



Portland General Electric Company
121 SW Salmon Street • Portland, Oregon 97204

BCW OPS Doc 111

February 20, 2009

FEB 23 2009

John White
Oregon Department of Energy
625 Marion Street, NE
Salem, OR 97301-3742

**Re: Proposed Changes to Biglow Canyon Wind Farm:
Request for Department of Energy Determination Pursuant to
OAR 345-027-0050**

Dear John:

As you know, Portland General Electric Company (PGE) is the holder of the Third Amended Site Certificate for the Biglow Canyon Wind Farm (the "Site Certificate"). Construction of the Biglow Canyon Wind Farm has commenced. PGE is proposing to make minor modifications to the approved facility as shown herein (see Figures 1 – 6). Proposed modifications include changes to the routing for collector lines and adjustment to turbine access roads as shown in Figure 1. The changes have arisen from practical considerations that are intended to maximize continued farming, improve safety for motorists, and reduce soil disturbance. There are no proposed changes to turbine locations. The total surface area impacted will not change significantly. Approximately 0.9 acres of additional permanent impact are estimated, although there will be a reduction in impact to category 4 CRP. The total amount of permanently impacted land for the project would increase by 0.5%. Temporary impact areas will increase by approximately 5.1 acres. A summary of the potential acreages affected by the modifications is presented in Table 1 below.

Pursuant to Oregon Administrative Rule (OAR) 345-027-0050(5), PGE requests a determination by the Oregon Department of Energy that the changes outlined above do not require an amendment to the Site Certificate. OAR 345-027-0050(5) provides:

A certificate holder may ask the Department to determine whether a proposed change requires a site certificate amendment by submitting a written description of the proposed change, the certificate holder's analysis of the

proposed change under sections (1) and (2) and the written evaluation described in section (3).

Description of Proposed Changes

Modification 1: Alternate Entrance to Tower Access Road 12N

The proposed modification is to change the entrance to Tower Access Road 12N from Oehman Road to McNab Lane. Oehman Road is a paved major collector road that accommodates speeds up to 50 mph. This change will increase the safety of motorists using public roadways in the project area. Vehicles traveling north on Oehman Road do not have sufficient sight distance to adequately see vehicles entering from the turbine access road, which causes unsafe conditions. PGE examined moving the road 250 feet south to improve sight distance, but that presented safety issues for the turbine haul trucks (too tight of a turning radius). The Sherman County Roadmaster suggested relocating the access road to McNab Lane, which is about 500 feet north of the current entrance. Relocating the access road will alleviate the sight distance issues and reduce the number of entrances onto Oehman Road. All construction standards and procedures outlined for the original route will apply to the McNab Lane route.

The existing entrance on Oehman Road will be retained for interim use for turbine component deliveries and flaggers will be used for safety during its use. This temporary entrance will be returned to its preconstruction condition following completion of construction of the facility.

Figure 2 shows the relocation of the access road and existing road alignment. The proposed McNab Lane entrance was surveyed during January 2009 for habitat type, water features, and cultural resources. The site is category 6, Agricultural land. Both access routes are approximately 0.1 miles in length. There would be no change to the acreage of temporary impacts and an increase of approximately 0.13 acres of permanently impacted area from the construction of the McNab Lane entrance (Modification 1).

Modification 2: Realignment of Tower Access Road From String 15 to String 15a

The proposed modification is to realign the access road to connect turbine string 15 and string 15a to accommodate farming practices in the area. The permitted access road extends from near Turbine 149 to 216 on a diagonal following a ridgeline and avoiding several erosion control diversions (Figure 3). The diagonal layout creates a narrow triangle of farmland which precludes the use of large equipment. In order to allow sufficient space for farm equipment to turn and permit a larger area for productive agriculture, the planned permanent route has been changed to follow the property line east and then north to turbine 218. This will prevent isolation of approximately 40 acres of agriculture land. The ridgeline will be temporarily used for



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216

crane and equipment access during construction. The temporary alignment will be returned to its preconstruction condition following completion of construction of the facility. All construction standards and procedures outlined for permanent access road construction in the site certificate will apply to the new permanent route.

Figure 3 shows both the temporary ridgeline route and permanent route along the property line. Previously un-surveyed portions of the new permanent route were surveyed by Ecology and Environment, Inc. (E & E) during January 2009 for habitat, water features, and cultural resources. Both routes occur in habitat category 6, Agricultural. The temporary crane path will be approximately 0.76 miles long and the permanent access road will be approximately 0.87 miles long. The modification will increase the amount of land temporarily impacted by approximately 2.3 acres. The amount of permanently impacted land will increase by approximately 1.0 acre, because the new access road is slightly longer than the original ridgetop route.

