using a 10 Meter DEM.

RMP 11
RMP 12
RMP 13
RMP 14
RMP 15
RMP 16
RMP 17
P-01
McDonald Ferry
BLM Interpretive Site
Map Location
0 0.25 0.5 0.75 1
Miles

p:/ppme00000001/0600info/gs/arcmap/visibility_figures/revised_amend1/amend1_figR3-12_vis_john_day_072606.mxd July 26, 2006

Klondike III Wind Project
Amendment 1
Figure R-13
Composite Visibility Analysis
John Day Corridor

RMP 11
RMP 12
RMP 13
RMP 14
RMP 15
RMP 16
RMP 17

P-01
R-02
R-03
R-04
V-01
V-02
V-03
X-03
X-04
X-05

1
2
3
4
5

McDonald Ferry
BLM Interpretive Site

Viewpoint on John Day River
82.5 M rotor turbine likely visible from John Day River
92.5 M rotor turbine likely visible from John Day River
82.5 M rotor turbine not likely visible from John Day River
92.5 M rotor turbine not likely visible from John Day River
Areas of High Visual Quality (BLM, Prineville Dist.)

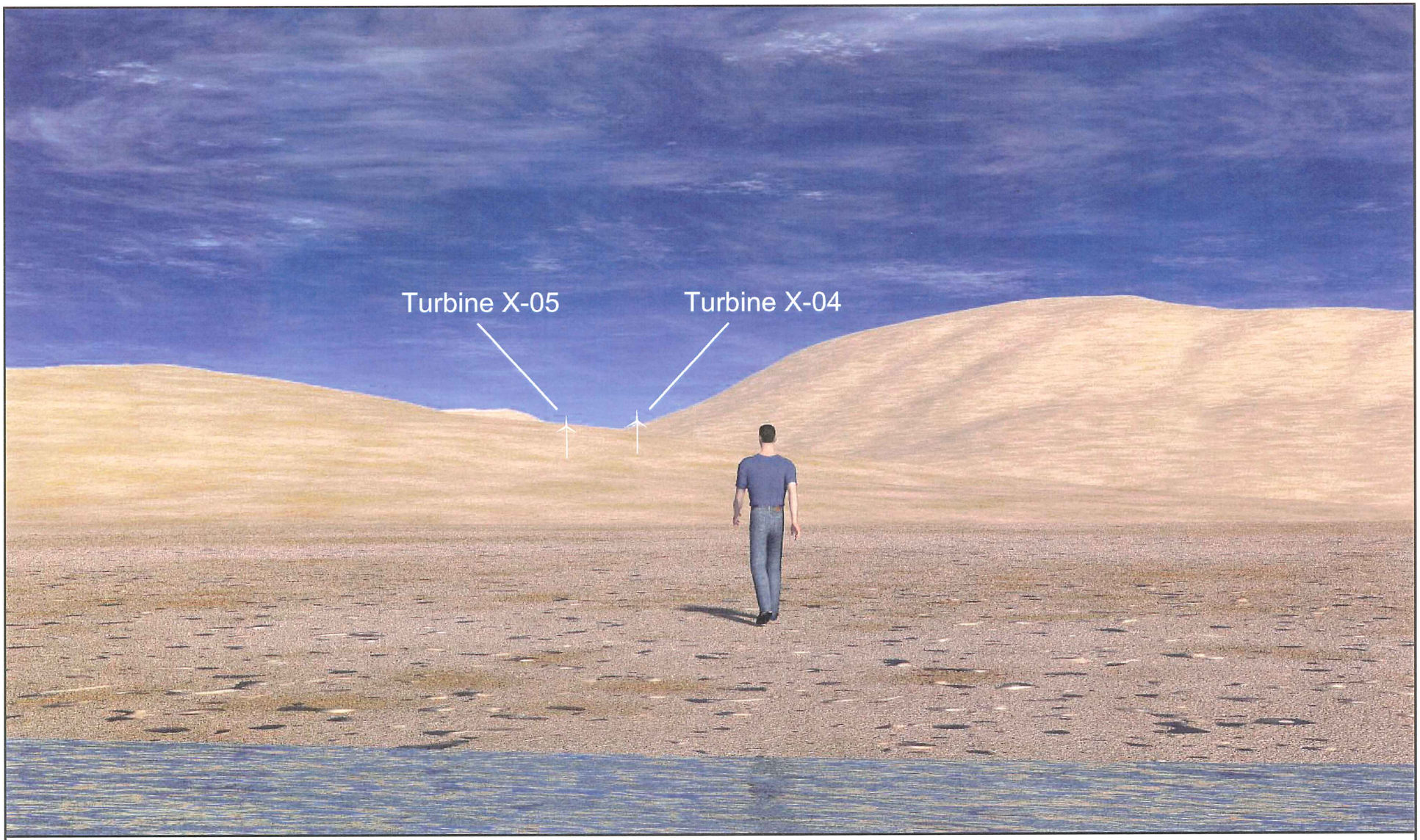
Number of turbines likely visible:
1
2
3
4
> 4

Note:
Visible areas shown are for the 10 turbines identified as potentially visible from the John Day River. Visible areas were modeled using a 10 Meter DEM.

Map Location

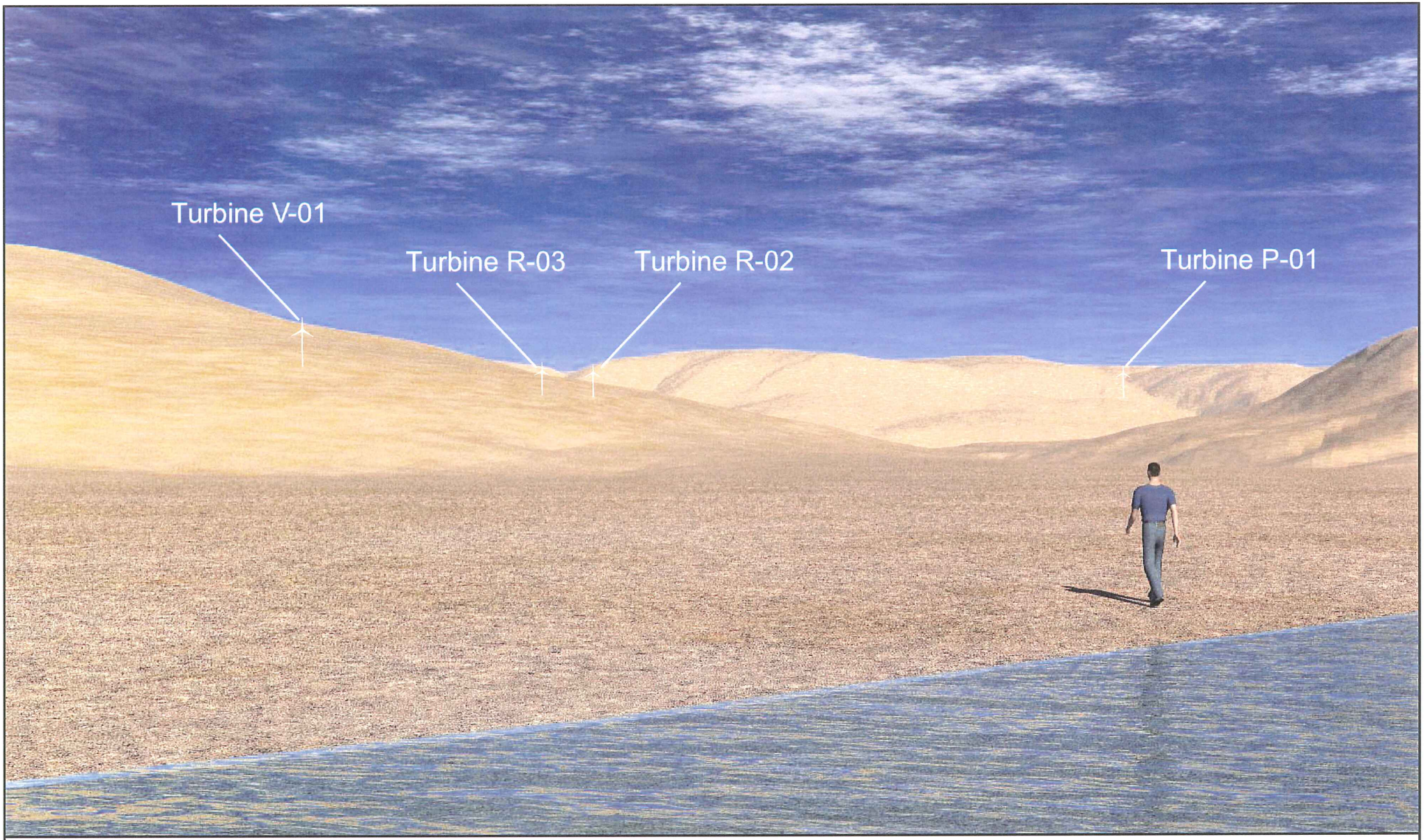
0 0.25 0.5 0.75 1
Miles

p:/ppme00000001/0600info/gs/arcmap/visibility_figures/revised_amend1/amend1_figR13_vis_composite_072606.mxd July 26, 2006



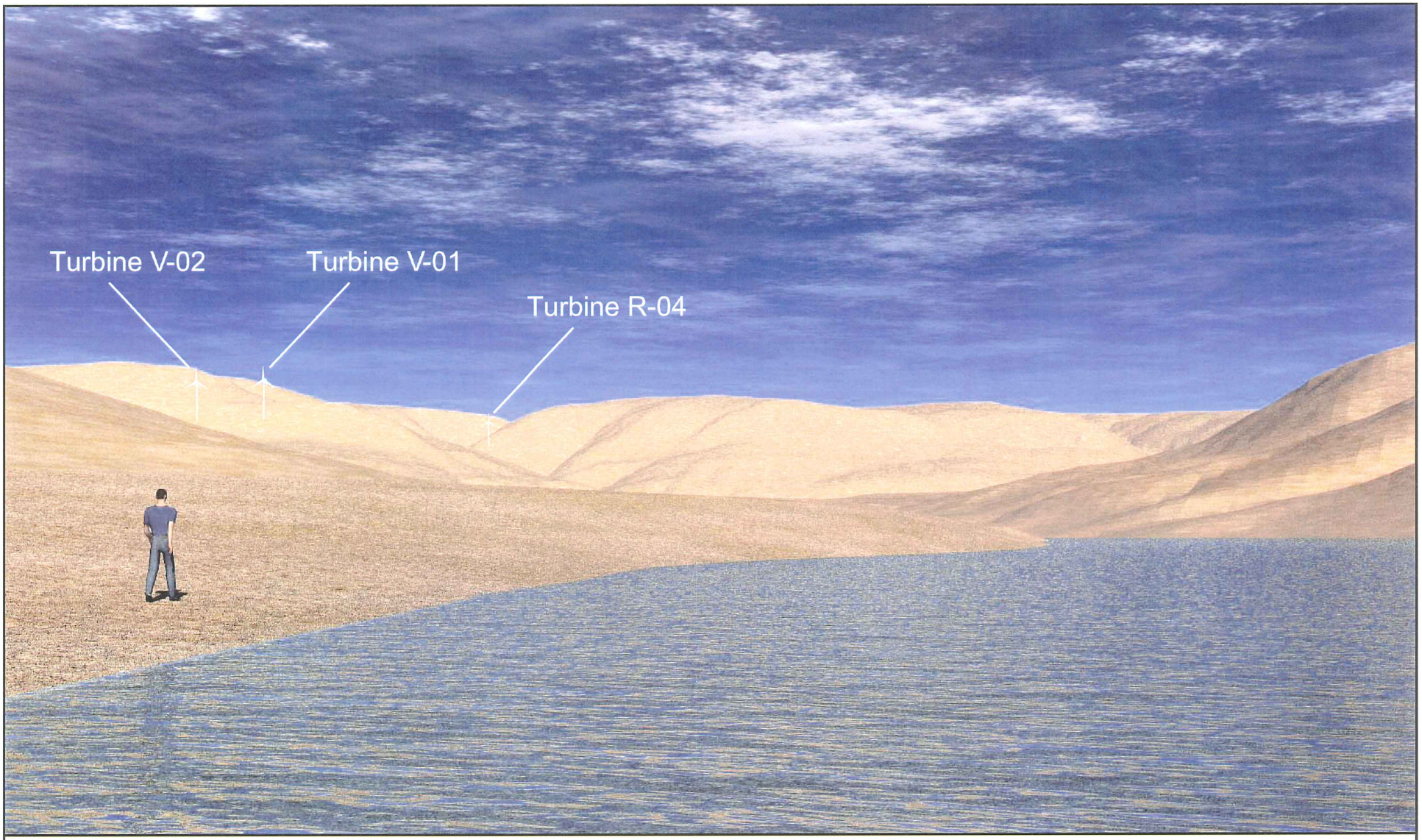
Note: Turbines X-04 and X-05 are actually situated behind the ridgeline seen in this simulation. Because the visible portions are so small and could potentially be overlooked by the reviewer, the turbines have been superimposed in front of the ridgeline to illustrate their relative scale of appearance. Only the portions of the turbines above the ridgeline would be seen from the viewpoint.

Klondike III Wind Project
Amendment 1
Figure R-14
Viewpoint 1 Visual Simulation



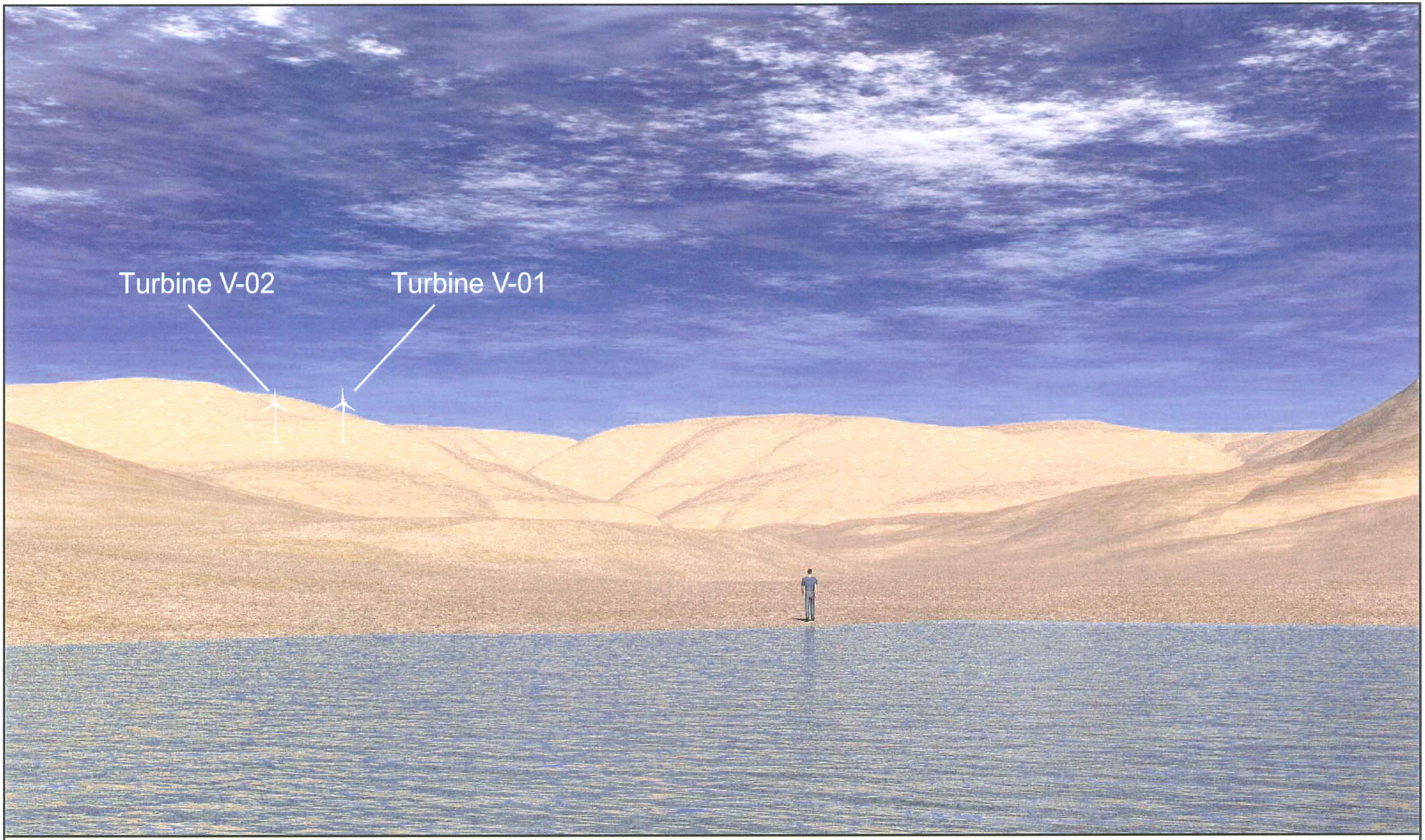
Note: Turbines P-01, R-02, R-03 and V-01 are actually situated behind the ridgeline seen in this simulation. Because the visible portions are so small and could potentially be overlooked by the reviewer, the turbines have been superimposed in front of the ridgeline to illustrate their relative scale of appearance. Only the portions of the turbines above the ridgeline would be seen from the viewpoint.

Klondike III Wind Project
Amendment 1
Figure R-15
Viewpoint 2 Visual Simulation



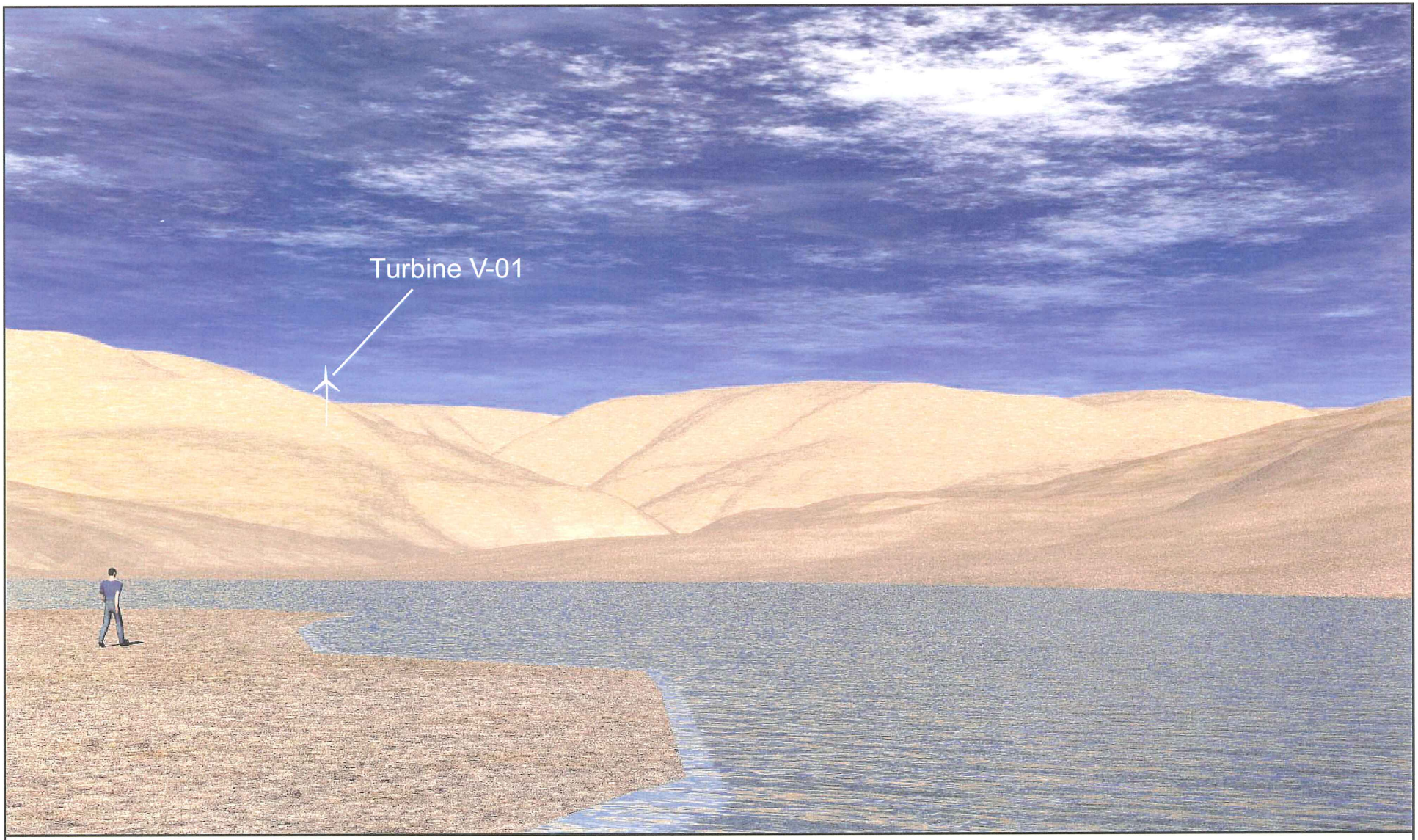
Note: Turbines R-04, V-01, and V-02 are actually situated behind the ridgeline seen in this simulation. Because the visible portions are so small and could potentially be overlooked by the reviewer, the turbines have been superimposed in front of the ridgeline to illustrate their relative scale of appearance. Only the portions of the turbines above the ridgeline would be seen from the viewpoint.