Modification 3: Realignment of Tower Access Road From String 16 to 17

Modification 3 is a realignment of the permanent access road connecting turbine string 16 to turbine string 17 to accommodate continued farming practices. It will also reduce impact category 4 CRP land. The permitted access road extends from Weir Road along a property line about 1700 feet then turns at a diagonal to follow the ridge line to String 17. Upon the request of the property owner, PGE plans to relocate the diagonal portion of the road to follow the property line east to a line between turbines 179 and 224. The change eliminates cutting across the field and permanently isolating a triangle of approximately 18 acres of cropland, in which the farmer would have difficulties maneuvering large equipment. The diagonal path will be retained for crane and equipment travel during construction and returned to agriculture use and CRP following completion of construction of the facility. All construction standards and procedures outlined for permanent access road construction in the site certificate will apply to the new permanent route.

Figure 4 shows both the temporary and permanent access routes. The temporary crane path will be approximately 0.71 miles long. The permanent access road will be approximately 0.63 miles long. The change will not affect the area of temporary impacts and will reduce the area of permanent impact by approximately 0.4 acres. This includes the reduction of impact to category 4 CRP habitat by 615 square meters. Both routes fall within permitted corridors under the third amended Site Certificate in areas previously surveyed for habitat, threatened and endangered species and cultural resources.

Modification 4: Construction of Crane Walk Path from Turbine String 13.1 to String 15.

Modification 4 is the construction of an additional temporary crane path from approximately turbine 137 to turbine 160. The crane path is needed to facilitate construction of the turbine strings. The crane path would be approximately 0.68 miles

long and 50 feet wide. The temporary alignment will be returned to its preconstruction condition following facility construction. The area of temporary impact includes approximately 2.8 acres of category 6 agricultural land.

The proposed crane path would cross a headwater ephemeral drainage to Biglow Canyon creek (Figure 5). The draw and its receiving stream do not qualify under OAR 141-85-0010 (111) and (84) because they do not provide spawning, rearing or food-producing areas for food and game fish. At the point of crossing there is no bed or bank apparent for a width of approximately 68 feet. Therefore the amount of modification needed for the crane path will be minimal. Dialogue has been initiated with the U.S. Army Corps of Engineers and Department of State Lands to confirm whether or not crossing where there is no defined bank will require a Section 404 removal/fill permit.

Modification 5: Modification of Collection System from Underground to Overhead Lines.

Modification 5 is to change a portion of the electrical collection system from underground lines to overhead 34.5 kV transmission lines. The distance from the eastern extent of Phase 3 to the Substation is approximately six miles. The change in installation methods would drastically reduce soil impacts because trenching would no longer be involved. This would also reduce potential for erosion and non-native species invasion.

Soil thermal resistance properties limit the load the underground collectors in this area can carry. The change involves using overhead lines with higher capacity instead of underground lines for this portion of the collector system. Soil disturbance would be greatly reduced in addition to less potential for noxious weeds or non-native species invasion. Transmission Option A, as shown on Figure 6, would run east to Weir Road and then south along Weir Road paralleling the existing Wasco Electric lines for approximately 1 mile within the existing transmission corridor to Emigrant Springs Road. It would then turn and continue east on Emigrant Springs Road for approximately 2 miles on the opposite side of the road from the existing Wasco Electric lines. Transmission Option B would run east to Beacon Road, then south along Beacon Road to Emigrant Springs Road where it would run on the opposite side of the road from the existing Wasco Electric line for approximately 3 miles.

Under both overhead 34.5 kV transmission options the collectors will be supported on wood poles buried within the road right of way to limit farming impacts. The closest residences to the proposed overhead line are two on Weir Road, near the intersection of Weir Road and Emigrant Springs Lane and one along Biglow Canyon Road (Figure 6).

Both overhead line options are approximately 6.5 miles long. The Site Certificate includes up to 15 miles of overhead transmission line. Transmission Option A or B will be the only overhead transmission lines currently proposed and/or built for the Biglow Wind Energy Facility and will not exceed the 15 mile threshold. If either overhead

transmission line option is implemented, the area of temporary impacts would be the same by way of surface area occupied by equipment, although soil disturbance depth and magnitude of impact would be much less. The area of permanent impacts would be increased by 0.1 acres.

Analysis Under OAR 345-027-0050(1)

PGE requests a determination that the proposed changes do not meet the threshold requirements for an amendment to the Site Certificate under OAR 345-027-0050(1). OAR 345-027-0050(2) is not directly relevant to PGE's request. OAR 345-027-0050(1) provides:

Except as allowed under sections (2) and (6), the certificate holder must submit a request to amend the site certificate to design, construct or operate a facility in a manner different from the description in the site certificate if the proposed change:

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

The proposed changes would not result in a significant adverse impact that the Council has not addressed in an earlier order.

The proposed modifications involve access road routes and collector lines. The benefits of the proposed changes are increased public and worker safety, better accommodated farming operations, decreased soil disturbance and reduced potential for non-native species invasion, and increased capacity for electrical transmission.

The total surface area impacted from the project will not change significantly. Approximately 0.9 acres (3,858 m²) of additional permanent impact are estimated due to road re-alignments and overhead transmission towers. Total temporary impacts from implementing all the proposed modifications would be increased by approximately 5.1 acres, although a decrease in impacts to category 4 CRP lands would result. Table 1 summarizes the impact area differences for the proposed modifications.

Table 1. Comparison of permanent and temporary impact acreage of the proposed modifications to the Biglow Canyon Project.*

Modification	Previous Layout		New Layout		Difference	
	Temporary Equipment Impact (acres)	Permanent Alignment (acres)	Temporary Equipment Impact (acres)	Permanent Alignment (acres)	Temporary Equipment Impact (acres)	Permanent Alignment (acres)
1) McNab Lane Access re-alignment	same	0.4	same	0.5	No Change	+ 0.1 Agriculture
2) Access Route String 15 to 15a re-alignment	1.2	2.5	3.5	3.5	+2.3 Agriculture	+1.0 Agriculture
3) Access Route String 16 to 17 re-alignment	same	2.0 Agriculture, 0.8 CRP		1.9 Agriculture, 0.6 CRP	No Change	- 0.2 Agriculture, -0.2 CRP
4) Crane path from turbine string 13.1 to 15.	None	None	2.8	None	+ 2.8 Agriculture	No Change
5) Beacon Lane Overhead Collector Line	Trenching, 23.6	Surface Disturbance Restored	23.6	0.1	Temp: No Trenching	+ 0.1 Agriculture
Total	24.7	5.7	29.9	6.5	+ 5.1 Agriculture	+ 1.1 Agriculture - 0.2 CRP

* All numbers are approximate

The certificate holder has evaluated the potential impacts of the changes shown on Figures 1-6 to determine whether the proposed modifications would adversely impact any resources protected by Council rules. No significant adverse impacts were identified.

Habitat Impacts

On December 10, 2008 and January 28th, 2009, Ecology & Environment, Inc. conducted a habitat survey at locations where transmission line and road re-alignments occur outside previously surveyed corridors (Figures 1,2,3,5, and 6). These locations include the road re-alignment on the north end of string 12 to connect with McNab Lane (Modification 1), a road re-alignment from the 15a turbine string eastward to turbine 216 (Modification 2), the crane path re-alignment from turbine 175 east to the 17 string (Modification 3), and the transmission line re-route up Beacon Lane instead of Weir Road, including a portion of the corridor for the overhead transmission line west of turbine 243 (Modification 5, Options A & B). The habitat found at the adjustment locations is dominated by cropland agriculture and minimal CRP. Nearly all modifications fall within Oregon Department of Fish and Wildlife's Habitat Category 6, which is classified as having "low potential for becoming essential or important habitat for fish and wildlife". The access road from string 16 to 17 will impact Category 4 CRP habitat, although the realignment will *reduce* the permanent impact in this area by approximately 615.7 m². The crane walk path from string 13.1 to 15 crosses an ephemeral drainage feature. At the point of crossing, there is no bed or bank. None of the proposed modifications will impact wetlands. Consequently, the proposed modifications will not result in significant impacts to habitat.

Threatened, Endangered and Sensitive Wildlife Species

As reflected in the Final Order dated June 30, 2006, only two federal or state-listed threatened or endangered species were identified as potentially impacted within the five-mile analysis area for the Biglow Canyon Wind Farm: the bald eagle and the peregrine falcon. In compliance with Condition 55 of the Site Certificate, the proposed changes to access roads and collector lines are within that analysis area. The modifications presented in this letter do not include any newly affected areas beyond those addressed in the Site Certificate.

The Council included in the Site Certificate, as Condition 56, a requirement for preconstruction surveys to determine whether nesting bald eagles or peregrine falcons have been documented to occur within two miles of the facility. That condition remains adequate to protect these species. The proposed changes do not threaten raptor nesting habitat and do not enter into nest buffer areas beyond the existing alignment. Raptor nesting surveys will be conducted in the spring to determine current nesting activity.

Wetlands and Rare Plant Habitat

CH2M Hill conducted site visits on March 31, 2008 and May 5, 2008 to identify wetlands or other jurisdictional waters of the United States and/or Oregon, and rare plant habitat. The areas studied included the areas affected by this change request, as shown in Figure 1 of the CH2M Hill report (Exhibit J of the Site Certificate Application). CH2M Hill identified six potentially jurisdictional waters of the State of Oregon and one wetland. The proposed modifications would not impact the wetland identified within the project area.

An ephemeral/intermittent drainage was identified along the crane walk path from string 13.1 to 15 (Modification 4). The channel flows northward and consists of discontinuous channelized runoff, which is punctuated by areas with no discernable bed or banks. At the proposed point of crossing, the channel is filled for a distance of approximately 68 feet. Above and below this section the feature is characterized on average by a bed width of 3 to 12 inches, depth of approximately 3 ft, and full bank width of approximately 5 ft. Water was observed in the channel above and below the crossing during the field survey conducted by E & E in January 2009; the depth of water was approximately 1 inch on average with low velocity. Upland herbaceous species and crop grass sparsely occurred in the channel where vegetation was present. The feature is a class 1 stream order, tributary to the Biglow Canyon drainage, which is tributary to the John Day River. The drainage does not meet the criteria for a water of the State as defined in OAR 141-85-0010 (111) because it is tertiary to a stream that provides spawning, rearing or food-producing areas for food and game fish. Because the crossing is located in a section where no bed and bank exists, formal consultation with the U.S. Army Corps of Engineers and the Department of State Lands may not be required.