Klondike III Wind Project
Amendment 1
Figure R-16
Viewpoint 3 Visual Simulation



Note: Turbines V-01 and V-02 are actually situated behind the ridgeline seen in this simulation. Because the visible portions are so small and could potentially be overlooked by the reviewer, the turbines have been superimposed in front of the ridgeline to illustrate their relative scale of appearance. Only the portions of the turbines above the ridgeline would be seen from the viewpoint.

Klondike III Wind Project
Amendment 1
Figure R-17
Viewpoint 4 Visual Simulation



Note: Turbine V-01 is actually situated behind the ridgeline seen in this simulation. Because the visible portion is so small and could potentially be overlooked by the reviewer, the turbine has been superimposed in front of the ridgeline to illustrate the relative scale of appearance. Only the portions of the turbine above the ridgeline would be seen from the viewpoint.

Klondike III Wind Project
Amendment 1
Figure R-18
Viewpoint 5 Visual Simulation

EXHIBIT S

HISTORIC, CULTURAL AND ARCHAEOLOGICAL RESOURCES
OAR 345-021-0010(1)(s)

TABLE OF CONTENTS

S.1 INTRODUCTION

OAR 345-021-0010(1)(s) *Information about historic, cultural and archaeological resources providing evidence to support a finding by the Council as required by OAR 345-022-0090, including:*

Response: OAR 345-022-0090 states in full:

> *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that the construction, operation and retirement of the facility, taking into account mitigation, are not likely to result in significant adverse impacts to:*
>
> *(a) Historic, cultural or archaeological resources that have been listed on, or would likely be listed on the National Register of Historic Places;*
>
> *(b) For a facility on private land, archaeological objects, as defined in ORS 358.905(1)(a), or archaeological sites, as defined in ORS 358.905(1)(c); and*
>
> *(c) For a facility on public land, archaeological sites, as defined in ORS 358.905(1)(c)*
>
> *(2) The Council may issue a site certificate for a facility that would produce power from wind, solar or geothermal energy without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.*
>
> *(3) The Council may issue a site certificate for a special criteria facility under OAR 345-015-0310 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.*

This Exhibit provides information about historic, cultural, and archaeological resources within the expanded site boundary that will support a finding by the Council as set forth above. The methods used in the historic, cultural, and archaeological investigation performed for this amendment are the same as those used for the permitted site boundary; detail is provided in the technical report prepared for the project, which is included as Appendix S-1.

S.2 RESOURCES LISTED OR ELIGIBLE FOR LISTING UNDER NATIONAL REGISTER OF HISTORIC PLACES

OAR 345-021-0010(1)(s)(A) *Historic and cultural resources within the analysis area that have been listed, or would likely be eligible for listing, on the National Register of Historic Places;*

Response: A potential historic site, an old homestead, may be eligible for listing on the National Register of Historic Places; however, additional fieldwork and analysis, as described below, are needed to make a final determination.

As noted in the ASC, the Oregon Trail alignment through the Klondike III project area is a designated historic trail under both federal and state statutes, but no intact segments were documented in the expanded site boundary.

S.3 ARCHAEOLOGICAL OBJECTS AND SITES ON PRIVATE LANDS

OAR 345-021-0010(1)(s)(B) *For private lands, archaeological objects, as defined in ORS 358.905(1)(a), and archaeological sites, as defined in ORS 358.905(1)(c), within the analysis area;*

Response: Additional surveys or testing have been recommended by the consulting archaeologist at three locations within the expanded boundary, as documented in Appendix S-1. Two of these areas lacked adequate visibility due to crop cover to determine whether a cultural resource existed at the locations. The pedestrian survey will be redone when the wheat crop has been harvested. An historic period homestead was also found, and shovel testing recommended. When complete, the results of the additional analysis will be provided to the Department.

Several historic and archaeological isolates were also found within the expanded boundary. It is the general policy of the Oregon SHPO that archaeological isolates are not significant resources and are not eligible for listing in the NRHP. The specific isolates identified within the expanded site are therefore not significant resources. No mitigation measures are therefore necessary to address possible project effects to these resources.

S.4 ARCHAEOLOGICAL OBJECTS AND SITES ON PUBLIC LANDS

OAR 345-021-0010(1)(s)(C) *For public lands, archaeological sites, as defined in ORS 358.905(1)(c), within the analysis area;*

Response: The Klondike III Wind Project is located entirely on private lands; therefore, an investigation of public lands was not conducted. The only public lands within the site boundaries were rights-of-way along County roads where road improvements have been proposed. No archaeological objects or sites were located on these lands.

S.5 IMPACTS OF PROPOSED PROJECT ON HISTORIC, CULTURAL AND ARCHAEOLOGICAL RESOURCES

OAR 345-021-0010(1)(s)(D) *The significant potential impacts, if any, of the construction, operation and retirement of the proposed facility on the resources described in paragraphs (A), (B) and (C) and a plan for protection of those resources that includes at least the following:*

(i) A description of any discovery measures, such as surveys, inventories, and limited subsurface testing work, recommended by the State Historic Preservation Officer and the National Park Service of the U.S. Department of Interior for the purpose of locating, identifying and assessing the significance of resources listed in OAR paragraphs (A), (B), and (C);

(ii) The results of surveys, inventories, and subsurface testing work recommended by the state and federal agencies listed in subparagraph (i), together with an explanation by the applicant of any variations from the survey, inventory, or testing recommended;

(iii) A list of measures to prevent destruction of the resources identified during surveys, inventories and subsurface testing referred to in subparagraph (i) or discovered during construction; and

(iv) A completed copy of any permit applications submitted pursuant to ORS 358.920. Notwithstanding OAR 345-021-0000(4), the applicant shall include copies of the permit applications as part of the site certificate application. If the same information required by subparagraphs (i) through (iii) above is contained in the permit applications, then the applicant may provide cross-references to the relevant sections of the permit applications in substitution; and

Response: No State of Oregon Archaeological Permit was required for the pedestrian field studies within the expanded site boundary, as no subsurface probes were excavated, either in an identified archaeological site or as exploratory probes. However, shovel tests were recommended by the consulting archaeologist, and will be completed under the appropriate permit issued by SHPO before any potential impact occurs in these areas. The application for that permit is attached as Appendix S-2. The results of this work will be provided to SHPO and the Department prior to construction in these areas.

If, as a result of the additional testing, any of the resources is determined to be significant, they will be avoided, by the collector lines proposed in the area where shovel tests have been recommended. Therefore, no impact is anticipated to cultural resources from this project.

S.6 PROPOSED MONITORING PROGRAM

OAR 345-021-0010(1)(s)(E) *The applicant's proposed monitoring program, if any, for impacts to historic, cultural and archaeological resources during construction, operation and retirement of the proposed facility;*

Response: Survey results have shown that there may be a significant historic resource within the expanded site boundary where collector lines are proposed. If additional study determines the site is significant, it will be avoided. Therefore, no formal monitoring plan is proposed. If unanticipated archaeological or historical resources are encountered during project construction, ground-disturbing activity in the vicinity of the find will be halted, in accordance with Oregon State law (ORS 97.745 and 358.920). The Oregon

SHPO will be promptly notified to assure compliance with relevant state and federal laws and regulations, and a qualified archaeologist would be consulted.

S.7 CONCLUSION

As demonstrated in this Exhibit, the facility is not likely to result in significant adverse impacts to archaeological resources, because only scattered isolates occur within the site boundary; if further study determines that there is a significant resource, it will be avoided by realigning or relocating project features. The expanded project is not likely to have direct effects on the Oregon Trail, because no intact sections remain within the site boundary.

Based on above information, the applicant has satisfied the requirements in OAR 345-0021-0010(1)(s), and the Council may find that the requirements in OAR 345-022-0090 are satisfied.

S.8 REFERENCES

Archaeological Investigations Northwest, Inc. 2006. A Supplemental Cultural Resource Survey for the Proposed Klondike III Wind Project, Sherman County, Oregon.

APPENDIX S-1

Cultural Resources Analysis Report

APPENDIX S-2

Application for State of Oregon Archaeological Permit

EXHIBIT W

FACILITY RETIREMENT AND SITE RESTORATION
OAR 345-021-0010(1)(w)

TABLE OF CONTENTS

W.1 INTRODUCTION

OAR 345-021-0010(1)(w) *Information about facility retirement and site restoration, providing evidence to support a finding by the Council as required by OAR 345-022-0050(1). The applicant shall include:*

Response: The requested changes in the site boundary for the project will have no affect on restoring the site to a useful, non-hazardous condition that allows continued use for agriculture. The construction and operation of the facility involve minimal amounts of hazardous material and solid waste. Therefore, restoring the site to a useful, non-hazardous condition would require simple removal of all project features to below grade and subsequent soil restoration and revegetation.

W.2 USEFUL LIFE

OAR 345-021-0010(1)(w)(A) *The estimated useful life of the proposed facility;*

Response: No change to the estimated useful life of the facility will result from the requested changes. It is anticipated to have a useful life of 25 to 30 years, and the financial calculations in this exhibit are based on that assumption; however, the project may be repowered at that time by upgrading existing towers and other infrastructure with more efficient turbines and related equipment.

W.3 RETIREMENT AND SITE RESTORATION

OAR 345-021-0010(1)(w)(B) *The actions that the applicant proposes for retirement of the facility and restoration of the site to a useful, non-hazardous condition;*

Response: There is no change in the type of actions the certificate holder would have to take to retire the facility and reclaim the site to useful condition as a result of the requested changes

W.4 ESTIMATED COST OF RETIREMENT

OAR 345-021-0010(1)(w)(C) *The estimated costs to retire the facility and restore the site to a useful, non-hazardous condition and a discussion of the methods and assumptions used to estimate retirement and restoration costs; and*

Response:

The Certificate Holder estimated in the ASC the cost of retiring the project and restoring the site based the cost of removal, minus the scrap value of the components in the turbines. The Certificate Holder's estimate for the net retirement cost was $1,534,469. The Department provided its own estimate of the cost of removal and an estimate of the scrap value of the components. The dollar estimate was based on 165 turbines (total 36,368 net tons), and the net retirement cost was estimated to be $2,200,791 in 2005 dollars.

For calculating the net retirement cost of the new layout contemplated by the first amendment, which would have as few as 147 turbines, the cost would similarly be calculated as follows:

220.41 net ton per unit for the 82.5m rotor x 85 units +

292.99 net ton per unit for the 92.5m rotor x 62 units =

36,900 total net tons

Therefore, the revenue from the scrap value of steel would be higher than for the permitted project. Fewer turbines, though larger, would be less costly to remove than more, smaller units. Therefore, using a worst case analysis, the bond amount of $2,201,000 calculated for the permitted project would still be valid, and would be more than adequate to retire the facility as described in this amendment.

W.5 PROPOSED MONITORING PLAN FOR HAZARDOUS MATERIALS

OAR 345-021-0010(1)(w)(D) *For facilities that might produce site contamination by hazardous materials, any proposed monitoring plan, such as periodic environmental site assessment and reporting, or an explanation why a monitoring plan is unnecessary.*

Response: A monitoring plan, such as periodic environmental site assessment and reporting would be unnecessary at this site because the facility will not produce any site contamination by hazardous materials.

W.6 CONCLUSION

Based on the above information, the applicant has satisfied the required OAR 345-021-0010(1)(w), and the Council may find the standard contained in OAR 345-022-0050 is satisfied.

EXHIBIT X

NOISE
OAR 345-021-0010(1)(x)

TABLE OF CONTENTS

APPENDIX

X.1 INTRODUCTION

OAR 345-021-0010(1)(x) *Information about noise generated by construction and operation of the proposed facility, providing evidence to support a finding by the Council that the proposed facility complies with the Oregon Department of Environmental Quality's noise control standards in OAR 340-035-0035. The applicant shall include:*

Response: This amendment seeks to allow additional turbine types at the KIII project, all located within the currently permitted micro-siting corridors. Generally, these turbines have 2.3 MW of generating capacity with maximum sound power levels of 107 dBA; however, a single turbine will have 2.4 MW of generating capacity, with a maximum sound power level of 110 dBA. The noise re-analysis and turbine layout configuration for this change is provided in Appendix X-2.

OAR-345-021-0010(1)(x)(A) *A baseline noise assessment for the proposed site and vicinity;*

Response: As with the ASC, the assumed background level of 26 dBA was used as the baseline to represent existing noise conditions.

X.2 PREDICTED NOISE LEVELS

OAR-345-021-0010(1)(x)(B) *Predicted noise levels resulting from construction and operation of the proposed facility;*

X.2.1 Construction Noise

Response: Construction noise during construction is not anticipated to change as a result of the project changes, because the same types of equipment will be used.

X.2.2 Operations Noise

Response: The new turbines will generate 2.3 MW of electrical power and have a maximum sound power level of 107 dBA; a single turbine will generate 2.4 MW of power and have a maximum sound power level of 110 dBA. The turbines will be located within the 900-foot micro-siting corridors currently authorized by the Site Certificate.

X.3 COMPLIANCE WITH OAR 340-035-0035

OAR 345-021-0010(1)(x)(C) *An assessment of the proposed facility's compliance with the applicable noise regulations in OAR 340-035-0035;*

Response: The applicable noise regulations have not changed since submittal of the ASC and are the standards against which the amended project is compared. The amended facility will comply with noise regulations because noise waivers (enclosed as Appendix X-1) have been obtained from the four property owners that may experience noise above the regulatory limit. A fifth property was analyzed (TWE 2006), and it was determined that the noise limit was not exceeded at this property. Reanalysis of the maximum sound

levels to be experienced at these properties also concluded that DEQ noise impact standards are met (TWE 2006).

X.4 DESCRIPTION OF PROPOSED MITIGATION MEASURES

OAR 345-021-0010(1)(x)(D) *Any measures the applicant proposes to reduce noise levels or noise impacts;*

Response: Noise levels are not projected to exceed DEQ noise impact criteria. At four properties, however, noise levels are predicted to exceed the 10 dBA increase criteria, and waivers have been obtained from the affected property owners. Even with maximum expected sound levels from the wind turbines, overall noise levels would be relatively low (45 dBA or less). At a fifth receptor, turbines were reconfigured, reducing the predicted ambient increase to 10 dBA, for an overall noise level of 36 dBA. No further mitigation is required or proposed.

X.5 ASSUMPTIONS AND METHODS

OAR 345-021-0010(1)(x)(E) *The assumptions and methods used in the noise analysis; and*

Response: The assumptions and modeling methods used to analyze the effects of the amended project are the same as described in Appendix X-2.

The project noise sources with the potential to cause noise impacts are:

Wind Turbines: The maximum noise levels of the wind turbines were supplied by the manufacturers, and range from 106 dBA to 110 dBA. As wind speed increases from cut-in wind speed to cut-out wind speed, the noise level increases. The maximum sound power level for the wind turbines at cut-out speed was used in this analysis.

Transformers: The three transformers analyzed for this amendment are of the same type and in the same locations for the amended project as for the currently permitted project.

The same predictive model was use to analyze noise levels for the amended project as for the currently permitted project. The maximum sound power level octave band data was supplied by the turbine manufacturers. Other inputs included a hub height of 80 meters and a maximum rotor diameter of 92.5 meters, also based on manufacturer data.

X.6 MONITORING PROGRAM

OAR 345-021-0010(1)(x)(F) *The applicant's proposed monitoring program, if any, for noise generated by construction and operation of the facility.*

Response: Because no significant noise impacts are predicted, no monitoring program is proposed.

X.7 CONCLUSION

The noise levels anticipated to be generated by the facility do not exceed specific regulatory levels and are not expected to be significant. To the extent that the project will increase the L_{10} or L_{50} by 10 dBA or more at several noise sensitive properties, the Certificate Holder has obtained noise waivers.

X.8 REFERENCES

TW Environmental, Inc. (TWE). 2006. Unpublished Noise Analysis Report for the Amended Klondike III Wind Project.

APPENDIX X-1

Noise Waivers

AFTER RECORDING, RETURN TO:

Stoel Rives LLP
900 SW Fifth Avenue, Suite 2600
Portland, OR 97204
Attn: Karen E. Jones

(Space above this line for recorder's use only)

NOISE EASEMENT AGREEMENT

This **NOISE EASEMENT AGREEMENT** (this "**Agreement**") is made and entered into as of April 06, 2006, 2006 (the "**Effective Date**"), by and between **STEVENS FAMILY FARMS, LLC**, an Oregon limited liability company (whether one or more, "**Grantor**"), and **KLONDIKE WIND POWER III LLC**, an Oregon limited liability company, its successors and assigns ("**Grantee**"), with reference to the following recitals. Grantor and Grantee may hereafter be referred to as, together, the "**Parties**" and each, a "**Party**".

RECITALS

A. Grantee is a wind farm developer that desires to develop, construct and operate a renewable wind power project consisting of wind-powered turbines and generators capable of producing electricity and associated appurtenances, equipment, facilities and roadways that will produce and transmit electrical energy, including without limitation related power lines, and other equipment and facilities used or useful in connection with the production and transmission of electrical energy (the "**Wind Project**") on lands located in the County of Sherman, State of Oregon that are described in Grantee's Application for Site Certificate to the Oregon Energy Facility Siting Council, as deemed complete by the Oregon Department of Energy on February 6, 2006 (the "**Wind Project Property**").

B. Grantor is the owner of that certain property located in Sherman County, Oregon, more particularly described on **Exhibit A** attached hereto and made a part hereof (the "**Property**"), some or all of which Property is a part of the Wind Project Property.

C. Grantor has been advised and is of the opinion that construction, operation, and maintenance of the Wind Project (collectively, "**Wind Project Operations**") on the Wind Project Property may subject the Property to noise influence that may exceed noise level standards established by the Oregon Department of Environmental Quality ("**DEQ**") for new industrial or commercial noise sources (hereinafter, the "**DEQ New Noise Source Standards**"); that these present and future noise influences might be annoying to users of the Property for its stated purpose and might interfere with the

unrestricted use and enjoyment of the Property in its intended use; that these noise influences might change over time by virtue of construction activities, maintenance, seasonal wind variations, and time-of-day wind variations; that changes in Wind Project Operations could result in increased noise influences; and that Grantor's or the user's own personal perceptions of the noise exposure could change and that Grantor's sensitivity to Wind Project noise could increase.