The proposed change of underground collection lines to overhead lines (Modification 5 of this letter) includes "Area G" as identified in CH2M Hill's Habitat Report. The area surrounds the intersection of Weir Road and Emigrant Springs Lane as well as portions of Emigrant Canyon and includes the proposed overhead transmission line as well as two crane walk stream crossings within previously permitted construction corridors. Conditions 126 and 127 in the Site Certificate, as related to Amendment II, apply to the "Crossing G" area. Condition 126 requires that:

"prior to any disturbance...the certificate holder shall deliver to the Department the results of a spring survey of [the area] conducted during the appropriate bloom time for Northern wormwood and Henderson's ricegrass. If [these] or any other rare plant species are observed...the certificate holder shall ensure that construction and operation of the facility will have no impact on rare plant habitat."

Under condition 127, PGE will avoid any disturbance, including the placement of poles for the collector line, within 25 feet of the stream channel in the area identified as Crossing G on Figure J-1 of the third amendment to the site certificate.

According to CH2M Hill's report (Exhibit Q of the Site Certificate Application) Northern Wormwood is a federal candidate species (Oregon Department of Agriculture endangered) and Henderson's ricegrass is a federal species of concern and considered a candidate for listing under Oregon's Endangered Species Act. Habitat for both species exists in the project area. However, neither species was located during site surveys, and the likelihood of these, or another rare plant species, being impacted by the proposed modifications is low. The agricultural fields within which the proposed overhead lines would be placed are mono-culture cultivations that are regularly tilled; this highly disturbed environment has a very low probability of providing suitable habitat for sensitive species. Consequently, conditions 126 and 127 are adequate to protect any potential rare plant species in the modification areas.

Cultural Resource Impacts

In compliance with condition 69 of the Site Certificate, all previously un-surveyed areas of permanent or temporary disturbance affected by the proposed modifications were surveyed by Archaeological Investigations Northwest, Inc. on January 21, 22, and 23, 2009. A complete copy of the cultural resource report for the modification areas surveyed is attached to this letter and summarized below.

Figure 1 shows the eight areas surveyed, including:

- An area near turbine 249 and McNab Lane (Modification 1);
- Two areas proposed for an access road between turbines 149 to 216 (Modification 2);
- A proposed crane path between turbines 137 and 160 (Modification 4);
- Three corridor segments along a proposed overhead transmission line following Beacon Road (Modification 5, Option B); and
- A portion of the corridor for the overhead transmission line west of turbine 243 (Modification 5, Options A & B).

All of these areas were examined by experienced archaeologists using transects spaced no more than 15 meters (50 feet) apart. Ground surface visibility was excellent in all of the project areas due to recent agricultural plowing. Two shovel test units were excavated in areas where landforms indicated the potential for buried archaeological deposits.

There are no previously recorded archaeological or historical resources in any of the surveyed project areas. The fieldwork completed in January 2009, as described above, did not reveal historic-period or prehistoric artifacts in the shovel test units or in the pedestrian survey areas. Additionally, there was no evidence of archaeological or historical resources in these areas. This lack of evidence for archaeological or historical resources indicates that the modifications as proposed will not affect archeological or historical resources.

The Site Certificate includes Historic, Cultural and Archaeological conditions 69-73, which are adequate to protect any archaeological resources that may be discovered during construction. Pursuant to the Site Certificate, an archeologist will flag any sites found and will abide by an accidental discovery plan.

The proposed change would not impair the certificate holder's ability to comply with any site certificate condition.

Under the descriptions set forth in the Site Certificate, the site certificate "allows the certificate holder to construct other facility components (collector lines, access roads, meteorological towers) within micro-siting areas" (page.2, lines 32-34). The current site certificate provides for the construction of access roads (page 4, section III.A.2.f) and overhead collection lines (page. 3, section III.A.2.a).

The proposed change does not result in a significant permanent disturbance of a type or extent not previously evaluated. Moreover, as described above, the change does not create any impacts to habitat categories not already evaluated and does not create any adverse impact to other resources protected by Council rules. The Site Certificate already contains adequate conditions to address the potential impacts of road and transmission line construction. Site Certificate conditions 19 and 21 address modifications 2 and 3, and condition 20 addresses modification 4. Additional applicable conditions include road conditions (17), restoration of temporary disturbance (29, 62), designing aboveground transmission line structures (58, 118, 119), Historic, Cultural and Archaeological conditions (69-73) and construction traffic safety (79). The modifications proposed as shown on Figures 1-6 would not impair PGE's ability to comply with these or any other conditions as specified in the Site Certificate.

The proposed change would not require a new condition or a change to a condition of the site certificate.

As described above, the Site Certificate already contains adequate conditions to address any impacts (land use impacts, soil impacts, restoration of temporary disturbance areas, and impacts to previously undiscovered archaeological resources) that might arise from the modifications addressed in this request.