D. Grantee wishes to obtain from Grantor, on the terms stated below, a nonexclusive easement to allow the Wind Project and the Wind Project Operations to increase the ambient statistical noise levels L10 and L50 by more than 10 dBA at the appropriate measurement point (but not above limits specified in Table 8 of OAR Chapter 340, Division 035 (2005)). Grantor is willing to grant Grantee the easement on the terms and provisions set forth herein.

AGREEMENT

NOW, THEREFORE, in accordance with Oregon Administrative Rule ("OAR") 340-035-0035(1)(b)(B)(iii), Grantor conveys to the Grantee, a nonexclusive easement and waiver as follows:

1. **Grant of Easement; Term**. For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by Grantor, Grantor hereby conveys and grants to Grantee a nonexclusive easement to allow the Wind Project and the Wind Project Operations to increase the ambient statistical noise levels L10 and L50 by more than 10 dBA at the appropriate measurement point (but not above limits specified in Table 8 of OAR Chapter 340, Division 035 (2005)) ("**Permitted Noise Levels**") for the benefit of the Wind Project Property, including the Property (the "**Noise Easement**"). The Noise Easement shall be and remain in effect until the earlier to occur of (i) the date on which all operations of the Wind Project are permanently discontinued or (ii) the date on which Grantee's leasehold interest in the Property (as the same is renewed or extended) permanently terminates.

2. **Waiver**. Grantor, for and on behalf of itself, its successors and assigns, waives and releases any right, claim, or cause of action which Grantor has now, or which Grantor may have in the future, against, and covenants not to sue, Grantee and/or its past, present, and future officers, officials, directors, employees, agents, sublessees, successors and assigns, as a direct or indirect result of the Permitted Noise Levels on the Property that may be caused by the Wind Project or the Wind Project Operations.

3. **Governing Law**. This Agreement shall be governed by the laws of the State of Oregon.

4. **Authority**. The signatories hereto warrant that they have the authority to execute this Agreement on behalf of Grantor and Grantee, as the case may be, and that any entity on whose behalf they are signing has executed this Agreement pursuant to its governing documents or a resolution of those having the power to control its affairs of this nature.

5. **Successors and Assigns.** The Noise Easement shall be appurtenant to Grantee's rights and interests in the Property, and shall run with the land as to the Property. This Agreement shall inure to the benefit of and be binding on the heirs, successors, assigns and personal representatives of the Parties hereto. Grantee shall have the right without Grantor's consent to sell, convey, lease, or assign all or any portion of its interest under this Agreement to one or more persons or entities.

6. **Continuing Nature**. Grantor, for and on behalf of itself, its successors and assigns, further acknowledges that this Agreement contemplates and includes all existing and future Wind Project Operations on the Wind Project Property, so long as the operations are conducted in compliance with the

requirements of applicable laws and regulations and the terms and conditions of the Wind Site Lease Agreement between the Parties.

7. **Further Acts and Assurances**. Each Party hereby agrees that each shall execute such additional documents or instruments, and shall undertake such actions as are necessary and appropriate to effectuate the intent of this Agreement.

8. **Severability**. Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be valid, binding and enforceable under applicable law, but if any provision of this Agreement is held to be invalid, void (or voidable) or unenforceable under applicable law, such provision shall be ineffective only to the extent held to be invalid, void (or voidable) or unenforceable, without affecting the remainder of such provision or the remaining provisions of this Agreement.

9. **Attorneys' Fees**. In the event suit, arbitration or action is instituted to interpret or enforce the terms of this Agreement or to rescind this Agreement, the prevailing party shall be entitled to recover from the other party such sum as the court may adjudge reasonable as attorneys' fees at trial, on any appeal, and on any petition for review, in addition to all other sums provided by law.

10. **Counterparts**. This Agreement may be executed in counterparts, each of which shall be deemed an original and all of which when taken together shall constitute one and the same document.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first set forth above.

GRANTOR:

STEVENS FAMILY FARMS, LLC,
an Oregon limited liability company

By: Stevens Family Farms LLC
Name: [illegible]
Title: Mgr

GRANTEE:

JSh
J.W.

KLONDIKE WIND POWER III LLC,
an Oregon limited liability company

By: [signature]
Name: Joan Wilson
Title: Vice President Business Development

STATE OF OREGON)
)ss.
COUNTY OF Multnomah)

This instrument was acknowledged before me on this 6 day of April, 2006, by H.A. Stevens for Stevens Family Farms, LLC, an Oregon limited liability company.

Notary Public for Oregon
My commission expires: October 23, 2009

Sharon L Brown

OFFICIAL SEAL
SHARON L BROWN
NOTARY PUBLIC-OREGON
COMMISSION NO. 398681
MY COMMISSION EXPIRES OCTOBER 23, 2009

STATE OF OREGON)
)ss.
COUNTY OF MULTNOMAH)

This instrument was acknowledged before me on this 18 day of April, 2006, by Jean Wilson, VP of Klondike Wind Power III LLC, an Oregon limited liability company, on behalf of such limited liability company.

Notary Public for Oregon
My commission expires: 12/12/08

Carrie A Tracy

OFFICIAL SEAL
CARRIE A. TRACY
NOTARY PUBLIC-OREGON
COMMISSION NO. 387604
MY COMMISSION EXPIRES DECEMBER 12, 2008

Exhibit A

Description of the Property

Real property situated in the County of Sherman, State of Oregon, hereby described as follows:

Parcel 1: (1N18-100)

The Northeast Quarter of Section 1, Township 1 North, Range 18, East of the Willamette Meridian, Sherman County, Oregon; Excepting therefrom any and all roads.

Parcel 2: (1N18-3700)

The South Half of Section 20; the South Half of Section 21; the North Half, Northwest Quarter of the Southeast Quarter, North Half of Southwest Quarter and the Southwest Quarter of the Southwest Quarter of Section 28; All being in Township 1 North, Range 18, East of the Willamette Meridian, Sherman County, Oregon;

ALSO all of Section 29, Township 1 North, Range 18, East of the Willamette Meridian, Sherman County, Oregon; Excepting therefrom that property deeded to Oregon-Washington Railroad and Navigation Company in Warranty Deed recorded February 7, 1949 in Book 29, Page 518, Records of Sherman County, Oregon;

ALSO a tract of land 20 rods square out of the Northwest corner of the Northeast Quarter of Section 32, Township 1 North, Range 18, East of the Willamette Meridian, Sherman County, Oregon;

Excepting therefrom any and all roads, highways, railroads and rights of way.

Parcel 3: (1N19-800)

The Northeast Quarter and the East Half of the Northwest Quarter of Section 6, Township 1 North, Range 19, East of the Willamette Meridian, Sherman County, Oregon.

Parcel 4: (1N19-900)

Lots 4 and 5 of Section 6, Township 1 North, Range 19, East of the Willamette Meridian, Sherman County, Oregon.

Parcel 5: (1N19-1000)

The South Half of Section 6, (being Lots 6 and 7, the East Half of the Southwest Quarter, and the Southeast Quarter) Township 1 North, Range 19, East of the Willamette Meridian, Sherman County, Oregon.

Parcel 6: (1N19-1100)

The Northeast Quarter of Section 7, Township 1 North, Range 19, East of the Willamette Meridian, Sherman County, Oregon; Excepting therefrom any and all roads.

Parcel 7: (1N19-1200)

The Southeast Quarter of the Northwest Quarter of Section 7, Township 1 North, Range 19, East of the Willamette Meridian, Sherman County, Oregon; Excepting therefrom any and all roads.

Parcel 8: (1N19-1600)

The East Half of the Southeast Quarter of Section 7; West Half of Southwest Quarter of Section 8; and a tract of land in the East Half of the Southwest Quarter of Section 8, described as follows: Beginning at a point 80 rods East of the Northwest corner of the Southwest Quarter of Section 8; thence East 70 rods; thence South 160 rods; thence West 70 rods; thence North 160 rods to point of beginning; Also the North Half of the Northeast Quarter and the Northeast Quarter of Northwest Quarter of Section 17; all in Township 1 North, Range 19, East of the Willamette Meridian, Sherman County, Oregon; Excepting therefrom any and all roads.

Parcel 9: (1N19-1900)

The Southeast Quarter of Section 8, Township 1 North, Range 19, East of the Willamette Meridian, Sherman County, Oregon; ALSO that certain parcel of land situated in the East Half of the Southwest Quarter of Section 8, described as follows: Beginning at the center point of Section 8; running thence West 10 rods; thence South 160 rods; thence East 10 rods; thence North 160 rods to the place of beginning; Excepting therefrom any and all roads.

Parcel 10: (2N18-9300)

The West Half of Section 36, Township 2 North, Range 18, East of the Willamette Meridian, Sherman County, Oregon; Excepting therefrom any and all roads.

Parcel 11: (2N18-9400)

The East Half of Section 36, Township 2 North, Range 18, East of the Willamette Meridian, Sherman County, Oregon; Excepting therefrom any and all roads.

060301

STATE OF OREGON }
County of Sherman } ss.

I hereby certify that this document was received and recorded on 6-8-2006 at 12:20 P M and assigned No. 060301 in the Microfilm Deed Records of said county A&T 11 LC 10 Recording 25
Linda Cornie, County Clerk
by L Hayden Deputy

AFTER RECORDING, RETURN TO:

Stoel Rives LLP
900 SW Fifth Avenue, Suite 2600
Portland, OR 97204
Attn: Karen E. Jones

(Space above this line for recorder's use only)

NOISE EASEMENT AGREEMENT

This **NOISE EASEMENT AGREEMENT** (this "**Agreement**") is made and entered into as of May 22, 2006 (the "**Effective Date**"), by and between **VERNON C. MELZER** and **VIRGINIA D. MELZER** (whether one or more, "**Grantor**"), and **KLONDIKE WIND POWER III LLC**, an Oregon limited liability company, its successors and assigns ("**Grantee**"), with reference to the following recitals. Grantor and Grantee may hereafter be referred to as, together, the "**Parties**" and each, a "**Party**".

RECITALS

A. Grantee is a wind farm developer that desires to develop, construct and operate a renewable wind power project consisting of wind-powered turbines and generators capable of producing electricity and associated appurtenances, equipment, facilities and roadways that will produce and transmit electrical energy, including without limitation related power lines, and other equipment and facilities used or useful in connection with the production and transmission of electrical energy (the "**Wind Project**") on lands located in the County of Sherman, State of Oregon that are described in Grantee's Application for Site Certificate to the Oregon Energy Facility Siting Council, as deemed complete by the Oregon Department of Energy on February 6, 2006 (the "**Wind Project Property**").

B. Grantor is the owner of that certain property located in Sherman County, Oregon, more particularly described on **Exhibit A** attached hereto and made a part hereof (the "**Property**"), some of which Property is or will be a part of the Wind Project Property.

C. Grantor has been advised and is of the opinion that construction, operation, and maintenance of the Wind Project (collectively, "**Wind Project Operations**") on the Wind Project Property may subject the Property to noise influence that may exceed noise level standards established by the Oregon Department of Environmental Quality ("**DEQ**") for new industrial or commercial noise sources (hereinafter, the "**DEQ New Noise Source Standards**"); that these present and future noise influences might be annoying to users of the Property for its stated purpose and might interfere with the

unrestricted use and enjoyment of the Property in its intended use; that these noise influences might change over time by virtue of construction activities, maintenance, seasonal wind variations, and time-of-day wind variations; that changes in Wind Project Operations could result in increased noise influences; and that Grantor's or the user's own personal perceptions of the noise exposure could change and that Grantor's sensitivity to Wind Project noise could increase.

D. Grantee wishes to obtain from Grantor, on the terms stated below, a perpetual, nonexclusive easement to allow the Wind Project and the Wind Project Operations to increase the ambient statistical noise levels L10 and L50 by more than 10 dBA at the appropriate measurement point (but not above limits specified in Table 8 of OAR Chapter 340, Division 035 (2005)). Grantor is willing to grant Grantee the easement on the terms and provisions set forth herein.

AGREEMENT

NOW, THEREFORE, in accordance with Oregon Administrative Rule ("OAR") 340-035-0035(1)(b)(B)(iii), Grantor conveys to the Grantee, a perpetual nonexclusive easement and waiver as follows:

1. **Grant of Easement; Term**. For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by Grantor, Grantor hereby conveys and grants to Grantee a nonexclusive easement to allow the Wind Project and the Wind Project Operations to increase the ambient statistical noise levels L10 and L50 by more than 10 dBA at the appropriate measurement point (but not above limits specified in Table 8 of OAR Chapter 340, Division 035 (2005)) ("**Permitted Noise Levels**") for the benefit of the Wind Project Property, including the Property (the "**Noise Easement**"). The Noise Easement shall be and remain in effect until the earlier to occur of (i) the date on which all operations of the Wind Project are permanently discontinued or (ii) the date on which Grantee's leasehold interest in the Property (as the same is renewed or extended) permanently terminates.

2. **Waiver**. Grantor, for and on behalf of itself, its successors and assigns, waives and releases any right, claim, or cause of action which Grantor has now, or which Grantor may have in the future, against, and covenants not to sue, Grantee and/or its past, present, and future officers, officials, directors, employees, agents, sublessees, successors and assigns, as a direct or indirect result of the Permitted Noise Levels on the Property that may be caused by the Wind Project or the Wind Project Operations.

3. **Governing Law**. This Agreement shall be governed by the laws of the State of Oregon.

4. **Authority**. The signatories hereto warrant that they have the authority to execute this Agreement on behalf of Grantor and Grantee, as the case may be, and that any entity on whose behalf they are signing has executed this Agreement pursuant to its governing documents or a resolution of those having the power to control its affairs of this nature.

5. **Successors and Assigns.** The Noise Easement shall be appurtenant to Grantee's rights and interests in the Property (including any after-acquired rights, title or interests of Grantee therein) , and shall run with the land as to the Property. This Agreement shall inure to the benefit of and be binding on the heirs, successors, assigns and personal representatives of the Parties hereto. Grantee shall have the right without Grantor's consent to sell, convey, lease, or assign all or any portion of its interest under this Agreement and/or the Noise Easement to one or more persons or entities.

6. **Continuing Nature**. Grantor, for and on behalf of itself, its successors and assigns, further acknowledges that this Agreement contemplates and includes all existing and future Wind Project

Operations on the Wind Project Property, so long as the operations are conducted in compliance with the requirements of applicable laws and regulations and the terms and conditions of the Wind Site Lease Agreement between the Parties.

7. **Further Acts and Assurances**. Each Party hereby agrees that each shall execute such additional documents or instruments, and shall undertake such actions as are necessary and appropriate to effectuate the intent of this Agreement.

8. **Severability**. Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be valid, binding and enforceable under applicable law, but if any provision of this Agreement is held to be invalid, void (or voidable) or unenforceable under applicable law, such provision shall be ineffective only to the extent held to be invalid, void (or voidable) or unenforceable, without affecting the remainder of such provision or the remaining provisions of this Agreement.

9. **Attorneys' Fees**. In the event suit, arbitration or action is instituted to interpret or enforce the terms of this Agreement or to rescind this Agreement, the prevailing party shall be entitled to recover from the other party such sum as the court may adjudge reasonable as attorneys' fees at trial, on any appeal, and on any petition for review, in addition to all other sums provided by law.

10. **Counterparts**. This Agreement may be executed in counterparts, each of which shall be deemed an original and all of which when taken together shall constitute one and the same document.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first set forth above.

GRANTOR:

Vernon C. Melzer
VERNON C. MELZER

Virginia D. Melzer
VIRGINIA D. MELZER

GRANTEE:

KLONDIKE WIND POWER III LLC,
an Oregon limited liability company

By: Jean Wilson
Name: Jean Wilson
Title: Vice President Business Development

STATE OF OREGON)
)ss.
COUNTY OF Sherman)

This instrument was acknowledged before me on this 1st day of May, 2006, by Vernon C. Melzer.

D Hayden
Notary Public for Oregon
My commission expires: 8-29-2009

OFFICIAL SEAL
D HAYDEN
NOTARY PUBLIC-OREGON
COMMISSION NO. 395697
MY COMMISSION EXPIRES AUG. 29, 2009

STATE OF OREGON)
)ss.
COUNTY OF Sherman)

This instrument was acknowledged before me on this 1st day of May, 2006, by Virginia D. Melzer.

D Hayden
Notary Public for Oregon
My commission expires: 8-29-2009

OFFICIAL SEAL
D HAYDEN
NOTARY PUBLIC-OREGON
COMMISSION NO. 395697
MY COMMISSION EXPIRES AUG. 29, 2009

STATE OF OREGON)
)ss.
COUNTY OF MULTNOMAH)

This instrument was acknowledged before me on this 22 day of May, 2006, by Joan Wilson of Klondike Wind Power III LLC, an Oregon limited liability company, on behalf of such limited liability company.

Carrie A Tracy
Notary Public for Oregon
My commission expires: 12/12/09

OFFICIAL SEAL
CARRIE A. TRACY
NOTARY PUBLIC-OREGON
COMMISSION NO. 387604
MY COMMISSION EXPIRES DECEMBER 12, 2008

Exhibit A

Description of the Property

Real property situated in the County of Sherman, State of Oregon, hereby described as follows:

Parcel 1:

The South half of Section 4 and North half of Section 9, Township 1 North, Range 18 East of the Willamette Meridian, Sherman County, Oregon;

EXCEPTING THEREFROM any and all roads.

Parcel 2:

The North half of Section 11; the Southeast quarter of Section 2; the Southwest quarter, the South half of the Northwest quarter and Lots 3 and 4 of Section 1; Township 1 North, Range 18 East of the Willamette Meridian; EXCEPTING two acres in the Southeast corner of the Northeast quarter of Section 11;

ALSO EXCEPTING THEREFROM any and all roads.

Exhibit A

Form of Noise Easement Agreement

AFTER RECORDING, RETURN TO:

Stoel Rives LLP
900 SW Fifth Avenue, Suite 2600
Portland, OR 97204
Attn: Karen E. Jones

(Space above this line for recorder's use only)

NOISE EASEMENT AGREEMENT

This **NOISE EASEMENT AGREEMENT** (this "**Agreement**") is made and entered into as of July 6, 2006 (the "**Effective Date**"), by and between **JAMES E. MEDLER** and **DEAN W. MEDLER**, as tenants in common (collectively, "**Grantor**"), and **KLONDIKE WIND POWER III LLC**, an Oregon limited liability company, its successors and assigns ("**Grantee**"), with reference to the following recitals. Grantor and Grantee may hereafter be referred to as, together, the "**Parties**" and each, a "**Party**".

RECITALS

A. Grantee is a wind farm developer that desires to develop, construct and operate a renewable wind power project consisting of wind-powered turbines and generators capable of producing electricity and associated appurtenances, equipment, facilities and roadways that will produce and transmit electrical energy, including without limitation related power lines, and other equipment and facilities used or useful in connection with the production and transmission of electrical energy (the "**Wind Project**") on lands located in the County of Sherman, State of Oregon that are described in Grantee's Application for Site Certificate to the Oregon Energy Facility Siting Council, as deemed complete by the Oregon Department of Energy on February 6, 2006 (the "**Wind Project Property**").

B. Grantor is the owner of that certain property located in Sherman County, Oregon, more particularly described on **Exhibit A** attached hereto and made a part hereof (the "**Property**"), some or all of which Property is a part of the Wind Project Property.

C. Grantor has been advised and is of the opinion that construction, operation, and maintenance of the Wind Project (collectively, "**Wind Project Operations**") on the Wind Project

Property may subject the Property to noise influence that may exceed noise level standards established by the Oregon Department of Environmental Quality ("**DEQ**") for new industrial or commercial noise sources (hereinafter, the "**DEQ New Noise Source Standards**"); that these present and future noise influences might be annoying to users of the Property for its stated purpose and might interfere with the unrestricted use and enjoyment of the Property in its intended use; that these noise influences might change over time by virtue of construction activities, maintenance, seasonal wind variations, and time-of-day wind variations; that changes in Wind Project Operations could result in increased noise influences; and that Grantor's or the user's own personal perceptions of the noise exposure could change and that Grantor's sensitivity to Wind Project noise could increase.

D. Grantee wishes to obtain from Grantor, on the terms stated below, a nonexclusive easement to allow the Wind Project and the Wind Project Operations to increase the ambient statistical noise levels L10 and L50 by more than 10 dBA at the appropriate measurement point (but not above limits specified in Table 8 of OAR Chapter 340, Division 035 (2005)). Grantor is willing to grant Grantee the easement on the terms and provisions set forth herein.

AGREEMENT

NOW, THEREFORE, in accordance with Oregon Administrative Rule ("OAR") 340-035-0035(1)(b)(B)(iii), Grantor conveys to the Grantee, a nonexclusive easement and waiver as follows:

1. **Grant of Easement; Term**. For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by Grantor, Grantor hereby conveys and grants to Grantee a nonexclusive easement to allow the Wind Project and the Wind Project Operations to increase the ambient statistical noise levels L10 and L50 by more than 10 dBA at the appropriate measurement point (but not above limits specified in Table 8 of OAR Chapter 340, Division 035 (2005)) ("**Permitted Noise Levels**") for the benefit of the Wind Project Property, including the Property (the "**Noise Easement**"). The Noise Easement shall be and remain in effect until the earlier to occur of (i) the date on which all operations of the Wind Project are permanently discontinued or (ii) the date on which Grantee's leasehold interest in the Property (as the same is renewed or extended by Grantee) permanently terminates.

2. **Waiver**. Grantor, for and on behalf of itself, its successors and assigns, waives and releases any right, claim, or cause of action which Grantor has now, or which Grantor may have in the future, against, and covenants not to sue, Grantee and/or its past, present, and future officers, officials, directors, employees, agents, sublessees, successors and assigns, as a direct or indirect result of the Permitted Noise Levels on the Property that may be caused by the Wind Project or the Wind Project Operations.

3. **Governing Law**. This Agreement shall be governed by the laws of the State of Oregon.

4. **Authority**. The signatories hereto warrant that they have the authority to execute this Agreement on behalf of Grantor and Grantee, as the case may be, and that any entity on whose behalf they are signing has executed this Agreement pursuant to its governing documents or a resolution of those having the power to control its affairs of this nature.

5. **Successors and Assigns.** The Noise Easement shall be appurtenant to Grantee's rights and interests in the Property, and shall run with the land as to the Property. This Agreement shall inure to the benefit of and be binding on the heirs, successors, assigns and personal representatives of the Parties hereto. Grantee shall have the right without Grantor's consent to sell, convey, lease, or assign all or any portion of its interest under this Agreement to one or more persons or entities.

6. **Continuing Nature**. Grantor, for and on behalf of itself, its successors and assigns, further acknowledges that this Agreement contemplates and includes all existing and future Wind Project Operations on the Wind Project Property, so long as the operations are conducted in compliance with the requirements of applicable laws and regulations and the terms and conditions of the Wind Site Lease Agreement between the Parties.

7. **Further Acts and Assurances**. Each Party hereby agrees that each shall execute such additional documents or instruments, and shall undertake such actions as are necessary and appropriate to effectuate the intent of this Agreement.

8. **Severability**. Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be valid, binding and enforceable under applicable law, but if any provision of this Agreement is held to be invalid, void (or voidable) or unenforceable under applicable law, such provision shall be ineffective only to the extent held to be invalid, void (or voidable) or unenforceable, without affecting the remainder of such provision or the remaining provisions of this Agreement.

9. **Attorneys' Fees**. In the event suit, arbitration or action is instituted to interpret or enforce the terms of this Agreement or to rescind this Agreement, the prevailing party shall be entitled to recover from the other party such sum as the court may adjudge reasonable as attorneys' fees at trial, on any appeal, and on any petition for review, in addition to all other sums provided by law.

10. **Counterparts**. This Agreement may be executed in counterparts, each of which shall be deemed an original and all of which when taken together shall constitute one and the same document.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first set forth above.

GRANTOR:

OFFICIAL SEAL
RITA J CORREY
NOTARY PUBLIC-OREGON
COMMISSION NO. 371365
MY COMMISSION EXPIRES SEP 12, 2007

JAMES E. MEDLER

DEAN W. MEDLER

GRANTEE:

KLONDIKE WIND POWER III LLC,
an Oregon limited liability company

By: _____
Name: Allan Query
Title: Vice President

6. **Continuing Nature**. Grantor, for and on behalf of itself, its successors and assigns, further acknowledges that this Agreement contemplates and includes all existing and future Wind Project Operations on the Wind Project Property, so long as the operations are conducted in compliance with the requirements of applicable laws and regulations and the terms and conditions of the Wind Site Lease Agreement between the Parties.

7. **Further Acts and Assurances**. Each Party hereby agrees that each shall execute such additional documents or instruments, and shall undertake such actions as are necessary and appropriate to effectuate the intent of this Agreement.

8. **Severability**. Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be valid, binding and enforceable under applicable law, but if any provision of this Agreement is held to be invalid, void (or voidable) or unenforceable under applicable law, such provision shall be ineffective only to the extent held to be invalid, void (or voidable) or unenforceable, without affecting the remainder of such provision or the remaining provisions of this Agreement.

9. **Attorneys' Fees**. In the event suit, arbitration or action is instituted to interpret or enforce the terms of this Agreement or to rescind this Agreement, the prevailing party shall be entitled to recover from the other party such sum as the court may adjudge reasonable as attorneys' fees at trial, on any appeal, and on any petition for review, in addition to all other sums provided by law.

10. **Counterparts**. This Agreement may be executed in counterparts, each of which shall be deemed an original and all of which when taken together shall constitute one and the same document.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first set forth above.

GRANTOR:

JAMES E. MEDLER

DEAN W. MEDLER

GRANTEE:

KLONDIKE WIND POWER III LLC,
an Oregon limited liability company

By: Allan Query
Name: Allan Query
Title: Vice President

Ex. A - Noise Agreement

STATE OF OREGON)
)ss.
COUNTY OF Multnomah)

This instrument was acknowledged before me on this 28th day of April, 2006, by JAMES E. MEDLER.

Notary Public for Oregon
My commission expires: 9/12/07

OFFICIAL SEAL
RITA J CORREY
NOTARY PUBLIC-OREGON
COMMISSION NO. 371365
MY COMMISSION EXPIRES SEP. 12, 2007

STATE OF OREGON)
)ss.
COUNTY OF _____)

This instrument was acknowledged before me on this _____ day of _____, 2006, by DEAN W. MEDLER.

Notary Public for Oregon
My commission expires:

STATE OF OREGON)
)ss.
COUNTY OF MULTNOMAH)

This instrument was acknowledged before me on this 6 day of July, 2006, by Allan Query, VP of KLONDIKE WIND POWER III LLC, an Oregon limited liability company, on behalf of such limited liability company.

Notary Public for Oregon
My commission expires: 12/12/08

OFFICIAL SEAL
CARRIE A. TRACY
NOTARY PUBLIC-OREGON
COMMISSION NO. 387604
MY COMMISSION EXPIRES DECEMBER 12, 2008

STATE OF OREGON)
)ss.
COUNTY OF _____)

This instrument was acknowledged before me on this _____ day of _____, 2006, by JAMES E. MEDLER.

Notary Public for Oregon
My commission expires:

STATE OF ~~OREGON~~ Idaho.)
)ss.
COUNTY OF Payette)

This instrument was acknowledged before me on this 10 day of May, 2006, by DEAN W. MEDLER.

Notary Public for ~~Oregon~~ Idaho.
My commission expires: 2/22/2011

MICHAEL GARNER NOTARY PUBLIC STATE OF IDAHO

STATE OF OREGON)
)ss.
COUNTY OF MULTNOMAH)

This instrument was acknowledged before me on this _____ day of _____, 2006, by _____ of KLONDIKE WIND POWER III LLC, an Oregon limited liability company, on behalf of such limited liability company.

Notary Public for Oregon
My commission expires:

EXHIBIT A

Description of Property

All that real property located in Sherman County, Oregon, described as follows:

The Southeast Quarter (SE ¼) of Section 28, the Northwest Quarter (NW ¼) of Section 33, and the South Half (S ½) of Section 35, Township 2 North, Range 18 East of the Willamette Meridian, Sherman County, Oregon, and

Lots 1 and 2, and the South Half of the Northeast Quarter (S ½ of the NE ¼) of Section 2, Township 1 North, Range 18 East of the Willamette Meridian, Sherman County, Oregon.

AFTER RECORDING, RETURN TO:

Stoel Rives LLP
900 SW Fifth Avenue, Suite 2600
Portland, OR 97204
Attn: Karen E. Jones

(Space above this line for recorder's use only)

NOISE EASEMENT AGREEMENT

This **NOISE EASEMENT AGREEMENT** (this "**Agreement**") is made and entered into as of 4-12-06, 2006 (the "**Effective Date**"), by and between **LORAN ROLAND SIMANTEL** and **SHARON LEE SIMANTEL** (whether one or more, "**Grantor**"), and **KLONDIKE WIND POWER III LLC**, an Oregon limited liability company, its successors and assigns ("**Grantee**"), with reference to the following recitals. Grantor and Grantee may hereafter be referred to as, together, the "**Parties**" and each, a "**Party**".

RECITALS

A. Grantee is a wind farm developer that desires to develop, construct and operate a renewable wind power project consisting of wind-powered turbines and generators capable of producing electricity and associated appurtenances, equipment, facilities and roadways that will produce and transmit electrical energy, including without limitation related power lines, and other equipment and facilities used or useful in connection with the production and transmission of electrical energy (the "**Wind Project**") on lands located in the County of Sherman, State of Oregon that are described in Grantee's Application for Site Certificate to the Oregon Energy Facility Siting Council, as deemed complete by the Oregon Department of Energy on February 6, 2006 (the "**Wind Project Property**").

B. Grantor is the owner of that certain property located in Sherman County, Oregon, more particularly described on **Exhibit A** attached hereto and made a part hereof (the "**Property**"), some or all of which Property is a part of the Wind Project Property.

C. Grantor has been advised and is of the opinion that construction, operation, and maintenance of the Wind Project (collectively, "**Wind Project Operations**") on the Wind Project Property may subject the Property to noise influence that may exceed noise level standards established by the Oregon Department of Environmental Quality ("**DEQ**") for new industrial or commercial noise sources (hereinafter, the "**DEQ New Noise Source Standards**"); that these present and future noise influences might be annoying to users of the Property for its stated purpose and might interfere with the unrestricted use and enjoyment of the Property in its intended use; that these noise influences might

change over time by virtue of construction activities, maintenance, seasonal wind variations, and time-of-day wind variations; that changes in Wind Project Operations could result in increased noise influences; and that Grantor's or the user's own personal perceptions of the noise exposure could change and that Grantor's sensitivity to Wind Project noise could increase.

D. Grantee wishes to obtain from Grantor, on the terms stated below, a nonexclusive easement to allow the Wind Project and the Wind Project Operations to increase the ambient statistical noise levels L10 and L50 by more than 10 dBA at the appropriate measurement point (but not above limits specified in Table 8 of OAR Chapter 340, Division 035 (2005)). Grantor is willing to grant Grantee the easement on the terms and provisions set forth herein.

AGREEMENT

NOW, THEREFORE, in accordance with Oregon Administrative Rule ("OAR") 340-035-0035(1)(b)(B)(iii), Grantor conveys to the Grantee, a nonexclusive easement and waiver as follows:

1. **Grant of Easement; Term**. For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by Grantor, Grantor hereby conveys and grants to Grantee a nonexclusive easement to allow the Wind Project and the Wind Project Operations to increase the ambient statistical noise levels L10 and L50 by more than 10 dBA at the appropriate measurement point (but not above limits specified in Table 8 of OAR Chapter 340, Division 035 (2005)) ("**Permitted Noise Levels**") for the benefit of the Wind Project Property, including the Property (the "**Noise Easement**"). The Noise Easement shall be and remain in effect until the earlier to occur of (i) the date on which all operations of the Wind Project are permanently discontinued or (ii) the date on which Grantee's leasehold interest in the Property (as the same is renewed or extended by Grantee) permanently terminates.

2. **Waiver**. Grantor, for and on behalf of itself, its successors and assigns, waives and releases any right, claim, or cause of action which Grantor has now, or which Grantor may have in the future, against, and covenants not to sue, Grantee and/or its past, present, and future officers, officials, directors, employees, agents, sublessees, successors and assigns, as a direct or indirect result of the Permitted Noise Levels on the Property that may be caused by the Wind Project or the Wind Project Operations.

3. **Governing Law**. This Agreement shall be governed by the laws of the State of Oregon.

4. **Authority**. The signatories hereto warrant that they have the authority to execute this Agreement on behalf of Grantor and Grantee, as the case may be, and that any entity on whose behalf they are signing has executed this Agreement pursuant to its governing documents or a resolution of those having the power to control its affairs of this nature.

5. **Successors and Assigns**. The Noise Easement shall be appurtenant to Grantee's rights and interests in the Property, and shall run with the land as to the Property. This Agreement shall inure to the benefit of and be binding on the heirs, successors, assigns and personal representatives of the Parties hereto. Grantee shall have the right without Grantor's consent to sell, convey, lease, or assign all or any portion of its interest under this Agreement to one or more persons or entities.

6. **Continuing Nature**. Grantor, for and on behalf of itself, its successors and assigns, further acknowledges that this Agreement contemplates and includes all existing and future Wind Project Operations on the Wind Project Property, so long as the operations are conducted in compliance with the requirements of applicable laws and regulations and the terms and conditions of the Wind Site Lease Agreement between the Parties.

7. **Further Acts and Assurances**. Each Party hereby agrees that each shall execute such additional documents or instruments, and shall undertake such actions as are necessary and appropriate to effectuate the intent of this Agreement.

8. **Severability**. Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be valid, binding and enforceable under applicable law, but if any provision of this Agreement is held to be invalid, void (or voidable) or unenforceable under applicable law, such provision shall be ineffective only to the extent held to be invalid, void (or voidable) or unenforceable, without affecting the remainder of such provision or the remaining provisions of this Agreement.

9. **Attorneys' Fees**. In the event suit, arbitration or action is instituted to interpret or enforce the terms of this Agreement or to rescind this Agreement, the prevailing party shall be entitled to recover from the other party such sum as the court may adjudge reasonable as attorneys' fees at trial, on any appeal, and on any petition for review, in addition to all other sums provided by law.

10. **Counterparts**. This Agreement may be executed in counterparts, each of which shall be deemed an original and all of which when taken together shall constitute one and the same document.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first set forth above.

GRANTOR:

LORAN ROLAND SIMANTEL

SHARON LEE SIMANTEL

GRANTEE:

KLONDIKE WIND POWER III LLC,
an Oregon limited liability company

By: _____
Name: Jean Wilson
Title: Vice President Business Development

STATE OF OREGON)
)ss.
COUNTY OF Oregon, Wasco)

This instrument was acknowledged before me on this 12 day of April, 2006, by Loran Roland Simantel.

Lacy B Metzentine
Notary Public for Oregon
My commission expires: July 27, 2009

OFFICIAL SEAL
LACY B METZENTINE
NOTARY PUBLIC-OREGON
COMMISSION NO. 395410
MY COMMISSION EXPIRES JULY 27, 2009

STATE OF OREGON)
)ss.
COUNTY OF Oregon, Wasco)

This instrument was acknowledged before me on this 12 day of April, 2006, by Sharon Lee Simantel.

Lacy B Metzentine
Notary Public for Oregon
My commission expires: July 27, 2009

OFFICIAL SEAL
LACY B METZENTINE
NOTARY PUBLIC-OREGON
COMMISSION NO. 395410
MY COMMISSION EXPIRES JULY 27, 2009

STATE OF OREGON)
)ss.
COUNTY OF MULTNOMAH)

This instrument was acknowledged before me on this 1 day of May, 2006, by Jean Wilson of Klondike Wind Power III LLC, an Oregon limited liability company, on behalf of such limited liability company.

Carrie A Tracy
Notary Public for Oregon
My commission expires: 12/12/08

OFFICIAL SEAL
CARRIE A. TRACY
NOTARY PUBLIC-OREGON
COMMISSION NO. 387604
MY COMMISSION EXPIRES DECEMBER 12, 2008

Exhibit A

Description of the Property

Real property situated in the County of Sherman, State of Oregon, hereby described as follows:

Parcel 1: (1N-18 200)

The Southeast Quarter of Section 1 and the North Half of Section 12, all in Township 1 North, Range 18 East of the Willamette Meridian, in the County of Sherman, State of Oregon;

EXCEPTING THEREFROM that portion conveyed to Sherman County in deed recorded August 19, 1933 in Book X, page 98, Sherman County Deed Records;

ALSO EXCEPTING THEREFROM any and all roads.

Parcel 2: (1N-18E- 2400 & 2500)

The South Half of Section 12 and the Southeast Quarter of Section 11, Township 1 North, Range 18 East of the Willamette Meridian, in the County of Sherman and State of Oregon;

EXCEPTING THEREFROM that portion conveyed to Sherman County by deed recorded December 1, 1981 in Book 45, page 990 Sherman County Deed Records;

ALSO EXCEPTING THEREFROM any and all roads.

Parcel 3: (1N-18E 2700)

The Northwest Quarter, the Northwest Quarter of the Northeast Quarter and the West Half of the Northeast Quarter of the Northeast Quarter of Section 13; and the North Half of Section 14, all in Township 1 North, Range 18 East of the Willamette Meridian, in Sherman County, State of Oregon;

EXCEPTING THEREFROM that portion conveyed to Sherman County by deed recorded December 1, 1981 in Book 45, Page 990, Sherman County Deed Record;

ALSO EXCEPTING THEREFROM any and all roads.

Parcel 4: (IN-18E 2800)

The South Half and the South Half of the Northeast Quarter of Section 13; the South Half of Section 14; the North Half and the North Half of the Southeast Quarter of Section 23; the West Half and the Northwest Quarter of the Northeast Quarter of Section 24, Township 1 North, Range 18 East of the Willamette Meridian, Sherman County, State of Oregon;

EXCEPTING THEREFROM that portion conveyed to Sherman County by deed recorded December 1, 1981 in Book 45, Page 990, Sherman County Deed Records;

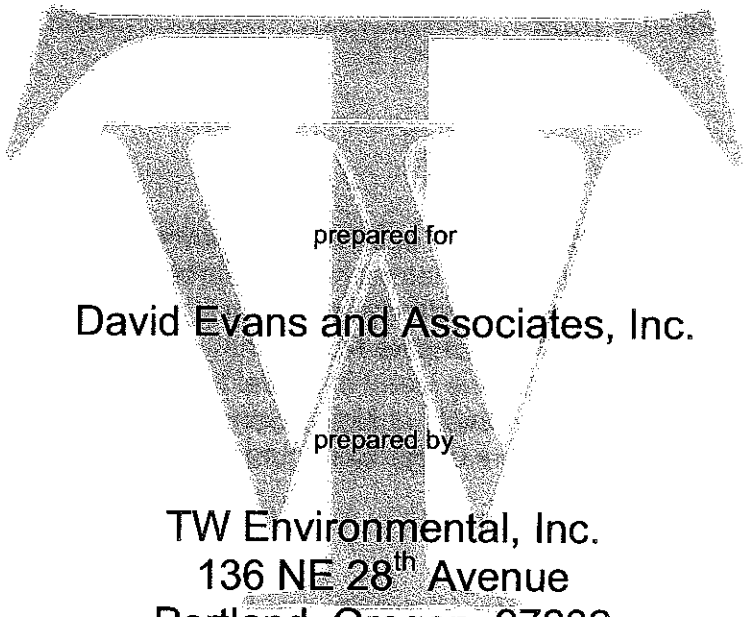
ALSO EXCEPTING THEREFROM any and all roads.