Where the additional overhead transmission line would parallel existing lines, there would not be a significant visual or aesthetic impact. The visual landscape is currently rural/agricultural with prominent developed elements including roadways, transmission lines, and wind turbines. The addition of 6.5 miles of overhead transmission line in this altered landscape would not significantly affect the area's aesthetic or character. Therefore the modification does not require a new condition be added to the Site Certificate under Scenic and Aesthetic Values (OAR 345-022-0080).

Evaluation required by OAR 345-027-0050(3)

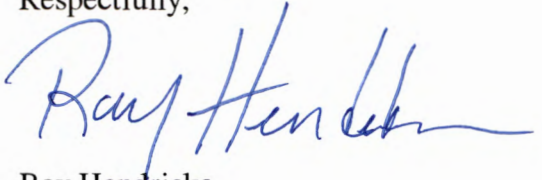
OAR 345-027-0050(3) requires that if the certificate holder concludes that a change does not require a site certificate amendment “based on the criteria in section (2), the certificate holder shall, nevertheless, complete an investigation sufficient to demonstrate that the proposed change in the design, construction and operation of the facility would comply with applicable Council standards.” The certificate holder’s justification for not requiring a site certificate amendment arises under OAR 345-027-0050(1), rather than OAR 345-027-0050(2). However, in order to ensure that the Department and the Council have all relevant information, we are providing the evaluation of compliance with applicable Council standards.

For the reasons described above, the certificate holder’s proposal to realign three access roads, add a crane path, and change portions of the collection system from underground to overhead line, as depicted on Figures 1-6, does not alter the Council’s prior findings that the Biglow Canyon Wind Project will comply with Council standards for Land Use (OAR 345-022-0030), Soil Protection (OAR 345-022-0022), Threatened and Endangered Species (OAR 345-022-0070), Fish and Wildlife Habitat (OAR 345-022-0060), and Historic, Cultural and Archaeological Resources (OAR 345-0220-0090). The proposed facility changes would not involve the construction of additional turbines and would only marginally increase the area of permanent disturbance (by 0.9 acres) associated with the Biglow Canyon Wind Farm. Therefore, the changes do not alter the Council’s prior findings of compliance with standards regarding Organizational Expertise (OAR 345-022-0010), Land Use (OAR 345-022-0030), Protected Areas (OAR 345-022-0040), Scenic and Aesthetic Values (OAR 345-022-0080), Recreation (OAR 345-022-0100), Public Health and Safety for Wind Energy Facilities (OAR 345-024-0010), Siting Standards for Wind Energy Facilities (OAR 345-024-0015), Siting Standards for Transmission Lines (OAR 345-024-0090), Structural Standard (OAR 345-022-0020), Public Services (OAR 345-022-0110), Waste Minimization (OAR 345-022-0120), and Noise Control (OAR 340-035-0035).

PGE has been working closely with landowners and agencies throughout the development of the Biglow Canyon project. It is through this cooperative effort that the proposed modifications arose. The changes specifically address improved farming conditions for landowners, increased public safety during construction and operation, and reduced soil disturbance from trenching for underground electrical lines. The modifications have been analyzed as outlined in OAR-345-027-0050 and would increase the total acreage of permanent impacts for the entire Biglow Canyon Project by only 0.5%. Permanent impacts to Category 6 Agricultural land would increase by 1.1 acres; permanent impacts to Category 4 CPR land would decrease by 0.2 acres. Consequently, for the reasons set forth in this letter, we request the Department’s determination that the proposed changes in access road locations and collector line construction do not require an amendment to the Site Certificate.

Thank you for your assistance. If you have any questions, please call me at 503-464-8519.

Respectfully,

A handwritten signature in blue ink that reads "Ray Hendricks". The signature is fluid and cursive, with a long horizontal stroke at the end.

Ray Hendricks
Portland General Electric

Enclosures

cc: Jaisen Mody



Figure 1: Proposed Modifications to Biglow Canyon Wind Farm

- | | | | | |
|------------|-------------------|---------------------------|----------------------------------|-----------------------------|
| ● Turbines | — Modified Road | ----- Modified Crane Walk | — Overhead Option A (Weir Rd.) | ■ Modification Survey Areas |
| — Roads | — Permitted Route | ==== Crane Walk | ⊕ Overhead Option B (Beacon Rd.) | ■ Permitted Corridors |



Figure 6: Modification 5 - Modification of Collection System from Underground to Overhead

- | | | | | |
|-------------|-------------------|---------------------------|----------------------------------|-----------------------------|
| ● Turbines | — Modified Road | - - - Modified Crane Walk | — Overhead Option A (Weir Rd.) | ■ Modification Survey Areas |
| - - - Roads | — Permitted Route | ==== Crane Walk | — Overhead Option B (Beacon Rd.) | ■ Permitted Corridors |



Figure 2: Modification 1 - Alternative Entrance to Tower Access Road 12N

- Turbines
- Modified Road
- Modification Survey Areas
- Crane Walk
- Permitted Route
- Permitted Corridors
- Roads



Figure 3: Modification 2 - Realignment of Tower Access Road from String 15 to 15a