APPENDIX X-2

TW Environmental, Inc.

Noise Analysis Report for the Amended Klondike III Wind Project

Noise Analysis Report
for the
Amended Klondike III Wind Project



prepared for

David Evans and Associates, Inc.

prepared by

TW Environmental, Inc.
136 NE 28th Avenue
Portland, Oregon 97232

July 2006

Contents

Tables

Appendices

1.0 Introduction

The Klondike III Wind Project is located in rural, northeast Sherman County, Oregon, approximately seven miles east of the town of Wasco. It is located one mile west of the John Day River at its closest point, approximately five miles south of the Columbia River, and twelve miles east of the Deschutes River. Agriculture, particularly dry land wheat, is the predominant land use and there are very few residential dwellings and agriculture related structures in the vicinity of the project area.

Up to 165 new wind turbines are planned for installation in the Klondike III Wind Project area. The purpose of this document is to describe the potential noise impacts associated with the project under various wind tower specification and configuration options.

A noise analysis report for the project was originally prepared in March 2005, and it was submitted to the Energy Facility Siting Council (EFSC). The information contained in this report describes the noise analyses for turbine configurations that were developed subsequent to the March 2005 noise analysis report. This analysis includes two modifications to turbine locations, and the use of turbines in some locations with sound power levels of 107 dBA (and in one case, 110 dBA) compared to the turbines modeled in the original March 2005 analysis with sound power levels of106 dBA.

The project turbine configurations presented in this report are as follows:

1. **Configuration 1**

   A 900-foot wide corridor was identified for each string of turbines. Any turbine in a string could be located within 450 feet perpendicular to the base turbine string location in either direction. This analysis represents the worst-case turbine location condition for Receivers 1 through 7 (R1 through R7).

   In addition to modeling the worst-case turbine locations, forty-nine (49) of the wind turbines with sound power levels of 106 dBA were replaced with forty-five (45) wind turbines with sound power levels of 107 dBA. The location of these changes is such that only noise levels for R6 and R7 would be affected by this modification.

   Figure A-1 in Appendix A presents a map showing the revised base turbine string locations. The turbines represented by blue dots are turbines with sound power levels of 106 dBA, and the turbines represented by pink dots are the turbines with sound power levels of 107 dBA.

2. Configuration 2

Under Configuration 2, adjustments to the location of some turbines near R4 and R5 were evaluated. See Appendix B for the location of R4 and R5. Specifically, turbine string Wpt 58 through Wpt 71 was replaced with turbine string J-01 through J-13 (Figure A-2 in Appendix A presents a map showing the revised base turbine string locations).

Three different scenarios were examined under Configuration 2 to determine the sound levels at R5 with the new configuration. The scenarios are summarized as follows:

> **Configuration 2A:** Turbines F-05 through F-08 were modeled at a location 450 feet towards R5 from their centerline coordinates, and the new turbine locations for J-01 through J-13 were modeled with no shift applied (at the center of the 900 foot corridor).
>
> **Configuration 2B:** Turbines F-05 through F-08 were modeled at a location 450 feet towards R5 from their centerline coordinates; the new turbine locations for J-02 through J-13 were modeled with no shift applied (at the center of the 900 foot corridor); and turbine J-01 was removed from the analysis.
>
> **Configuration 2C:** Turbines F-05 through F-08 and the new turbine locations for J-02 through J-13 were modeled with no shift applied for any turbines (at the center of the 900 foot corridor), and turbine J-01 was removed from the analysis.

3. Configuration 3

Under Configuration 3, the turbine configuration and sound power levels are the same as under Configuration 1, except that one turbine (K-02) has a sound power level of 110 dBA. Figure A-2 in Appendix A presents a map showing the location of turbine K-02. The location of the modified turbine K-02 is such that only noise levels at R7 would potentially be affected.

2.0 Existing Conditions

Chapter 340, Division 35 of the Oregon Administrative Rules (OAR 340-035-0035) specifies use of an assumed background L_{50} ambient noise level of 26 dBA or the actual measured ambient background level. For this project, the assumed background level of 26 dBA was used as baseline to represent existing noise conditions.

The project area is rural in nature and existing noise levels can be expected to be low with infrequent noise from agricultural activities.

3.0 Methods

3.1 NOISE BACKGROUND INFORMATION

Noise is generally defined as unwanted sound and is measured in terms of sound pressure level. It is expressed in decibels (dB), which are defined as 10 log P^2/ P^2_{ref}. P is the root-mean-square sound pressure, and P_{ref} is the reference root-mean-square sound pressure of 2×10^{-5} Newtons per square meter (N/m2).

The number of fluctuation cycles or pressure waves per second of a particular sound constitutes the frequency of the sound. The human ear is less sensitive to higher and lower frequencies than to mid-range frequencies. Therefore, sound level meters that measure environmental noise generally incorporate a filtering system that discriminates against higher and lower frequencies in a manner similar to the human ear. This produces noise measurements that approximate the normal human perception of noise. Measurements made using this filtering system are "A-weighted" and are specified as "dBA" readings. The A-weighting is used in most environmental ordinances and standards. Both A-weighted and linear (un-weighted) units are used in this report.

Noise levels decrease with distance from a noise source. The average noise level from a line source such as a road will decrease by 3 dBA for every doubling of distance (3 dB/DD) because of geometric divergence with distance alone. The average noise level from a point source such as a wind turbine will decrease by 6 dBA for every doubling of distance (6dB/DD) due to geometric divergence. Additional noise reduction (attenuation) can be provided by vegetation and terrain effects that block or absorb noise.

A 10-dBA change in noise level is judged by most people to be approximately a two-fold change in loudness (e.g., an increase from 50 dBA to 60 dBA causes the loudness to double). The minimum change in sound levels that can be perceived by a person with normal hearing is generally 3 dBA. Sound levels produced by common noises are listed in Table 1.

Statistical noise level descriptors (L_{xx}) are used in this analysis to characterize the existing and future noise environments. The L_{xx} is a statistical noise level descriptor where the xx is a percentage of the measurement time, usually 1-hour. Oregon uses L_{xx} values to determine compliance with noise regulations and for management of wind tower noise. Public response to sound depends greatly on the characteristic variation in sound levels in a given environment. People will generally find a moderately high, constant sound level more tolerable than a quiet background level interrupted by frequent high-level noise intrusions. For example, steady traffic noise from a highway is normally less bothersome than

Table 1
Sound Levels of Common Sources and Noise Environments*

Thresholds/Noise Sources	Sound Level (dBA)	Subjective Evaluations	Possible Effects on Humans
Human threshold of pain Carrier jet takeoff (50 ft)	140	Deafening	Continuous exposure can cause hearing damage
Siren (100 ft) Jackhammer, power drill	130		
Loud rock band Auto horn (3 ft)	120		
Busy video arcade Baby crying	110		
Lawn mower (3 ft) Noisy motorcycle (50 ft)	100	Very loud	
Heavy truck at 40 mph (50 ft) Shouted conversation	90		
Kitchen garbage disposal (3 ft) Busy urban street, daytime	80	Loud	
Normal automobile at 65 mph (25 ft) Vacuum cleaner (3 ft)	70		Speech interference
Large air conditioning unit (20 ft) Normal conversation (3 ft)	60	Moderate	
Quiet residential area Light auto traffic (100 ft)	50		Sleep interference
Library Quiet home	40	Faint	
Soft whisper (15 ft)	30		
Broadcasting studio	20	Very faint	
Threshold of human hearing	0-10		

*Note that both subjective evaluations and physiological responses are continuous without true threshold boundaries. Consequently, there are overlaps among categories of response that depend on the sensitivity of the noise receivers.

occasional aircraft fly-overs in a relatively quiet area. In light of this subjective response, it is often useful to look at a statistical distribution of sound levels over a given time period. Such distributions identify the sound level exceeded and the percentage of time exceeded, and allow for a more thorough description of the range of sound levels during the given measurement period. Some common L_{xx} statistical descriptors, including two of those used in the Oregon regulations, and their definitions follow:

> L_{10}: The sound level exceeded 10 percent of the time. This is a measure of the louder sound levels during the measurement period. Example: During a 1-hour measurement, an L_{10} of 85 dBA means the sound level was at or above 85 dBA for 6 minutes.

L_{50}: The sound level exceeded 50 percent of the time. Example: During a 1-hour measurement, an L_{50} of 50 dBA means the sound level was at or above 50 dBA for 30 minutes.

3.2 REGULATIONS

Proposed wind energy facilities subject to the jurisdiction of the EFSC must be shown to comply with the Oregon Department of Environmental Quality's (DEQ) noise control regulations. DEQ regulations in OAR 340-035-0035 establish noise standards for the following three general categories: existing noise sources, new noise sources, and new noise sources located in quiet areas. The project area does not include any areas that would currently be considered quiet areas. The standards for existing and new sources are the same, but new sources on sites that have not previously been used for commercial or industrial purposes have an additional limit on the allowable increase over existing ambient noise levels. Sources on new sites may not increase the L_{10} or L_{50} statistical noise levels by more than 10 dBA over existing ambient levels. New wind energy facilities may not increase the L_{10} or L_{50} by more than 10 dBA unless the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located. Table 2 summarizes the noise standards. The standards apply at noise sensitive properties, which are defined in OAR 340-035-0015(38) as properties normally used for sleeping, or normally used as schools, churches, hospitals, or public libraries. Residences are the only noise sensitive properties identified in the Project area.

Table 2
Oregon DEQ Industrial and Commercial Noise Source Standards

Statistical Descriptor	Existing and New Noise Sources	
	7 am-10 pm	10 pm-7 am
L_{50}	55	50
L_{10}	60	55
L_{01}	75	60

Source: ODEQ 340-035-0035

Because wind turbines do not generate impulse noise, the impulse noise regulations specified in OAR 340-035-0035(1)(d) do not apply. Also, construction noise is exempt from the industrial noise limits in accordance with OAR 340-035-0035(5)(g).

In addition to the limits discussed above, OAR 340-035-0035(1)(f) establishes standards to regulate octave band sound pressure levels and audible discrete tones. Under DEQ's rules, when the Director of DEQ has reasonable cause to believe that the noise standards summarized in Table 2 do not adequately protect the health, safety, or welfare of the public as provided for in

ORS Chapter 467, the Department may require the noise source to meet the additional standards contained in OAR 340-035-0035(1)(f).

3.3 MEASUREMENT AND ASSESSMENT PROCEDURES

Noise measurements were not conducted for this analysis. Instead, a background L_{50} ambient noise level of 26 dBA was assumed in accordance with OAR 340-035-0035. As discussed previously, wind energy facilities must meet the DEQ noise impact criterion for noise levels generated from a wind energy facility at noise sensitive properties as summarized in Table 2, and with an increase of the L_{10} or L_{50} by no more than 10 dBA. This effectively allows for an L_{10} or L_{50} of no more than 36 dBA (26 dBA background + 10 dBA increase) at noise sensitive properties.

The project noise sources with the potential to cause noise impacts are:

Wind Turbines: OAR 340-035-0035(1)(B)(iii)(VI) requires the use of the turbine's maximum sound power level as determined following procedures established by the International Electrotechnical Commission (IEC) 61400-11 (version 2002-12) and assumes that all of the proposed wind facility's turbines are operating at the maximum sound power level. Maximum sound power levels measured in accordance with IEC 61400 would result in a mean maximum sound power level for each string of turbines.

EFSC staff have decided that instead of following OAR 340-035-0035(1)(B)(iii)(VI), they will require projects to estimate sound levels using the manufacturer's maximum warranted noise levels in lieu of the levels established by IEC 61400-11 procedures. All turbine sound power levels were therefore input into the model at the mean maximum sound power level reported by the manufacturer according to IEC 61400 plus the reported deviation. Mean maximum sound power levels reported by the turbine manufacturer in accordance with IEC 61400 were not used, and the resulting noise levels reported at each receiver are likely to be overstated as a result.

For this project, two different turbines having different sound properties were modeled. One turbine was modeled with a maximum sound power level of 106 dBA, and the other was modeled with a maximum sound power level of 107 dBA. These levels are shown in Table 3. Appendix D contains manufacturer's acoustic emission data for both turbines.

In one of the project configurations evaluated, one turbine was modified to have a maximum sound power level of 110 dBA. The distance between this turbine (K-02) and the nearest receptor (R7) is approximately 1.7 miles. Manufacturer's sound power data for the 107 dBA turbine were ratioed up to 110 dBA and were used to assess the potential for this turbine to affect noise levels at R7.

Table 3
Turbine Sound Power Levels Used in Model Input

Frequency	106 dBA Turbine		107 dBA Turbine	
	Manufacturer's Data (dBA)	Model Input[1] (dB)	Manufacturer's Data (dBA)	Model Input[1] (dB)
31.5	-	-	74.7	114.1
63	87.1	113.3	86.3	112.5
125	96.0	112.1	95.3	111.4
250	99.2	107.8	102.0	110.6
500	100.6	103.8	102.6	105.8
1000	99.9	99.9	99.0	99.0
2000	96.5	95.3	95.0	93.8
4000	89.3	88.3	90.2	89.2
8000	80.1	81.2	85.4	86.5
Overall dBA	106		107	

[1] Adjusted to linear levels from A-weighted levels.

The potential area of impact was determined by modeling the longest string of turbines (17 in a row) and calculating the perpendicular mid-point distance from the turbines such that the sound level is 36 dBA. This distance was determined to be 0.8 miles. Outside of this distance, the wind towers are predicted to have sound levels less than 36 dBA. A 0.8 mile contour around the lease boundary was examined for sensitive receivers. The lease boundary adds at least another 0.1 mile, resulting in a conservative approach.

Seven sound sensitive properties were identified within the potential area of impact and evaluated in greater detail. These properties are shown on Figure B-1 in Appendix B. To predict the noise levels from the wind turbines at the sensitive properties, the SPM 9613 Sound Propagation Model for Outdoor Noise Sources (Version 2.0) was used. The model is based on ISO Standards 9613 Parts 1 and 2, which specifically address outdoor propagation and attenuation of sound, and engineering methods for calculating environmental noise and abatement. Key assumptions used in the analysis are shown in Table 4 with references.

Transformers, discussed in the analysis previously submitted to EFSC were included in the analysis. Sound power levels for the transformers are shown in Table 5.

Table 4
Key Assumptions Used in the Klondike Noise Analysis

Parameter	Value	Reference
Temperature, Humidity	11°C, 60 % RH – normal temperature and relative humidity from 30+ year period of record, Pendleton Climate Data, National Climatic Data Center – this is the nearest station with relative humidity data	ISO 9613-2, Section 7.2 Atmospheric absorption, Note 9 – "For calculation of environmental noise levels, the atmospheric attenuation coefficient should be based on average values determined by the range of ambient weather which is relevant to the locality."
Ground Absorption Coefficient	G=1 for porous ground. Ground effects included for transformers and R7. Within a distance of 30 times the receiver or source height, the model assumption of linear ground elevation between the 2 ground points at the receiver and source is conservative. The model assumption is valid for soft ground. All land between transformers and R7 is farm land or vegetated. Mid-ground attenuation was not included.	ISO 9613-2, Section 7.3 Ground effects – "Porous ground, which includes ground covered by grass, trees, or other vegetation, and all other ground surfaces suitable for the growth of vegetation, such as farming land."
Topographic barriers	A barrier following the ground elevation for the topographical ridge near R7 was included in the analysis.	
Tower locations	Depending on the configuration being modeled, turbines were modeled at their original coordinates, or at the nearest point to receivers within the potential 900-foot corridor.	
Wind turbine sound power levels	As shown in Table 3.	See discussion in Wind Turbine section of report (Section 3.3).
Transformer sound power levels	As shown in Table 5. Octave band data were based on measurements made by TW Environmental at BPA's Ross Complex in Vancouver, WA.	Bolt, Beranek, and Newman Report 3305, *Characterization of Transformer Noise* (April 1977).

Table 5
Transformer Sound Power Levels Used in Model Input (dB)

Frequency	Model Input
63	73.3
125	96.2
250	96.6
500	101.4
1000	90.7
2000	82.9
4000	77.9
8000	75.8
Overall dB	103.8

Note: Sound power levels are for two transformers.

4.0 Results

Noise levels from the operation of the wind turbines and transformers were predicted by using the SPM 9613 Sound Propagation Model for Outdoor Noise Sources (Version 2.0).

Configuration 1

Table 6 summarizes estimated operations noise levels at noise-sensitive receivers for Configuration 1.

Table 6
Estimated Operations Noise Levels at Noise-Sensitive Receivers

Receiver ID	Estimated Noise Level (dBA)
R1	34.8
R2	35.5
R3	37.6
R4	43.2
R5	40.5
R6	44.2
R7	43.3

It should be noted that numerous towers contribute to overall sound levels at each of the receivers. Because the maximum manufacturer's warranted sound level was used for each turbine in the prediction model instead of the maximum levels from IEC procedures, it is likely that predicted sound levels are overestimated. Appendix C contains the output files of the SPM9613 model runs.

Table 6 shows that the estimated noise levels at all receivers are below the most restrictive DEQ standard of a nighttime L_{50} of 50 dBA. Five of the receivers are at or above the 36 dBA criteria (26 dBA background + 10 dBA allowable increase) when all towers are included: R3, R4, R5, R6, and R7. Table 7 summarizes the towers contributing to sound levels in excess of 36 dBA. The transformers at the east substation are predicted to contribute a sound level of 24.1 dBA at R7, which is below the assumed background ambient noise level of 26 dBA.

Table 7
Affected Receivers and Towers under Configuration 1

Receivers	Contributing Towers
R3	Wpt48 and 49
R4	Wpt58, 59, 60, 61, 62, 63, and 64
R5	Wpt58, 59 and 60
R6	S4, 5, 6, 7, 8, 9, 14, 15, 16, 17, 18, 34, 35, 36, and 42
R7	S8, 9, 10, 17, 18, 32, 34, 35, 36, 37, 38, 42, 43, 44, and 45

OAR 340-035-0035 (1)(b)(B)(iii)(III) states that the noise levels from a wind energy facility may increase the ambient statistical noise levels L_{10} and L_{50} by more than 10 dBA (but not above the limits in Table 2), if the person who owns the noise sensitive property executes a legally effective easement or real covenant that benefits the property on which the wind energy facility is located.

Noise easements have been obtained from all affected property owners, except for those represented by R5. Additional turbine configuration analysis was therefore conducted to evaluate measures needed to meet the maximum 10 dBA ambient L_{10} or L_{50} increase regulation at R5 (see results for Configuration 2).

Configuration 2

Three scenarios were examined to determine the sound level at R5 with the modified turbine configuration. These scenarios and their results are summarized as follows:

Configuration 2A: Turbines F-05 through F-08 were modeled at a location 450 feet towards R5 from their centerline coordinates, and the new turbine locations for J-01 through J-13 were modeled with no shift applied (at the center of the 900 foot corridor): **36 dBA.**

Configuration 2B: Turbines F-05 through F-08 were modeled at a location 450 feet towards R5 from their centerline coordinates; the new turbine locations for J-02 through J-13 were modeled with no shift applied (at the center of the 900 foot corridor); and turbine J-01 was removed from the analysis: **35 dBA.**

Configuration 2C: Turbines F-05 through F-08 and the new turbine locations for J-02 through J-13 were modeled with no shift applied for any turbines (at the center of the 900 foot corridor), and turbine J-01 was removed from the analysis: **35 dBA.**

The DEQ noise impact criteria allows for a level of no more than 36 dBA at noise sensitive properties. Therefore, an easement would not be needed for any of the above cases.

Configuration 3

Under Configuration 3, the effect of including one turbine (K-02) with a sound power level of 110 dBA was evaluated at R7. A simplified analysis was performed that concluded that at a distance of approximately 1.7 miles, increasing the sound power level of turbine K-02 from 106 dBA to 110 dBA would not increase overall noise levels at R7.