- Turbines
- Modified Road
- Overhead Option A (Weir Rd.)
- Modification Survey Areas
- Crane Walk
- Permitted Route
- Overhead Option B (Beacon Rd.)
- Permitted Corridors
- Roads



Figure 4: Modification 3 - Realignment of Tower Access Road from String 16 to 17

- Turbines
- Modified Road
- Overhead Option A (Weir Rd.)
- Modification Survey Areas
- ==== Crane Walk
- Permitted Route
- Overhead Option B (Beacon Rd.)
- Permitted Corridors
- Roads



Figure 5: Modification 4 - Proposed Crane Path from Turbine 137 to Turbine 160

- | | | | | |
|------------|-------------------|---------------------------|----------------------------------|-----------------------------|
| ● Turbines | — Modified Road | - - - Modified Crane Walk | — Overhead Option A (Weir Rd.) | ■ Modification Survey Areas |
| — Roads | — Permitted Route | - - - Crane Walk | — Overhead Option B (Beacon Rd.) | ■ Permitted Corridors |

CONFIDENTIAL

Findings: (-)
County: Sherman
Townships: 2 North
Range: 17 and 18 East
USGS Quadrangle: *Quinton, Oreg.-Wash.*, 7.5-minute, 1971
Project Acres: 74
Acres Surveyed: 74
Project Type: Survey
Field Notes Location: AINW

**CULTURAL RESOURCE SURVEY FOR THE
BIGLOW CANYON WIND ENERGY PROJECT,
SHERMAN COUNTY, OREGON**

Prepared for
Ecology and Environment, Inc.
Portland, Oregon

February 23, 2009

REPORT NO. 2276

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March 12, 2009

Mr. Ray Hendricks
Portland General Electric
121 SW Salmon Street, 3WTCBR05
Portland OR 97204

Re: Biglow Canyon Wind Farm
Change Request #5

- Modification 1: Alternate Entrance to Tower Access Road 12N
- Modification 2: Realignment of Tower Access Road from String 15 to String 15a
- Modification 3: Realignment of Tower Access Road from String 16 to 17
- Modification 4: Construction of Crane Path from Turbine String 13a to String 15
- Modification 5: Modification of Collector Line from Underground to Aboveground

Dear Ray,

We have reviewed your request, dated February 20, for a Department determination under OAR 345-027-0050(5) that several modifications to the locations of access roads, collector lines and temporary crane paths do not require an amendment of the site certificate. Under OAR 345-027-0050(5), a certificate holder may ask the Department to determine whether a proposed change requires a site certificate amendment by submitting a request describing the proposed change, the certificate holder's analysis under OAR 345-027-0050(1) and (2) and the evaluation described in OAR 345-027-0050(3). The Department may refer its determination to the Council.

The proposed modifications included in Change Request #5 are depicted in figures attached to your request. The proposed modifications are as follows:

Modification 1 would change the permanent access road at the north end of Turbine String 12 near tower T-249 to intersect with McNab Lane rather than Oehman Road. The location of the previously-approved access road is shown on Figure 2b of the Request for Amendment #3, and the proposed change is shown on Figure 2 of your February 20 change request. The previously-approved access to Oehman Road would be used during construction and would be restored to preconstruction condition when construction in the area is completed. Both the proposed and previously-approved access road locations lie within agricultural land (Category 6).

Modification 2 would realign the access road between Turbine String 15 (near tower T-149) and Turbine String 15a (near tower T-216). The previously-approved access follows a diagonal (and more direct) line between the towers, but this creates a narrow triangle of farmland (approximately 40 acres) that interferes with the effective use of large farm





Oregon

March 12, 2009 Theodore R. Kulongoski, Governor

Page 2



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equipment. The previously-approved diagonal route will be used during construction for crane and equipment access and would be restored to preconstruction condition when construction is the area is completed. The realigned access road would run east from Turbine String 15 near T-149 and then make a right-angle turn north to T-216. Both the proposed realignment and the previously-approved access road locations lie within agricultural land (Category 6). Modification 2 is illustrated on Figure 3, attached to your change request.

Modification 3 requested realignment of the access road connecting Turbine Strings 16 and 17. Modification 3 is illustrated on Figure 4, attached to your change request.

Modification 4 would add a temporary crane path between Turbine Strings 13a (near T-137) and 15 (near T-160) to facilitate construction. The area affected by the crane path would be restored to preconstruction condition when construction is the area is completed. The proposed crane path lies entirely within agricultural land (Category 6). Modification 4 is illustrated on Figure 5, attached to your change request.

Modification 5 proposes two alternatives for aboveground 34.5-kV collector line routes between the facility substation on Herin Lane and the southern end of Turbine String 20 (the easternmost turbine string in the Biglow Canyon Wind Farm). Modification 5 is illustrated on Figure 6, attached to your change request. PGE requests approval of aboveground lines along this entire route, because "soil thermal resistance properties limit the load the underground collectors in this area can carry." The use of aboveground lines would enable the use of higher capacity lines.