5.0 Mitigation

Noise levels are not projected to exceed DEQ noise impact criteria summarized in Table 2. However, noise levels at five properties were predicted to exceed the 10 dBA increase criteria under Configuration 1. Legally effective easements were obtained from four out of five of these affected properties waiving the requirement to meet the 10 dBA relative noise increase over existing levels.

Reconfiguration of the turbine strings in the vicinity of R5 (where an easement was not obtained) were analyzed and were shown to be effective in reducing the predicted ambient increase over existing noise levels to 36 dBA, thereby complying with the requirements in OAR 340-035.

Modifying turbine K-02 to have a sound power level of 110 dBA was not shown to have an effect on sound levels at any receiver.

No further mitigation is required.

6.0 References

Beranek, Leo L. 1988. *Noise and Vibration Control*

International Electrotechnical Commission (IEC) 61400-14 Ed. 1, *Wind Turbines – Part 14: Declaration of apparent sound power level and tonality values of wind turbines.*

Oregon Administrative Rules, Department of Environmental Quality, Chapter 340, Division 35 – Noise Control Regulations.

Oregon Climate Center. 2005. Zone 6 Climate Data Archives. Oregon State University.
Available on internet at: http://www.ocs.oregonstate.edu/index.html

Orr, E.L., W.N. Orr, and E.M. Baldwin. 1992. *Geology of Oregon, Fourth Edition.* Kendall/Hunt Publishing. Dubuque, Iowa.

Power Acoustics, Inc., *SPM9613 Users Manual V2.x.*

U.S. Environmental Protection Agency (EPA). 1971. *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances.*

Appendix A
Klondike III Wind Project Turbine Locations

Klondike III Wind Project

Figure A-1

Project Components

Medler Ln
N Klondike Rd
Emigrant Springs Rd
Dehler Rd
Beacon Rd
Klondike Ln
McDonald Ferry Ln
Sandon Rd
Gosson Ln
Smith Ln
Hwy 206
Spanish Hollow
Not Leased
Not Leased

s1 s2 s3 s4 s5 s6 s7 s8 s9 s10 s11 s12 s13 s14 s15 s16 s17 s18 s19 s20 s21 s22 s23 s24 s25 s26 s27 s28 s29 s30 s31 s32 s34 s35 s36 s37 s38 s39 s40 s41 s42 s43 s44 s45 s46

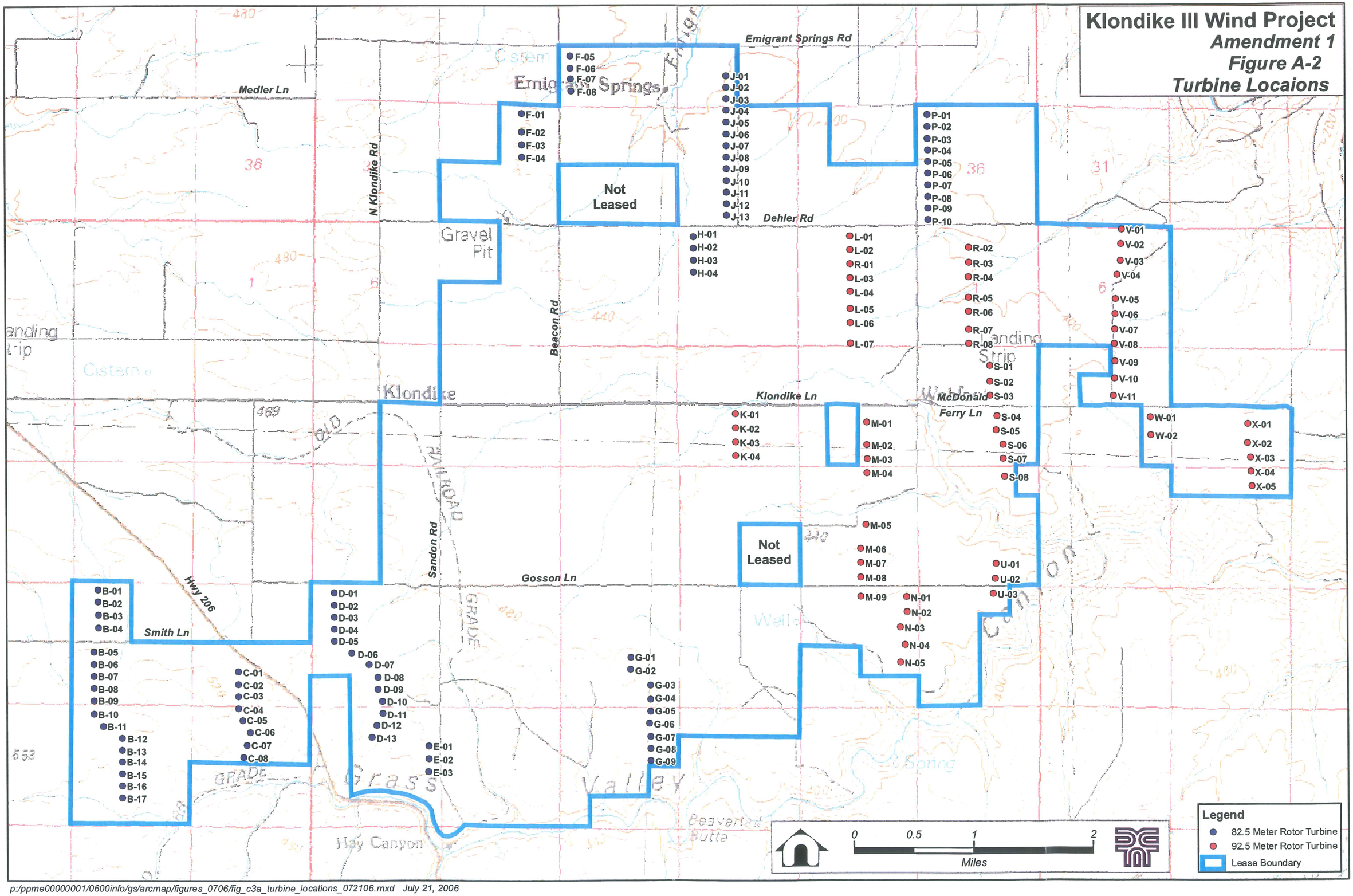
Legend

- Proposed Klondike III GE/Vestas Turbines
- Proposed Klondike III Siemens Turbines
- Klondike II
- Klondike I
- Proposed Met Tower
- Proposed Overhead T-line
- Proposed Overhead T-line and Power Supply
- Proposed Underground Collector within Road Prism
- Proposed Underground Collector not in Road System
- Existing Road Requiring Widening Upgrade
- Proposed Habitat Mitigation Area
- Proposed Laydown Area
- Proposed Substation and O&M Building
- Proposed Substation
- Existing O&M Building
- Existing Substation
- Proposed Substation (BPA)
- Lease Boundary

0 0.5 1 2 Miles

p:/ppme00000001/0600info/gs/arcmap/march_2006/fig_c2_proj_comp_032006.mxd March 20, 2006

Klondike III Wind Project
Amendment 1
Figure A-2
Turbine Locaions



p:/ppme00000001/0600info/gs/arcmap/figures_0706/fig_c3a_turbine_locations_072106.mxd July 21, 2006

Appendix B
Klondike III Wind Project Receiver Locations

Klondike III Wind Project

Basemap

Emigrant Springs Rd
Medler Ln
N Klondike Rd
Holtaw
Not Leased
Dehler Rd
Beacon Rd
Klondike Ln
McDonald Ferry Ln
Spanish Holtaw
Sandon Rd
Gosson Ln
Not Leased
Hwy 206
Smith Ln
Canyon
GRASS
CANYON

0 0.5 1 2
Miles

Legend

Turbines:
- Proposed Klondike III
- Klondike II
- Klondike I
- Proposed Met Tower

Collector Systems:
- Proposed Overhead T-line
- Proposed Overhead T-line and Power Supply
- Proposed Underground Collector within Road Prism
- Proposed Underground Collector not in Road Prism
- Already Permitted Road
- Proposed New Road
- Existing Road
- Existing Road Requiring Widening Upgrade
- Railroad
- Proposed Habitat Mitigation Area
- Proposed Laydown Area
- Proposed Substation and O&M Building
- Proposed Substation
- Proposed Substation (BPA)
- Existing Substation
- Existing O&M Building
- Lease Boundary

p:/ppme00000001/0600info/gis/arcmap/figures/fig__basemap.mxd March 18, 2005

Appendix C
SPM9613 Output for Model Runs

Input Data Summary For:
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R1ContResults.prj

Project Description:
Receiver 1 - All towers 106 dBA

User Defined Observer Positions will be calculated with the following options:

Line and 3-D sources will have 6 points per source
Sort on A-weighted sound levels (maximum to minimum)
Include ISO 9613 Ground Effects with a 10 dB Cap, re Hard groung
Barriers are NOT included in the calculation
Reflectors are NOT included in the calculation
Industrial Sites and Foliage are NOT included in the calculation

Temperature, in degrees C: 11
Relative Humidity, in percent: 60

Source Files:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt31.src // Wpt31
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt32.src // Wpt32
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt33.src // Wpt33
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt34.src // Wpt34
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt35.src // Wpt35
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt36.src // Wpt36
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt37.src // Wpt37
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt38.src // Wpt38
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt39.src // Wpt39
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt40.src // Wpt40
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt49.src // Wpt49

Observer File:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R1.obs // R1

Output Data Summary

x = 2090.8 y = 7155.3 z = 1.5 (in meters)

Source Component	Octave Band Center Frequency, Hz 16	31.5	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(C)
Total of Sources	0.0	0.0	51.8	42.0	35.0	31.8	29.9	18.4	0.0	0.0	34.8	51.7
Wpt40	0.0	0.0	46.2	36.8	29.8	27.0	25.8	15.8	0.0	0.0	30.1	46.1
Wpt39	0.0	0.0	44.6	34.9	28.1	25.2	23.6	12.5	0.0	0.0	28.2	44.5
Wpt38	0.0	0.0	43.4	33.5	26.7	23.6	21.7	9.5	0.0	0.0	26.6	43.2
Wpt37	0.0	0.0	40.9	30.9	23.9	20.5	17.9	3.0	0.0	0.0	23.4	40.8
Wpt36	0.0	0.0	40.1	30.0	23.0	19.4	16.5	0.6	0.0	0.0	22.3	39.9
Wpt35	0.0	0.0	39.4	29.3	22.1	18.4	15.2	0.0	0.0	0.0	21.3	39.2
Wpt34	0.0	0.0	38.8	28.6	21.3	17.5	14.1	0.0	0.0	0.0	20.5	38.6
Wpt33	0.0	0.0	38.0	27.8	20.4	16.4	12.6	0.0	0.0	0.0	19.4	37.8
Wpt32	0.0	0.0	37.4	27.1	19.7	15.6	11.5	0.0	0.0	0.0	18.6	37.2
Wpt31	0.0	0.0	37.0	26.6	19.0	14.8	10.4	0.0	0.0	0.0	17.9	36.7
Wpt49	0.0	0.0	36.1	25.7	17.9	13.4	8.3	0.0	0.0	0.0	16.6	35.9

Input Data Summary For:
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R2ContResults.prj

Project Description:
Receiver 2 - All towers 106 dBA

User Defined Observer Positions will be calculated with the following options:

Line and 3-D sources will have 6 points per source
Sort on A-weighted sound levels (maximum to minimum)
Include ISO 9613 Ground Effects with a 10 dB Cap, re Hard groung
Barriers are NOT included in the calculation
Reflectors are NOT included in the calculation
Industrial Sites and Foliage are NOT included in the calculation

Temperature, in degrees C: 11
Relative Humidity, in percent: 60

Source Files:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt31.src // Wpt31
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt32.src // Wpt32
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt33.src // Wpt33
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt34.src // Wpt34
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt35.src // Wpt35
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt36.src // Wpt36
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt37.src // Wpt37
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt38.src // Wpt38
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt39.src // Wpt39
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt40.src // Wpt40
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt41.src // Wpt41
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt42.src // Wpt42
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt43.src // Wpt43

Observer File:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R2.obs // R2

Output Data Summary

x = 2754.9 y = 9239.3 z = 1.5 (in meters)

Source Component	Octave Band Center Frequency, Hz											
	16	31.5	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(C)
Total of Sources	0.0	0.0	52.8	42.8	35.9	32.7	30.3	16.6	0.0	0.0	35.5	52.7
Wpt38	0.0	0.0	43.6	33.8	27.0	24.0	22.1	10.1	0.0	0.0	26.9	43.5
Wpt39	0.0	0.0	42.7	32.8	26.0	22.8	20.8	7.9	0.0	0.0	25.7	42.6
Wpt40	0.0	0.0	41.8	31.9	25.0	21.7	19.4	5.6	0.0	0.0	24.6	41.7
Wpt33	0.0	0.0	41.7	31.7	24.8	21.5	19.2	5.3	0.0	0.0	24.4	41.6
Wpt34	0.0	0.0	41.7	31.7	24.7	21.5	19.1	5.1	0.0	0.0	24.3	41.5
Wpt32	0.0	0.0	41.6	31.6	24.7	21.4	19.0	5.0	0.0	0.0	24.3	41.5
Wpt35	0.0	0.0	41.5	31.5	24.6	21.3	18.9	4.8	0.0	0.0	24.2	41.4
Wpt31	0.0	0.0	41.5	31.4	24.5	21.2	18.7	4.5	0.0	0.0	24.1	41.3
Wpt36	0.0	0.0	41.3	31.2	24.3	20.9	18.4	4.0	0.0	0.0	23.8	41.1
Wpt43	0.0	0.0	41.0	31.0	24.0	20.7	18.1	3.4	0.0	0.0	23.5	40.9
Wpt37	0.0	0.0	41.0	30.9	24.0	20.6	18.0	3.2	0.0	0.0	23.4	40.8
Wpt42	0.0	0.0	40.9	30.8	23.8	20.4	17.8	2.8	0.0	0.0	23.3	40.7
Wpt41	0.0	0.0	40.6	30.6	23.5	20.1	17.3	2.1	0.0	0.0	22.9	40.4

Input Data Summary For:
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R3ContResults.prj

Project Description:
Receiver 3 - All towers 106 dBA

User Defined Observer Positions will be calculated with the following options:

Line and 3-D sources will have 6 points per source
Sort on A-weighted sound levels (maximum to minimum)
Include ISO 9613 Ground Effects with a 10 dB Cap, re Hard groung
Barriers are NOT included in the calculation
Reflectors are NOT included in the calculation
Industrial Sites and Foliage are NOT included in the calculation

Temperature, in degrees C: 11
Relative Humidity, in percent: 60

Source Files:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt40.src // Wpt40
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt41.src // Wpt41
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt42.src // Wpt42
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt43.src // Wpt43
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt44.src // Wpt44
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt45.src // Wpt45
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt46.src // Wpt46
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt47.src // Wpt47
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt48.src // Wpt48
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt49.src // Wpt49

Observer File:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R3.obs // R3

Output Data Summary

x = 3928 y = 8146.1 z = 1.5 (in meters)

Source Component	Octave Band Center Frequency, Hz 16	31.5	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(C)
Total of Sources	0.0	0.0	54.0	44.5	37.5	34.6	33.0	22.3	0.0	0.0	37.6	53.9
Wpt49	0.0	0.0	46.9	37.8	30.6	27.9	26.7	17.2	0.0	0.0	31.1	46.8
Wpt48	0.0	0.0	46.3	37.0	30.0	27.2	26.0	16.1	0.0	0.0	30.4	46.3
Wpt47	0.0	0.0	45.6	36.1	29.2	26.4	25.0	14.6	0.0	0.0	29.5	45.5
Wpt46	0.0	0.0	44.7	35.1	28.3	25.3	23.8	12.8	0.0	0.0	28.4	44.6
Wpt45	0.0	0.0	43.8	34.0	27.2	24.2	22.4	10.6	0.0	0.0	27.1	43.7
Wpt44	0.0	0.0	42.9	33.0	26.2	23.1	21.1	8.5	0.0	0.0	26.0	42.8
Wpt43	0.0	0.0	42.5	32.6	25.7	22.6	20.5	7.4	0.0	0.0	25.5	42.4
Wpt42	0.0	0.0	41.4	31.4	24.5	21.2	18.7	4.5	0.0	0.0	24.0	41.3
Wpt41	0.0	0.0	40.5	30.5	23.4	20.0	17.2	1.9	0.0	0.0	22.8	40.4
Wpt40	0.0	0.0	39.1	28.9	21.7	18.0	14.7	0.0	0.0	0.0	20.9	38.9

Input Data Summary For:
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R3ElimResults.prj

Project Description:
Receiver 3 - All towers 106 dBA, high towers eliminated

User Defined Observer Positions will be calculated with the following options:

Line and 3-D sources will have 6 points per source
Sort on A-weighted sound levels (maximum to minimum)
Include ISO 9613 Ground Effects with a 10 dB Cap, re Hard groung
Barriers are NOT included in the calculation
Reflectors are NOT included in the calculation
Industrial Sites and Foliage are NOT included in the calculation

Temperature, in degrees C: 11
Relative Humidity, in percent: 60

Source Files:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt40.src // Wpt40
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt41.src // Wpt41
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt42.src // Wpt42
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt43.src // Wpt43
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt44.src // Wpt44
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt45.src // Wpt45
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt46.src // Wpt46
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt47.src // Wpt47

Observer File:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R3.obs // R3

Output Data Summary

x = 3928 y = 8146.1 z = 1.5 (in meters)

Source Component	Octave Band Center Frequency, Hz											
	16	31.5	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(C)
Total of Sources	0.0	0.0	52.1	42.3	35.4	32.3	30.5	18.9	0.0	0.0	35.3	51.9
Wpt47	0.0	0.0	45.6	36.1	29.2	26.4	25.0	14.6	0.0	0.0	29.5	45.5
Wpt46	0.0	0.0	44.7	35.1	28.3	25.3	23.8	12.8	0.0	0.0	28.4	44.6
Wpt45	0.0	0.0	43.8	34.0	27.2	24.2	22.4	10.6	0.0	0.0	27.1	43.7
Wpt44	0.0	0.0	42.9	33.0	26.2	23.1	21.1	8.5	0.0	0.0	26.0	42.8
Wpt43	0.0	0.0	42.5	32.6	25.7	22.6	20.5	7.4	0.0	0.0	25.5	42.4
Wpt42	0.0	0.0	41.4	31.4	24.5	21.2	18.7	4.5	0.0	0.0	24.0	41.3
Wpt41	0.0	0.0	40.5	30.5	23.4	20.0	17.2	1.9	0.0	0.0	22.8	40.4
Wpt40	0.0	0.0	39.1	28.9	21.7	18.0	14.7	0.0	0.0	0.0	20.9	38.9

Input Data Summary For:
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R4ContResults.prj

Project Description:
R4 - All towers at 106 dBA

User Defined Observer Positions will be calculated with the following options:

Line and 3-D sources will have 6 points per source
Sort on A-weighted sound levels (maximum to minimum)
Include ISO 9613 Ground Effects with a 10 dB Cap, re Hard groung
Barriers are NOT included in the calculation
Reflectors are NOT included in the calculation
Industrial Sites and Foliage are NOT included in the calculation

Temperature, in degrees C: 11
Relative Humidity, in percent: 60

Source Files:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt54.src // Wpt54
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt55.src // Wpt55
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt56.src // Wpt56
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt57.src // Wpt57
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt58.src // Wpt58
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt59.src // Wpt59
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt60.src // Wpt60
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt61.src // Wpt61
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt62.src // Wpt62
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt63.src // Wpt63
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt64.src // Wpt64
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt65.src // Wpt65
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt66.src // Wpt66
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt67.src // Wpt67
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt68.src // Wpt68

Observer File:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R4.obs // R4

Output Data Summary

x = 5150.6 y = 7378.8 z = 1.5 (in meters)

	Octave Band Center Frequency, Hz											
Source Component	16	31.5	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(C)
Total of Sources	0.0	0.0	58.7	50.2	42.5	39.9	38.9	30.3	7.2	0.0	43.2	58.8
Wpt60	0.0	0.0	50.2	42.5	34.2	31.7	31.1	23.3	1.7	0.0	35.3	50.4
Wpt61	0.0	0.0	50.0	42.2	34.0	31.5	30.8	23.0	1.1	0.0	35.0	50.2
Wpt59	0.0	0.0	49.8	41.9	33.8	31.3	30.6	22.7	0.5	0.0	34.8	50.0
Wpt62	0.0	0.0	49.1	40.9	33.0	30.5	29.7	21.5	0.0	0.0	33.9	49.3
Wpt58	0.0	0.0	48.8	40.4	32.6	30.1	29.2	20.8	0.0	0.0	33.5	48.8
Wpt63	0.0	0.0	48.0	39.3	31.8	29.2	28.2	19.4	0.0	0.0	32.5	48.0
Wpt64	0.0	0.0	46.6	37.5	30.3	27.6	26.4	16.8	0.0	0.0	30.8	46.6
Wpt65	0.0	0.0	45.5	36.0	29.1	26.3	24.9	14.5	0.0	0.0	29.4	45.4
Wpt66	0.0	0.0	44.2	34.5	27.7	24.7	23.0	11.6	0.0	0.0	27.7	44.1
Wpt56	0.0	0.0	43.1	33.2	26.4	23.3	21.3	8.8	0.0	0.0	26.2	42.9
Wpt57	0.0	0.0	43.0	33.1	26.3	23.2	21.2	8.7	0.0	0.0	26.1	42.9
Wpt67	0.0	0.0	43.0	33.1	26.3	23.2	21.2	8.6	0.0	0.0	26.1	42.8
Wpt55	0.0	0.0	43.0	33.1	26.2	23.1	21.1	8.5	0.0	0.0	26.0	42.8
Wpt54	0.0	0.0	42.7	32.8	26.0	22.8	20.8	7.9	0.0	0.0	25.7	42.6
Wpt68	0.0	0.0	42.1	32.2	25.3	22.1	19.8	6.3	0.0	0.0	24.9	42.0

Input Data Summary For:
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R4ElimResults.prj

Project Description:
R4 - All towers at 106 dBA, high towers eliminated

User Defined Observer Positions will be calculated with the following options:

Line and 3-D sources will have 6 points per source
Sort on A-weighted sound levels (maximum to minimum)
Include ISO 9613 Ground Effects with a 10 dB Cap, re Hard groung
Barriers are NOT included in the calculation
Reflectors are NOT included in the calculation
Industrial Sites and Foliage are NOT included in the calculation

Temperature, in degrees C: 11
Relative Humidity, in percent: 60

Source Files:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt54.src // Wpt54
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt55.src // Wpt55
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt56.src // Wpt56
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt57.src // Wpt57
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt65.src // Wpt65
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt66.src // Wpt66
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt67.src // Wpt67
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt68.src // Wpt68

Observer File:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R4.obs // R4

Output Data Summary

x = 5150.6 y = 7378.8 z = 1.5 (in meters)

Source Component	Octave Band Center Frequency, Hz											
	16	31.5	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(C)
Total of Sources	0.0	0.0	52.5	42.7	35.8	32.8	31.0	19.1	0.0	0.0	35.8	52.4
Wpt65	0.0	0.0	45.5	36.0	29.1	26.3	24.9	14.5	0.0	0.0	29.4	45.4
Wpt66	0.0	0.0	44.2	34.5	27.7	24.7	23.0	11.6	0.0	0.0	27.7	44.1
Wpt56	0.0	0.0	43.1	33.2	26.4	23.3	21.3	8.8	0.0	0.0	26.2	42.9
Wpt57	0.0	0.0	43.0	33.1	26.3	23.2	21.2	8.7	0.0	0.0	26.1	42.9
Wpt67	0.0	0.0	43.0	33.1	26.3	23.2	21.2	8.6	0.0	0.0	26.1	42.8
Wpt55	0.0	0.0	43.0	33.1	26.2	23.1	21.1	8.5	0.0	0.0	26.0	42.8
Wpt54	0.0	0.0	42.7	32.8	26.0	22.8	20.8	7.9	0.0	0.0	25.7	42.6
Wpt68	0.0	0.0	42.1	32.2	25.3	22.1	19.8	6.3	0.0	0.0	24.9	42.0

Input Data Summary For:
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R5ContResults.prj

Project Description:
R5 - All towers at 106 dBA

User Defined Observer Positions will be calculated with the following options:

Line and 3-D sources will have 6 points per source
Sort on A-weighted sound levels (maximum to minimum)
Include ISO 9613 Ground Effects with a 10 dB Cap, re Hard groung
Barriers are NOT included in the calculation
Reflectors are NOT included in the calculation
Industrial Sites and Foliage are NOT included in the calculation

Temperature, in degrees C: 11
Relative Humidity, in percent: 60

Source Files:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt54.src // Wpt54
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt55.src // Wpt55
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt56.src // Wpt56
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt57.src // Wpt57
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt58.src // Wpt58
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt59.src // Wpt59
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt60.src // Wpt60
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt61.src // Wpt61
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt62.src // Wpt62
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt63.src // Wpt63
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt64.src // Wpt64
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt65.src // Wpt65

Observer File:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R5.obs // R5

Output Data Summary

x = 5376 y = 8111.4 z = 1.5 (in meters)

Source Component	Octave Band Center Frequency, Hz 16	31.5	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(C)
Total of Sources	0.0	0.0	56.2	47.5	39.9	37.1	36.0	27.3	4.9	0.0	40.5	56.2
Wpt58	0.0	0.0	50.9	43.4	34.9	32.5	31.9	24.5	4.0	0.0	36.1	51.1
Wpt59	0.0	0.0	48.8	40.4	32.7	30.1	29.3	20.9	0.0	0.0	33.5	48.9
Wpt60	0.0	0.0	47.2	38.2	30.9	28.2	27.1	17.8	0.0	0.0	31.4	47.2
Wpt61	0.0	0.0	45.7	36.3	29.4	26.5	25.2	14.9	0.0	0.0	29.6	45.7
Wpt62	0.0	0.0	44.4	34.7	27.9	25.0	23.3	12.1	0.0	0.0	28.0	44.3
Wpt63	0.0	0.0	43.2	33.4	26.6	23.5	21.6	9.2	0.0	0.0	26.4	43.1
Wpt64	0.0	0.0	42.1	32.2	25.3	22.1	19.8	6.4	0.0	0.0	25.0	42.0
Wpt65	0.0	0.0	41.3	31.3	24.3	21.0	18.5	4.0	0.0	0.0	23.8	41.1
Wpt54	0.0	0.0	41.3	31.3	24.3	21.0	18.4	4.0	0.0	0.0	23.8	41.1
Wpt55	0.0	0.0	41.0	31.0	24.0	20.6	18.0	3.2	0.0	0.0	23.4	40.8
Wpt56	0.0	0.0	40.7	30.7	23.6	20.2	17.5	2.4	0.0	0.0	23.1	40.5
Wpt57	0.0	0.0	40.3	30.2	23.2	19.7	16.8	1.2	0.0	0.0	22.5	40.1

Input Data Summary For:
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R5ElimResults.prj

Project Description:
R5 - All towers at 106 dBA, high towers eliminated

User Defined Observer Positions will be calculated with the following options:

Line and 3-D sources will have 6 points per source
Sort on A-weighted sound levels (maximum to minimum)
Include ISO 9613 Ground Effects with a 10 dB Cap, re Hard groung
Barriers are NOT included in the calculation
Reflectors are NOT included in the calculation
Industrial Sites and Foliage are NOT included in the calculation

Temperature, in degrees C: 11
Relative Humidity, in percent: 60

Source Files:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt54.src // Wpt54
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt55.src // Wpt55
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt56.src // Wpt56
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt57.src // Wpt57
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt61.src // Wpt61
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt62.src // Wpt62
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt63.src // Wpt63
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt64.src // Wpt64
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt65.src // Wpt65

Observer File:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R5.obs // R5

Output Data Summary

x = 5376 y = 8111.4 z = 1.5 (in meters)

Source Component	Octave Band Center Frequency, Hz											
	16	31.5	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(C)
Total of Sources	0.0	0.0	52.2	42.4	35.4	32.3	30.4	18.5	0.0	0.0	35.3	52.0
Wpt61	0.0	0.0	45.7	36.3	29.4	26.5	25.2	14.9	0.0	0.0	29.6	45.7
Wpt62	0.0	0.0	44.4	34.7	27.9	25.0	23.3	12.1	0.0	0.0	28.0	44.3
Wpt63	0.0	0.0	43.2	33.4	26.6	23.5	21.6	9.2	0.0	0.0	26.4	43.1
Wpt64	0.0	0.0	42.1	32.2	25.3	22.1	19.8	6.4	0.0	0.0	25.0	42.0
Wpt65	0.0	0.0	41.3	31.3	24.3	21.0	18.5	4.0	0.0	0.0	23.8	41.1
Wpt54	0.0	0.0	41.3	31.3	24.3	21.0	18.4	4.0	0.0	0.0	23.8	41.1
Wpt55	0.0	0.0	41.0	31.0	24.0	20.6	18.0	3.2	0.0	0.0	23.4	40.8
Wpt56	0.0	0.0	40.7	30.7	23.6	20.2	17.5	2.4	0.0	0.0	23.1	40.5
Wpt57	0.0	0.0	40.3	30.2	23.2	19.7	16.8	1.2	0.0	0.0	22.5	40.1

Input Data Summary For:
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R6ContResults.prj

Project Description:
R6 - All towers at 107 dBA

User Defined Observer Positions will be calculated with the following options:

Line and 3-D sources will have 6 points per source
Sort on A-weighted sound levels (maximum to minimum)
Include ISO 9613 Ground Effects with a 10 dB Cap, re Hard groung
Barriers are NOT included in the calculation
Reflectors are NOT included in the calculation
Industrial Sites and Foliage are NOT included in the calculation

Temperature, in degrees C: 11
Relative Humidity, in percent: 60

Source Files:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S16.src // S16
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S17.src // S17
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S18.src // S18
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S34.src // S34
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S35.src // S35
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S36.src // S36
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S43.src // S43
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S4.src // S4
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S5.src // S5
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S6.src // S6
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S7.src // S7
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S8.src // S8
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S9.src // S9
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S14.src // S14
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S15.src // S15
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S42.src // S42
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S2.src // S2
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S3.src // S3
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S44.src // S44
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S45.src // S45
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S10.src // S10
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S11.src // S11
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S12.src // S12
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S13.src // S13
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S37.src // S37
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S38.src // S38

Observer File:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R6.obs // R6

Output Data Summary

x = 8383.6 y = 3843.4 z = 1.5 (in meters)

Source Component	Octave Band Center Frequency, Hz											
	16	31.5	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(C)
Total of Sources	0.0	60.5	58.8	49.8	46.0	42.4	38.2	28.1	4.8	0.0	44.2	61.3
S18	0.0	50.7	49.0	41.2	36.5	33.2	29.6	21.1	1.2	0.0	35.2	51.6
S17	0.0	49.9	48.3	40.1	35.8	32.4	28.7	19.8	0.0	0.0	34.3	50.8
S16	0.0	48.7	47.0	38.4	34.4	31.0	27.1	17.6	0.0	0.0	32.8	49.6
S9	0.0	48.5	46.8	38.1	34.2	30.8	26.9	17.2	0.0	0.0	32.6	49.4
S8	0.0	48.4	46.7	38.0	34.1	30.7	26.7	17.0	0.0	0.0	32.5	49.2
S7	0.0	47.8	46.1	37.1	33.4	29.9	25.9	15.8	0.0	0.0	31.7	48.6
S15	0.0	47.3	45.6	36.5	32.9	29.4	25.2	14.8	0.0	0.0	31.1	48.1
S34	0.0	47.2	45.5	36.4	32.8	29.2	25.1	14.6	0.0	0.0	31.0	48.0
S6	0.0	46.9	45.2	35.9	32.4	28.9	24.6	14.0	0.0	0.0	30.6	47.7
S35	0.0	46.8	45.2	35.9	32.4	28.8	24.6	13.9	0.0	0.0	30.5	47.6
S36	0.0	46.1	44.4	35.0	31.6	27.9	23.6	12.3	0.0	0.0	29.6	46.9
S5	0.0	45.8	44.1	34.6	31.2	27.5	23.1	11.6	0.0	0.0	29.2	46.6
S14	0.0	45.5	43.8	34.2	30.9	27.2	22.7	10.9	0.0	0.0	28.8	46.2
S43	0.0	45.3	43.6	34.0	30.7	27.0	22.4	10.5	0.0	0.0	28.6	46.1
S42	0.0	45.2	43.5	33.9	30.6	26.8	22.3	10.3	0.0	0.0	28.5	46.0
S4	0.0	44.6	42.9	33.2	29.9	26.1	21.4	8.9	0.0	0.0	27.7	45.4
S13	0.0	44.3	42.6	32.8	29.5	25.7	20.9	8.1	0.0	0.0	27.3	45.0
S44	0.0	44.0	42.3	32.5	29.2	25.3	20.5	7.4	0.0	0.0	27.0	44.8
S3	0.0	43.6	41.8	32.0	28.7	24.7	19.7	6.2	0.0	0.0	26.3	44.3
S37	0.0	43.5	41.8	31.9	28.6	24.6	19.6	6.0	0.0	0.0	26.3	44.2
S12	0.0	43.2	41.4	31.6	28.2	24.2	19.1	5.2	0.0	0.0	25.9	43.9
S45	0.0	43.0	41.2	31.3	28.0	23.9	18.8	4.6	0.0	0.0	25.6	43.7
S38	0.0	42.6	40.9	31.0	27.6	23.5	18.2	3.7	0.0	0.0	25.2	43.3
S2	0.0	42.6	40.9	31.0	27.6	23.5	18.2	3.6	0.0	0.0	25.1	43.3
S11	0.0	42.0	40.2	30.3	26.8	22.6	17.1	1.8	0.0	0.0	24.3	42.7
S10	0.0	42.0	40.2	30.3	26.8	22.6	17.1	1.7	0.0	0.0	24.3	42.6

Input Data Summary For:
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R6ElimResults.prj

Project Description:
R6 - All towers at 107 dBA, high towers eliminated

User Defined Observer Positions will be calculated with the following options:

Line and 3-D sources will have 6 points per source
Sort on A-weighted sound levels (maximum to minimum)
Include ISO 9613 Ground Effects with a 10 dB Cap, re Hard groung
Barriers are NOT included in the calculation
Reflectors are NOT included in the calculation
Industrial Sites and Foliage are NOT included in the calculation

Temperature, in degrees C: 11
Relative Humidity, in percent: 60

Source Files:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S37.src // S37
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S45.src // S45
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S2.src // S2
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S3.src // S3
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S12.src // S12
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S11.src // S11
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S10.src // S10
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S44.src // S44
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S13.src // S13
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S38.src // S38

Observer File:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R6.obs // R6

Output Data Summary

x = 8383.6 y = 3843.4 z = 1.5 (in meters)

Source Component	Octave Band Center Frequency, Hz 16	31.5	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(C)
Total of Sources	0.0	53.1	51.4	41.6	38.2	34.2	29.1	15.3	0.0	0.0	35.8	53.8
S13	0.0	44.3	42.6	32.8	29.5	25.7	20.9	8.1	0.0	0.0	27.3	45.0
S44	0.0	44.0	42.3	32.5	29.2	25.3	20.5	7.4	0.0	0.0	27.0	44.8
S3	0.0	43.6	41.8	32.0	28.7	24.7	19.7	6.2	0.0	0.0	26.3	44.3
S37	0.0	43.5	41.8	31.9	28.6	24.6	19.6	6.0	0.0	0.0	26.3	44.2
S12	0.0	43.2	41.4	31.6	28.2	24.2	19.1	5.2	0.0	0.0	25.9	43.9
S45	0.0	43.0	41.2	31.3	28.0	23.9	18.8	4.6	0.0	0.0	25.6	43.7
S38	0.0	42.6	40.9	31.0	27.6	23.5	18.2	3.7	0.0	0.0	25.2	43.3
S2	0.0	42.6	40.9	31.0	27.6	23.5	18.2	3.6	0.0	0.0	25.1	43.3
S11	0.0	42.0	40.2	30.3	26.8	22.6	17.1	1.8	0.0	0.0	24.3	42.7
S10	0.0	42.0	40.2	30.3	26.8	22.6	17.1	1.7	0.0	0.0	24.3	42.6

Input Data Summary For:
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R7ContResultsbar.prj

Project Description:
R7 - All towers at 107 dBA, transformers

User Defined Observer Positions will be calculated with the following options:

Line and 3-D sources will have 6 points per source
Sort on A-weighted sound levels (maximum to minimum)
Include ISO 9613 Ground Effects with a 10 dB Cap, re Hard groung
Barriers are included in the calculation
Reflectors are NOT included in the calculation
Industrial Sites and Foliage are NOT included in the calculation

Temperature, in degrees C: 11
Relative Humidity, in percent: 60

Source Files:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S17.src // S17
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S18.src // S18
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S34.src // S34
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S35.src // S35
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S36.src // S36
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S37.src // S37
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S38.src // S38
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S42.src // S42
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S43.src // S43
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S44.src // S44
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S45.src // S45
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S10.src // S10
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S32.src // S32
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S8.src // S8
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S9.src // S9
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S5.src // S5
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S6.src // S6
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S7.src // S7
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S15.src // S15
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S16.src // S16
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S39.src // S39
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S40.src // S40
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S41.src // S41
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S46.src // S46
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\Transformers.src // Transformers

Barrier Files:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\bar1.bar // Barrier 1
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\bar2.bar // Barrier 2
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\bar3.bar // Barrier 3
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\bar4.bar // Barrier 4
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\bar5.bar // Barrier 5
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\bar6.bar // Barrier 6
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\bar7.bar // Barrier 7

Observer File:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R7.obs // R7

Output Data Summary

x = 8441 y = 3161 z = 1.5 (in meters)