One of the alternative routes (Option A) would follow a previously-approved route: diagonally southeast from the substation to Biglow Canyon Road, then east to Weir Road, then south on Weir Road to Emigrant Springs Lane, and finally east along Emigrant Springs Lane for about 2 miles to the southern end of Turbine String 20.

The other alternative route (Option B) would run diagonally southeast from the substation to Biglow Canyon Road, then east to Beacon Road, then south on Beacon Road to Emigrant Springs Lane, and finally east along Emigrant Springs Lane for about 3 miles to the southern end of Turbine String 20. Portions of the segment of Option B that runs along Beacon Road would lie outside the previously-approved site boundary.

We have determined that Modification 3 is unnecessary because the proposed access road alignment was approved in the Final Order on the Application (June 2006). I have addressed this in email correspondence (3/4/09), and you have concurred that Modification 3 can be withdrawn from this change request (3/6/09 and telephone discussion on 3/10/09).

In the referenced email and telephone discussions, you have confirmed that the only areas within Modification 5 that lie outside of previously-approved micro-siting areas are the portions of the segment of the Option B route that lie along Beacon Road. The current site certificate authorizes the use of aboveground collector lines within the previously-approved site boundary, as long as the total combined length of aboveground collector does not exceed 15 miles. PGE





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Accordingly, PGE is
already authorized to use aboveground collector lines as requested in Modification 5. 800-221-8035

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does not seek an increase in the 15-mile limit in this Change Request #5. Accordingly, PGE is already authorized to use aboveground collector lines as requested in Modification 5.

You have confirmed that the affected landowners are aware of Modifications 1, 2, 4 and 5 and that they agree with the proposed changes. In particular, the farmer affected by Modification #2 requested the change in the access road. You have also told us that the farmer who would be affected by the use of an aboveground "diagonal" collector between the substation and turbine location T-242 (Modification 5) believes that the diagonal route would be easier to farm around than an aboveground collector located along the edge of a road or property line.

In your letter, you conclude that an amendment is not required for these modifications based on the "threshold requirements" in OAR 345-027-0050(1). You state that OAR 345-027-0050(2) is not directly relevant to PGE's request.

With regard to the first factor under OAR 345-027-0050(1), we agree that the proposed modifications would not "result in a significant adverse impact that the Council has not addressed in an earlier order." Although the proposed modifications would affect land outside the previously-approved site boundary, the permanent footprint of the facility would not change significantly. The overall increase in the permanent footprint would be slightly more than one acre. As shown on Table 1 of your request, the combined impact of Modifications 1, 2, 4 and 5 would be a net increase in the permanent footprint of the facility of approximately 1.2 acres. Almost all of the permanent footprint increase is due to Modification 2, which would change the alignment of an access road at the request of the landowner. The proposed realignment would better accommodate farming operations, as described above. The combined impact of the proposed modifications would increase temporary disturbance during construction by approximately 5.1 acres, but the impact would be remedied by restoration of the areas affected upon completion of construction.

Your letter reports that your consultants, Ecology & Environment, Inc., conducted a habitat survey in the areas that the modifications would affect outside the previously-approved (and previously-surveyed) micrositing corridors. All of the new permanent and temporary disturbance for Modifications 1, 2, 4 and 5 would be on agricultural land (Category 6).

The proposed crane path (Modification 4) would cross an ephemeral drainage feature. The survey found that the drainage feature had no discernable bed or banks at the location of the proposed crane path crossing. Your letter states that the drainage does not meet the criteria for a "water of the State" as defined in OAR 141-085-0010 "because it is tertiary to a stream that provides spawning, rearing or food-producing areas for food and game fish." No removal or fill of this drainage is being proposed.

Modification 5 involves construction of aboveground collector lines along Weir Road and Emigrant Springs Lane. The lines would cross a stream channel identified as potentially State jurisdictional in PGE's Request for Amendment III (August 2008), Attachment 6 (CH2M HILL, *Biglow Canyon Wind Farm – Supplemental Wetlands and Waters Determination and Rare Plant Habitat Survey for Amendment III*, June 3, 2008). CH2M HILL identified the drainage ("Crossing G") as an ephemeral tributary to Emigrant Canyon. Both Weir Road and Emigrant Springs Lane cross this drainage feature. You note that Site Certificate Conditions 126





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and 127 protect "Crossing G." The conditions, however, refer to a different stream crossing. The conditions refer to a crossing that was identified in the Request for Amendment #2 (December 2006), Attachment 9 (CH2M HILL, *Biglow Canyon Wind Farm – Collection Line and Access Roads; Wetlands and Waters Determination and Rare Plant Habitat Survey*, December 4, 2006). The stream crossing that CH2M HILL identified as "Crossing G" in the December 2006 report is located between the north end of Turbine String 8 and tower T-6 in Turbine String 9. Condition 127 also refers to a wetland area ("POWHX") shown on Figure J-1 of the site certificate application, but this also is not the "Crossing G" near Weir Road and Emigrant Springs Lane that CH2M HILL identified in the June 2008 report.

Nevertheless, your letter represents PGE's commitment to "avoid any disturbance, including placement of poles for the collector line, within 25 feet of the stream channel identified as Crossing G on Figure J-1 of the third amendment to the site certificate." The correct reference to the third amendment should be to Attachment 6, Figure 2, of the Request for Amendment #3. Compliance with this commitment would avoid any significant impact to the identified drainage near the intersection of Weir Road and Emigrant Springs Lane.

We agree that the proposed modifications would not enlarge the analysis area for threatened and endangered species. The American peregrine falcon is no longer listed as threatened or endangered under State or federal law. The bald eagle is State-listed as threatened. There are no known bald eagle nest sites (or suitable habitat) in the areas affected by the proposed modifications. The proposed modifications would not result in a significant adverse impact to threatened or endangered plant or animal species that the Council has not previously addressed.

Your letter summarizes the results of cultural resource surveys conducted in January by Archaeological Investigations Northwest, Inc., in the areas affected by the proposed modifications that had not been previously surveyed. No previously-recorded archaeological or historical resources exist in any of the surveyed areas, and the January surveys did not find any historic-period or prehistoric artifacts. For this reason, we agree that the proposed modifications would have no significant adverse impacts on archaeological or cultural resources. Site Certificate Conditions 69 through 73 adequately protect any such resources that might be discovered during construction.

The second factor under OAR 345-027-0050(1) would require a site certificate amendment if the proposed change "could impair the certificate holder's ability to comply with a site certificate condition." Your request concludes that the proposed modifications would not impair PGE's ability to comply with any site certificate conditions. You list many site certificate conditions that would apply to the particular modifications requested. For example, you note that Modifications 2 and 3 are consistent with Conditions 19 and 21, which require the certificate holder to design access roads to minimize division of "farm units" and to minimize disturbance with farming practices. You note that Conditions 29 and 62 require restoration of areas temporarily disturbed during construction and that these conditions would apply to all areas temporarily disturbed by the proposed modifications.





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Your letter did not specifically discuss Conditions 13 and 103 (which require the certificate holder to construct the facility “substantially as described in the site certificate” and Condition 59 (which restricts the construction of “turbines and other facility components” within “500-foot corridors”). For Conditions 13 and 103, the issue is whether the portions of the proposed modifications that would affect areas not within the previously-approved site boundary would change the facility to such an extent that the construction would fall outside the scope of what is “substantially” described in the site certificate. The modifications would affect small areas outside the current site boundary (a total of approximately 1.2 acres) but would not significantly alter the design of the facility or the permanent footprint area affected. We agree that the proposed modifications would not impair PGE’s ability to comply with Conditions 13 and 103.

We addressed Condition 59 in a letter dated July 21, 2008, in response to Change Request #3. For the reasons discussed in that letter, we believe that the overriding concern addressed by Condition 59 is the potential impact of the facility on high-value wildlife habitat. The proposed modifications would avoid construction impacts within Category 1 and Category 2 habitat as required specifically by the condition. The modifications would not impair PGE’s compliance with subsection (b) of Condition 59, which requires facility components to be “the minimum size needed for safe operation of the energy facility.” Subsection (c) of Condition 59 requires PGE to build the facility components in the locations shown on Figure C-2 in the Application Supplement “to the extent possible.” As discussed in the July 2008 letter, we do not believe that a literal interpretation of the qualifying phrase, “to the extent possible,” serves the Council’s interest in efficient use of the site certificate amendment process. In consideration of the apparent concern for wildlife habitat impacts that Condition 59 addresses and the fact that the proposed modifications would have no substantial effect on wildlife habitat, we believe that approval of the modifications would not significantly impair PGE’s ability to comply with Condition 59.

The final factor under OAR 345-027-0050(1) would require a site certificate amendment if the proposed change “could require a new condition or a change to a condition in the site certificate.” We agree with your analysis that the proposed modifications do not require any new or changed conditions, because the site certificate already contains conditions adequate to address the impacts that might arise from the changes addressed by the modifications.

We agree with your evaluation under OAR 345-027-0050(3) that the proposed modifications would comply with applicable Council standards because the modifications do not involve changes that would alter the basis for the Council’s previous findings of compliance with the standards. We appreciate the thoroughness of your analysis and the supporting materials that you provided in your letter. The proposed realignment of access roads, additional crane path and routing options for aboveground collector lines do not significantly change the facts and circumstances addressed by the Council in making previous findings of compliance with each of the applicable Council standards.

We commend PGE for its efforts to work closely with landowners, as well as with local government and state agencies, in the development and construction of the Biglow Canyon Wind Farm. Your letter indicates that the proposed modifications “have arisen from practical





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considerations that are intended to maximize continued farming, improve energy conservation, and reduce soil disturbance.”

For the reasons discussed above, we have determined that a site certificate amendment proceeding is unnecessary to accommodate the proposed modifications. Please include a description of this change request and our determination in the next annual report required under OAR 345-026-0080 and Site Certificate Condition 122. In the annual report, please describe any unanticipated impacts that result from these modifications and describe how PGE addressed those impacts.

Sincerely,

John G. White
Senior Analyst