Source Component	Octave Band Center Frequency, Hz											
	16	31.5	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(C)
Total of Sources	0.0	59.7	58.0	48.7	45.1	41.6	37.2	26.4	1.0	0.0	43.3	60.4
S43	0.0	49.8	48.2	40.0	35.6	32.3	28.6	19.6	0.0	0.0	34.2	50.7
S44	0.0	48.5	46.9	38.2	34.3	30.8	26.9	17.3	0.0	0.0	32.6	49.4
S42	0.0	47.8	46.1	37.1	33.4	29.9	25.9	15.8	0.0	0.0	31.7	48.6
S36	0.0	47.5	45.8	36.7	33.1	29.6	25.5	15.2	0.0	0.0	31.4	48.3
S45	0.0	47.2	45.5	36.4	32.8	29.3	25.1	14.7	0.0	0.0	31.0	48.0
S35	0.0	46.8	45.1	35.8	32.3	28.7	24.5	13.8	0.0	0.0	30.5	47.6
S37	0.0	46.7	45.0	35.7	32.3	28.7	24.4	13.6	0.0	0.0	30.4	47.5
S18	0.0	46.6	44.9	35.6	32.1	28.5	24.3	13.4	0.0	0.0	30.2	47.4
S38	0.0	46.1	44.4	34.9	31.5	27.8	23.5	12.2	0.0	0.0	29.5	46.8
S10	0.0	45.9	44.2	34.7	31.3	27.7	23.3	11.8	0.0	0.0	29.3	46.7
S34	0.0	45.8	44.1	34.6	31.2	27.6	23.1	11.7	0.0	0.0	29.2	46.6
S9	0.0	45.7	44.0	34.5	31.1	27.4	23.0	11.4	0.0	0.0	29.1	46.5
S17	0.0	45.3	43.6	34.0	30.7	26.9	22.4	10.5	0.0	0.0	28.6	46.0
S8	0.0	44.8	43.0	33.3	30.0	26.2	21.6	9.2	0.0	0.0	27.9	45.5
S32	0.0	44.7	43.0	33.3	30.0	26.2	21.5	9.1	0.0	0.0	27.9	45.5
S39	0.0	44.6	42.8	33.1	29.8	26.0	21.3	8.7	0.0	0.0	27.6	45.3
S16	0.0	44.1	42.3	32.6	29.3	25.4	20.5	7.5	0.0	0.0	27.0	44.8
S40	0.0	43.8	42.0	32.2	28.9	25.0	20.1	6.7	0.0	0.0	26.6	44.5
S7	0.0	43.8	42.0	32.2	28.9	25.0	20.1	6.7	0.0	0.0	26.6	44.5
S46	0.0	43.4	41.7	31.8	28.5	24.5	19.5	5.8	0.0	0.0	26.2	44.1
S41	0.0	43.0	41.2	31.4	28.0	23.9	18.8	4.6	0.0	0.0	25.6	43.7
S15	0.0	42.9	41.2	31.3	28.0	23.9	18.7	4.5	0.0	0.0	25.6	43.6
S6	0.0	42.8	41.1	31.2	27.8	23.7	18.5	4.2	0.0	0.0	25.4	43.5
S5	0.0	41.9	40.1	30.2	26.7	22.5	17.0	1.6	0.0	0.0	24.2	42.6
Transformers	0.0	0.0	0.0	22.1	22.0	26.1	14.0	0.8	0.0	0.0	24.1	28.8

Input Data Summary For:
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R7ElimResultsbar.prj

Project Description:
R7 - All towers at 107 dBA, high towers eliminated, transformers included

User Defined Observer Positions will be calculated with the following options:

Line and 3-D sources will have 6 points per source
Sort on A-weighted sound levels (maximum to minimum)
Include ISO 9613 Ground Effects with a 10 dB Cap, re Hard groung
Barriers are included in the calculation
Reflectors are NOT included in the calculation
Industrial Sites and Foliage are NOT included in the calculation

Temperature, in degrees C: 11
Relative Humidity, in percent: 60

Source Files:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\Transformers.src // Transformers
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S15.src // S15
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S41.src // S41
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S46.src // S46
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S6.src // S6
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S5.src // S5
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S40.src // S40
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S16.src // S16
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S39.src // S39
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\S7.src // S7

Barrier Files:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\bar1.bar // Barrier 1
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\bar2.bar // Barrier 2
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\bar3.bar // Barrier 3
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\bar4.bar // Barrier 4
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\bar5.bar // Barrier 5
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\bar6.bar // Barrier 6
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\bar7.bar // Barrier 7

Observer File:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R7.obs // R7

Output Data Summary

x = 8441 y = 3161 z = 1.5 (in meters)

	Octave Band Center Frequency, Hz											
Source Component	16	31.5	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(C)
Total of Sources	0.0	53.0	51.2	41.5	38.2	34.7	29.2	15.7	0.0	0.0	36.0	53.7
S39	0.0	44.6	42.8	33.1	29.8	26.0	21.3	8.7	0.0	0.0	27.6	45.3
S16	0.0	44.1	42.3	32.6	29.3	25.4	20.5	7.5	0.0	0.0	27.0	44.8
S40	0.0	43.8	42.0	32.2	28.9	25.0	20.1	6.7	0.0	0.0	26.6	44.5
S7	0.0	43.8	42.0	32.2	28.9	25.0	20.1	6.7	0.0	0.0	26.6	44.5
S46	0.0	43.4	41.7	31.8	28.5	24.5	19.5	5.8	0.0	0.0	26.2	44.1
S41	0.0	43.0	41.2	31.4	28.0	23.9	18.8	4.6	0.0	0.0	25.6	43.7
S15	0.0	42.9	41.2	31.3	28.0	23.9	18.7	4.5	0.0	0.0	25.6	43.6
S6	0.0	42.8	41.1	31.2	27.8	23.7	18.5	4.2	0.0	0.0	25.4	43.5
S5	0.0	41.9	40.1	30.2	26.7	22.5	17.0	1.6	0.0	0.0	24.2	42.6
Transformers	0.0	0.0	0.0	22.1	22.0	26.1	14.0	0.8	0.0	0.0	24.1	28.8

Input Data Summary For:
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R5 NEW LOC ContResults.

Project Description:
R5 - Report Configuration 2A - All towers at 106 dBA; F-05 to F-08 shifted 450 feet; J-01 to J-13 not shifted

User Defined Observer Positions will be calculated with the following options:

Line and 3-D sources will have 6 points per source
Sort on A-weighted sound levels (maximum to minimum)
Include ISO 9613 Ground Effects with a 10 dB Cap, re Hard groung
Barriers are NOT included in the calculation
Reflectors are NOT included in the calculation
Industrial Sites and Foliage are NOT included in the calculation

Temperature, in degrees C: 11
Relative Humidity, in percent: 60

Source Files:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt54.src // Wpt54
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt55.src // Wpt55
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt56.src // Wpt56
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt57.src // Wpt57
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G55.src // G55
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G56.src // G56
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G57.src // G57
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G58.src // G58
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G59.src // G59
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G60.src // G60
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G61.src // G61
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G54.src // G54

Observer File:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R5.obs // R5

Output Data Summary

x = 5376 y = 8111.4 z = 1.5 (in meters)

Source Component	Octave Band Center Frequency, Hz											
	16	31.5	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(C)
Total of Sources	0.0	0.0	53.3	43.5	36.6	33.5	31.5	19.7	0.0	0.0	36.4	53.2
G54	0.0	0.0	46.1	36.8	29.7	27.0	25.7	15.7	0.0	0.0	30.1	46.0
G55	0.0	0.0	45.0	35.4	28.5	25.6	24.1	13.3	0.0	0.0	28.7	44.9
G56	0.0	0.0	43.9	34.2	27.4	24.4	22.6	10.9	0.0	0.0	27.3	43.8
G57	0.0	0.0	43.0	33.1	26.2	23.1	21.1	8.5	0.0	0.0	26.0	42.8
G58	0.0	0.0	42.0	32.1	25.2	21.9	19.7	6.1	0.0	0.0	24.8	41.9
Wpt54	0.0	0.0	41.3	31.3	24.3	21.0	18.4	4.0	0.0	0.0	23.8	41.1
G59	0.0	0.0	41.2	31.1	24.2	20.8	18.3	3.7	0.0	0.0	23.7	41.0
Wpt55	0.0	0.0	41.0	31.0	24.0	20.6	18.0	3.2	0.0	0.0	23.4	40.8
Wpt56	0.0	0.0	40.7	30.7	23.6	20.2	17.5	2.4	0.0	0.0	23.1	40.5
G60	0.0	0.0	40.4	30.3	23.2	19.8	16.9	1.4	0.0	0.0	22.6	40.2
Wpt57	0.0	0.0	40.3	30.2	23.2	19.7	16.8	1.2	0.0	0.0	22.5	40.1
G61	0.0	0.0	39.6	29.5	22.4	18.8	15.7	0.0	0.0	0.0	21.6	39.5

Input Data Summary For:
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R5 NEW LOC ContResults

Project Description:
R5 - Report Configuration 2B - All towers at 106 dBA; F-05 to F-08 shifted 450 feet; J-02 to J-13 not shifted; J-01 not included

User Defined Observer Positions will be calculated with the following options:

Line and 3-D sources will have 6 points per source
Sort on A-weighted sound levels (maximum to minimum)
Include ISO 9613 Ground Effects with a 10 dB Cap, re Hard groung
Barriers are NOT included in the calculation
Reflectors are NOT included in the calculation
Industrial Sites and Foliage are NOT included in the calculation

Temperature, in degrees C: 11
Relative Humidity, in percent: 60

Source Files:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt54.src // Wpt54
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt55.src // Wpt55
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt56.src // Wpt56
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt57.src // Wpt57
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G55.src // G55
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G56.src // G56
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G57.src // G57
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G58.src // G58
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G59.src // G59
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G60.src // G60
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G61.src // G61

Observer File:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R5.obs // R5

Output Data Summary

x = 5376 y = 8111.4 z = 1.5 (in meters)

Source Component	Octave Band Center Frequency, Hz											
	16	31.5	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(C)
Total of Sources	0.0	0.0	52.4	42.5	35.6	32.4	30.2	17.6	0.0	0.0	35.3	52.3
G55	0.0	0.0	45.0	35.4	28.5	25.6	24.1	13.3	0.0	0.0	28.7	44.9
G56	0.0	0.0	43.9	34.2	27.4	24.4	22.6	10.9	0.0	0.0	27.3	43.8
G57	0.0	0.0	43.0	33.1	26.2	23.1	21.1	8.5	0.0	0.0	26.0	42.8
G58	0.0	0.0	42.0	32.1	25.2	21.9	19.7	6.1	0.0	0.0	24.8	41.9
Wpt54	0.0	0.0	41.3	31.3	24.3	21.0	18.4	4.0	0.0	0.0	23.8	41.1
G59	0.0	0.0	41.2	31.1	24.2	20.8	18.3	3.7	0.0	0.0	23.7	41.0
Wpt55	0.0	0.0	41.0	31.0	24.0	20.6	18.0	3.2	0.0	0.0	23.4	40.8
Wpt56	0.0	0.0	40.7	30.7	23.6	20.2	17.5	2.4	0.0	0.0	23.1	40.5
G60	0.0	0.0	40.4	30.3	23.2	19.8	16.9	1.4	0.0	0.0	22.6	40.2
Wpt57	0.0	0.0	40.3	30.2	23.2	19.7	16.8	1.2	0.0	0.0	22.5	40.1
G61	0.0	0.0	39.6	29.5	22.4	18.8	15.7	0.0	0.0	0.0	21.6	39.5

Input Data Summary For:
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R5 NEW LOC ContResults

Project Description:
R5 - Report Configuration 2C - All towers at 106 dBA; No shift for any towers; J-01 not included

User Defined Observer Positions will be calculated with the following options:

Line and 3-D sources will have 6 points per source
Sort on A-weighted sound levels (maximum to minimum)
Include ISO 9613 Ground Effects with a 10 dB Cap, re Hard groung
Barriers are NOT included in the calculation
Reflectors are NOT included in the calculation
Industrial Sites and Foliage are NOT included in the calculation

Temperature, in degrees C: 11
Relative Humidity, in percent: 60

Source Files:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G55.src // G55
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G56.src // G56
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G57.src // G57
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G58.src // G58
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G59.src // G59
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G60.src // G60
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\G61.src // G61
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt54ns.src // Wpt54ns
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt55ns.src // Wpt55ns
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt56ns.src // Wpt56ns
N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\wpt57ns.src // Wpt57ns

Observer File:

N:\Projects\242\SPM 9613 Model Files\107 db Reanalysis\R5.obs // R5

Output Data Summary

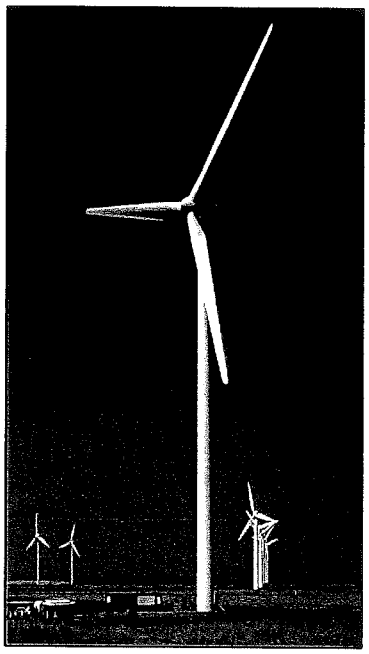
x = 5376 y = 8111.4 z = 1.5 (in meters)

Source Component	Octave Band Center Frequency, Hz											
	16	31.5	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(C)
Total of Sources	0.0	0.0	52.2	42.3	35.4	32.2	30.0	17.4	0.0	0.0	35.1	52.1
G55	0.0	0.0	45.0	35.4	28.5	25.6	24.1	13.3	0.0	0.0	28.7	44.9
G56	0.0	0.0	43.9	34.2	27.4	24.4	22.6	10.9	0.0	0.0	27.3	43.8
G57	0.0	0.0	43.0	33.1	26.2	23.1	21.1	8.5	0.0	0.0	26.0	42.8
G58	0.0	0.0	42.0	32.1	25.2	21.9	19.7	6.1	0.0	0.0	24.8	41.9
G59	0.0	0.0	41.2	31.1	24.2	20.8	18.3	3.7	0.0	0.0	23.7	41.0
Wpt54ns	0.0	0.0	40.5	30.5	23.5	20.0	17.2	1.9	0.0	0.0	22.8	40.4
G60	0.0	0.0	40.4	30.3	23.2	19.8	16.9	1.4	0.0	0.0	22.6	40.2
Wpt55ns	0.0	0.0	40.3	30.2	23.2	19.7	16.8	1.2	0.0	0.0	22.5	40.1
Wpt56ns	0.0	0.0	40.1	30.0	22.9	19.3	16.4	0.4	0.0	0.0	22.2	39.9
Wpt57ns	0.0	0.0	39.7	29.6	22.5	18.9	15.8	0.0	0.0	0.0	21.7	39.5
G61	0.0	0.0	39.6	29.5	22.4	18.8	15.7	0.0	0.0	0.0	21.6	39.5

Appendix D
Manufacturer Turbine Acoustic Emission Data

GE Energy

Technical Documentation Wind Turbine Generator System GE 1.5sl/sle 50 & 60 Hz



Noise emission characteristics

Normal operation according to IEC

GE imagination at work

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GE imagination at work

Table of Contents

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1 Introduction

The noise emission characteristics of the GE Energy wind turbine series GE 1.5sl and 1.5sle with a rotor diameter of 77-m, 50 and 60 Hz versions, including Cold Weather Extreme versions, comprise sound power level data, tonality values, third octave band and octave band spectra.

This document describes the noise characteristics of the turbine for normal operation. Noise-reduced operation (NRO) is described in document [1.5sl_sle_SCD_allcomp_NRO].

The data here provided is calculated from simulations and has been confirmed by several measurements, including those performed by independent institutes.

The sound power level (L_{WA}) is calculated at hub height over the entire wind speed range from cut-in wind speed to cut out wind speed. For the maximum sound power level a reference value and uncertainty band are specified. Together this gives the warranted sound power level. Tabled L_{WA}-values are given as function of hub height wind speed (reference values) and as a function of wind speed at 10-m height, assuming standard hub height and logarithmic wind profile for surface roughness ($z_{0,ref}$) = 0.03 m, see section 2.2. Characteristics as a function of wind speed at 10-meter height for different combinations of hub height and wind shear profile can be provided at request.

If a wind turbine noise performance test is carried out, it needs to be done in accordance with the regulations of the international standard IEC 61400-11: 2002 (abstract available upon request).

2 Sound Power Level Data

2.1 L_{WA} as a function of hub height wind speed

The following table provides the calculated reference mean sound power level values as a function of wind speed.

Wind speed at hub height [m/s]	GE 1.5 sl/sle all hub heights L_{WA} [dB]
3	< 96
4	< 96
5	< 96
6	96.6
7	99.8
8	102.7
9 – cut out	≤ 104.0

Table 2-1: Mean sound power level as function of hub height wind speed

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2.2 L_{WA} as a function of wind speed at 10-m height

Following are tabled values for the L_{WA} as a function of the wind speed at 10-meter height for different hub heights. The wind speed is converted using a standard logarithmic wind profile, in this case using a surface roughness of (z_{0ref}) = 0.03 m, which is representative for average terrain conditions.

$$V_{10m\ height} = V_{hub} \frac{\ln\left(10m / z_{0ref}\right)}{\ln\left(hub\ height / z_{0ref}\right)} \quad 1$$

Characteristics for other combinations of surface roughness and hub height are available upon request.

Wind speed at 10-m height [m/s]	GE 1.5 sl/sle 61.4-m HH L_{WA} [dB]	GE 1.5 sl/sle 70-m HH L_{WA} [dB]	GE 1.5 sl/sle 80-m HH L_{WA} [dB]	GE 1.5 sl/sle 85-m HH L_{WA} [dB]	GE 1.5 sl/sle 100-m HH L_{WA} [dB]
3	< 96	< 96	< 96	< 96	< 96
4	< 96	< 96	< 96	< 96	96.1
5	98.4	98.7	99.1	99.3	99.7
6	102.4	102.8	103.0	103.1	103.3
7– cut out	≤ 104	≤ 104	≤ 104	≤ 104	≤ 104

Table 2-2: Sound power level characteristics for different hub heights as function of wind speed at 10 m height

3 Uncertainty Levels

Mean uncertainty levels for the sound power, or K-factors, are derived from independent measurements. Their value depends on the applied probability level and standard deviation for reproducibility (σ_R), as described in the IEC 61400-14 TS ed. 1[2]. Because the K-factor depends on the quality of the measurements, the number of the measurements, and on local regulations, a fixed value is here used instead to define the uncertainty band with respect to the reference sound power level.

For all 1.5sl and 1.5sle turbines an uncertainty band of **(K) = ± 2.0 dB** is defined.

4 Tonality

At the reference measuring point R_o, a ground distance from the turbine base equal to hub height plus half the rotor diameter, the GE 1.5sl/sle turbine has a value for tonality of **(ΔL_a) ≤ 4 dB**, irrespective of wind speed, turbine type, hub height, and grid frequency.[3]

1 Simplified from IEC 61400-11: 2002 equation 7

2 Here referring to the unofficial release of the IEC 61400-14 TS ed. 1, labeled as 'CDV' (committee draft for voting)

3 R_o and ΔL_a are defined here according to IEC 61400-11: 2002

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5 Third Octave Band and Octave Band Spectra

Following is a table with the octave and third octave band values with a sum of 104 dB.

Note: these values are informative only and not suitable for warranty purposes.

A-weighted octave band and third octave band sound power level spectra												
Frequency [Hz]	50	**63**	80	100	**125**	160	200	**250**	315	400	**500**	630
L_{WA} [dB] 1/3 octave	76.2	79.9	82.6	84.8	86.7	92.4	90.7	92	94	94.3	93.8	93.2
L_{WA} [dB] octave	85.1			94.0			97.2			98.6		
Frequency [Hz]	800	**1000**	1250	1600	**2000**	2500	3150	**4000**	5000	6300	**8000**	10000
L_{WA} [dB] 1/3 octave	94	92.8	92.3	91.5	89.6	87.1	84.8	82.2	78.6	75.9	71.3	70.8
L_{WA} [dB] octave	97.9			94.5			87.3			78.1		

Table 5-1: Third octave band and octave band spectra

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2.3 MW Mk II
Acoustic Emission

Warranted Sound Power Levels
The sound power levels have been determined on basis of measured values and an appropriate wind speed related safety margin. The sound power levels (L_{WA}) below is valid for the corresponding wind speeds measured in 10 m height.

Wind speed [m/s]	6	7	8	9	10
Noise emission, L_{wa} [dB(A)]	105	107	107	107	107

Typical Octave Band
A typical octave band spectrum is tabulated below valid for 107 dB(A) at 8m/s in 10m.

Octave band frequency [Hz]	31.5	63	125	250	500	1000	2000	4000	8000
L_{wa} [dB(A)]	74.7	86.3	95.3	102.0	102.6	99.0	95.0	90.2	85.4

Noise Restricted Operation
Lower sound power levels can be achieved with the 2.3 MW Mk II wind turbine by controlling the turbine in noise restricted operation. However, this will slightly reduce the power output of the turbine. Contact SWP for further information on this option.

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